

1996-1998 PROGRAMS OF STUDY



Certificate Programs



PROGRAM INFORMATION



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This section was [last updated](#) on July 16, 1997.

Program Information

A certificate program is a coherent set of academic courses, considerably narrower in scope and objectives than a degree or major, which leads to a certificate. A certificate program is normally oriented toward occupations and/or career skills. It contains a minimum of 12 units of courses numbered 3000 and above and a minimum of 20 total units unless the program consists entirely of 5000- and/or 6000-level courses, in which case the required minimum is 15 units. Each certificate program contains a required core of at least three courses and 12 units.

Some certificate programs have admission requirements which are described in the appropriate catalog chapter. (See the chapter describing the major most closely associated with the certificate.) To receive a certificate, you must earn a grade of "C" or better in each course applied to the program which is numbered below 6000 and a grade of "B" or better in each course applied to the program which is numbered 6000 and above. One course numbered below 6000 may be applied to a certificate program with a "CR" grade; no course numbered 6000 or above may be applied with a "CR" grade. At least 75% of the courses in a certificate program and all 5000- and 6000-level courses must be taken at Cal State Hayward for you to receive the certificate. You may meet this requirement with coursework taken at Cal State Hayward in matriculated or extension status. Prerequisites which are part of a regular degree major or mandatory General Education-Breadth requirements need not to be included within the certificate program, but must be clearly identified. No academic certificate program can have a title which is identical or similar to that of a legal license or certificate unless it meets the requirements for that license or certificate. You may not receive a certificate with the same title as the degree major, option, or minor which you have already received.

Certificate programs are designed to serve students who have a limited time to spend at Cal State Hayward and/or who wish to learn specific subjects, concepts, skills, and competencies. Most certificate programs add a specific occupational skill to an academic major which was previously completed or is being completed concurrently. Such programs are compatible with the related major and contain no prerequisites not included in the major and/or required G.E. Some certificate programs are designed to provide the preprofessional background for students contemplating transfer to other universities offering programs not available at Hayward. These certificate programs have been made compatible with the professional program by including all prerequisite or strongly recommended preparatory courses which are offered by Cal State Hayward. Still other certificate programs are the equivalent of minors which can be earned without a degree. These are normally completed by students who already possess a baccalaureate degree and want to add some skills in a new field without completing another entire degree. Such certificate programs meet at least the minimum requirements for an academic minor in the discipline. A Special Certificate Program is also available. See the [Special Major chapters](#).

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Cal State Hayward offers major programs leading to the baccalaureate degree in 37 fields of study (in addition to the Special Major) and minors in 63 fields.

MAJORS AND OPTIONS

Anthropology, B.A.

- Archeology and Biological Anthropology Option
- Socio-Cultural Anthropology Option

Art, B.A.

- Art History Option
- Art Studio Option
- Digital Graphics Option
- Multimedia Option
- Photography Option
- Pictorial Arts Option
- Spatial Arts Option

Biological Science, B.A.

- Ecology/Natural History Option
- General Biology Option
- Human Biology Option

Biological Science, B.S.*

- Biomedical Laboratory Sciences Option

Business Administration, B.S.**

- Accounting Option
- Advertising Option
- Business Computer Telecommunications Option
- Computer Information Systems Option
- Finance Option
- General Business Option
- Human Resources Management Option
- Managerial Economics Option
- Marketing Management Option
- New Ventures and Small Business Management Option
- Organizational Communication/Public

Latin American Studies, B.A.

Liberal Studies, B.A.***

- African American Studies Option
- American Studies Option
- Anthropology Option
- Art Option
- Bilingual-Cross Cultural Studies Option
- Business Studies Option
- Dance Option
- Early Childhood Studies Option
- Economics Option
- English Option
- Environmental Studies Option
- Ethnic Studies Option
- Geography Option
- History Option
- Human Development Option
- Kinesiology Option
- Language Studies Option
- Latin American Studies Option
- Life Sciences Option
- Mass Communication Option
- Mathematics Option
- Modern Languages Options (French, Italian, Portuguese, Russian, Spanish)
- Music Option
- Philosophy Option
- Physical Sciences Option
- Political Science Option
- Psychology Option
- Recreation Option
- Sign Language Option

Relations Option
 Production and Operations Management
 Option
 Purchasing and Materials Management
 Option
 Real Estate Management Option
Chemistry, B.A.*
 Biochemistry Option
Chemistry, B.S.
Computer Science, B.S.
Criminal Justice Administration, B.S.
 Corrections Option
 Law Enforcement and Administration
 Option
Economics, B.A.
English, B.A.
 British and American Literature Option
 Creative Writing Option
 Interdisciplinary Language and Literature
 Studies Option
 Language and Discourse Option
 New Voices in English Literature Option
Environmental Studies, B.A.
 Ecology/Life Sciences Option
 Environmental Health Option
 Human Environment Option
 Land Use Planning and Management
 Option
 Physical Environment Option
Ethnic Studies, B.A.
 African American Studies Option
 Asian American Studies Option
 Mexican American/Latino Studies Option
 Native American Studies Option
French, B.A.
Geography, B.A.
Geography, B.S.
Geology, B.A.
Geology, B.S.
Health Sciences, B.S.
History, B.A.
Human Development, B.A.* ***
 Adolescence Option
 Adult Development Option
 Childhood Option
 Gerontology Option
International Studies, B.A.
Kinesiology, B.S.
 Athletic Training Option
 Exercise Nutrition and Wellness Option
 Exercise Physiology Option
 Pre-Physical Therapy Option
 Physical Education Teaching Option
 Special Studies Option
 Sociology Option
 Special Education Option
 Speech Communication Option
 Speech Pathology and Audiology Option
 Statistics Option
 Theatre Option
 Women's Studies Option
Mass Communication, B.A.*
 Advertising Option
 Broadcasting Option
 Journalism Option
 Public Relations Option
Mathematics, B.S.
 Applied Mathematics Option
 Mathematics Teaching Option
 Option A
Music, B.A.
Nursing, B.S.
Philosophy, B.A.*
 Religious Studies Option
Physical Science, B.S.
Physics, B.S.
Political Science, B.A.*
 Pre-Law Option
 Public Affairs and Administration Option
Psychology, B.A.
Psychology, B.S.
 Human Factors Psychology Option
 Industrial Psychology Option
Recreation, B.S.*
 Environmental Recreation Option
 Recreation Therapy Option
Sociology, B.A.
 Social Services Option
 Sociology Option
Spanish, B.A.
Special Major, B.A.
Special Major, B.S.
Speech Communication, B.A.
 General Speech Communication Option
 Intercultural Communication Option
 Interpersonal Communication Option
 Organizational Communication/Public Relations Option
 Public Communication Option
Speech Pathology and Audiology, B.S.
Statistics, B.S.
Theatre Arts, B.A.
 Acting Option
 Creative Arts Option
 Dance Option
 Directing Option
 Technical and Design Option

MINORS

Advertising	International Studies
African American Studies	Italian
American Studies	Kinesiology
Anthropology	Latin American Studies
Art History	Marketing
Art Studio	Mass Communication
Asian American Studies	Mathematics
Asian Studies	Mexican American/Latino Studies
Biological Sciences	Multimedia
Business Administration	Music
Business Computer Telecommunications	Native American Studies
California Studies	Philosophy
Chemistry	Photography
Cognitive Science	Physics
Communication Skills	Political Science
Computer Information Systems	Portuguese
Computer Science	Psychology
Creative Writing	Recreation
Criminal Justice Administration	Religious Studies
Dance	Russian
Economics	Sign Language
English	Sociology
Environmental Studies	Spanish
Ethnic Studies	Speech Communication
French	Speech Pathology and Audiology
Geography	Statistics
Geology	Taxation
German	Theatre
History	Urban Studies
Human Development	Women's Studies
International Business	Youth Services Administration

CERTIFICATE PROGRAMS

Certificate in Adult Community Education
Certificate in Art Museum and Gallery Studies
Certificate in Cartographic Communication
Certificate in Coaching
Certificate in Commercial Physical Education
Certificate in Commercial Recreation

Certificate in Organizational Communication
 Certificate in Pre-Engineering
 Certificate in Pre-Physical Therapy
 Certificate in Special (Adapted) Physical Education
 Certificate in Therapeutic Recreation
 Certificate in Volunteer Administration
 Certificate in Youth Services Administration
 Special Certificate

ACADEMIC ORGANIZATION

California State University, Hayward is organized into four schools: Arts, Letters and Social Sciences (ALSS); Business and Economics; Education and Allied Studies; and Science. Each school has significant responsibility for its own curricula, faculties, students, and budgets. The school dean, aided by an associate dean and an administrative assistant, is the chief administrative officer of each school. (The names of these officers appear in the University Administration chapter.) The Deans' offices are located as follows: ALSS, eighth floor of Warren Hall (885-3161); Business and Economics, second floor of the Music and Business Building (885-3311); Education and Allied Studies, first floor of the Art and Education Building (885-3072); and Science, first floor of the North Science Building (885-3441). The Special Major is administered by the Associate Vice President, Curriculum and Academic Programs, on the eighth floor of Warren Hall (885-3716). The organizational table (available as a [GIF Image](#) or a [PDF Document](#)) indicates the departments and programs of each school and the interdisciplinary programs. (You may need a viewer from [Adobe](#) in order to display the PDF document.)

School of Arts, Letters and Social Sciences

The School of Arts, Letters and Social Sciences is the largest in the university and includes 18 departments in addition to several interdisciplinary programs. It embraces the creative arts, the humanities, the social and behavioral sciences, and several applied disciplines.

Baccalaureate Degree Majors

Anthropology (B.A.)
 Art (B.A.)
 Criminal Justice Administration (B.S.)
 English (B.A.)
 Environmental Studies (B.A.)
 Ethnic Studies (B.A.)
 French (B.A.)
 Geography (B.A., B.S.)
 History (B.A.)
 Human Development (B.A.)****
 International Studies (B.A.)
 Latin American Studies (B.A.)
 Liberal Studies, B.A.****
 Mass Communication (B.A.)
 Music (B.A.)
 Philosophy (B.A.)
 Political Science (B.A.)
 Sociology (B.A.)

Criminal Justice Administration
 Dance
 English
 Environmental Studies
 Ethnic Studies
 French
 Geography
 German
 History
 Human Development
 International Business
 International Studies
 Italian
 Latin American Studies
 Mass Communication
 Mexican American/Latino Studies
 Multimedia
 Music
 Native American Studies
 Philosophy

Spanish (B.A.)

Speech Communication (B.A.)

Speech Pathology and Audiology (B.S.)

Theatre Arts (B.A.)

Academic Minors

Advertising

African American Studies

American Studies

Anthropology

Art History

Art Studio

Asian American Studies

Asian Studies

California Studies

Cognitive Science

Communication Skills

Creative Writing

Photography

Political Science

Portuguese

Religious Studies

Russian

Sign Language

Sociology

Spanish

Speech Communication

Speech Pathology and Audiology

Theatre Arts

Urban Studies

Women's Studies

Certificate Programs

Art Museum and Gallery Studies

Cartographic Communication

Organizational Communication

The Program for Adult College Education

Students who have completed their lower-division general education requirements may elect to earn a Bachelor of Arts degree (B.A.) in Liberal Studies or Human Development via the Program for Adult College Education (PACE), an upper-division program of instruction in formats convenient for working individuals. The scheduling of classes on one night per week and Saturdays, and the use of audio and visual materials enable students to combine their studies with the demands of full-time employment or other daytime responsibilities. For more information, [see "PACE"](#) in the General Information chapter. Also, call the PACE office at (510) 885-2989.

School of Business and Economics

Mission Statement:

The School of Business and Economics provides excellence and innovation in integrating quality teaching and learning, with applied research and relevant experience to a diverse clientele from the San Francisco Bay Area to the global community.

Core Values:

1. Value diversity in students, faculty, staff and other stakeholders
2. Commitment to and synergy between regional and global constituencies
3. Commitment to excellence in teaching, curriculum delivery, and applied research
 - Latest technology and delivery systems
 - Flexibility in program delivery
4. Innovation and cooperative approach to business problems
 - Business-ready curriculum
 - Economic development initiatives
 - Team-oriented approach
 - Capitalize on opportunities
 - Entrepreneurial orientation
5. Commitment to ethics, honesty and integrity
6. Creating a collegial and supportive work environment
7. Commitment to outstanding service to our clientele

The undergraduate programs in business administration have been accredited by the American Assembly of Collegiate Schools of Business.

Baccalaureate Degree Majors	Business Administration
	Business Computer Telecommunications
Business Administration (B.S.)	Computer Information Systems
Economics (B.A.)	Communication Skills
	Economics
Academic Minors	International Business
	Marketing
Advertising	Taxation

School of Education and Allied Studies

The mission of the School of Education and Allied Studies is to improve the quality of life within the communities it serves by offering excellent instructional programs which embrace not only the understanding of diverse subject matter but also the application of this subject matter to various professional roles. The school seeks to prepare graduates who will be active contributors to our complex, diverse society as we approach the twenty-first century.

The School offers programs for liberal arts instruction and professional preparation of undergraduates in the fields of kinesiology and recreation.

Baccalaureate Degree Majors Certificate Programs

Kinesiology (B.S.)	Adult Community Education
Recreation (B.S.)	Coaching
	Commercial Physical Education
Minors	Commercial Recreation
	Pre-Physical Therapy
Kinesiology	Special (Adapted) Physical Education
Recreation	Therapeutic Recreation
Youth Services Administration	Volunteer Administration
	Youth Services Administration

School of Science

The School of Science offers programs that provide a broad education in the physical, life, and health sciences; and in mathematics, statistics, and computer science. The career flexibility available to science students is one of the main advantages of a degree in the science area. The baccalaureate programs are designed to prepare students for graduate study and for careers in industry, government, and public school teaching.

Baccalaureate Degree Majors Minors

Biological Science (B.A., B.S.)	Biological Sciences
Chemistry (B.A., B.S.)	Chemistry
Computer Science (B.S.)	Computer Science
Geology (B.A., B.S.)	Geology
Health Sciences (B.S.)	Mathematics
Mathematics (B.S.)	Physics
Nursing (B.S.)	Psychology
Physical Science (B.S.)	Statistics

Physics (B.S.)	
Psychology (B.A., B.S.)	Certificate Program
Statistics (B.S.)	
	Pre-Engineering

Interdisciplinary Programs

Interschool interdisciplinary programs are administered by the Associate Vice President, Curriculum and Academic Programs.

Baccalaureate Degree Majors Certificate Program

Special Major (B.A., B.S.)	Special Certificate
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Course Offering Key

Quarter of offering may be subject to change without prior notice.

F	-	Fall quarter
W	-	Winter quarter
Sp	-	Spring quarter
Su	-	Summer quarter
A	-	All quarters
Y	-	At least once a year
()	-	Unit credits appear in parentheses following title of course
Tent.	-	Tentatively (used with one of the basic symbols above)
Alt.	-	Alternate (used with one of the basic symbols above)

The lack of a symbol indicates uncertainty about offering the course in 1996-98.

Course Numbering Key

The numbering of courses is intended to describe the level at which they are offered. Any student, however, may enroll for any course if he or she has completed the listed prerequisites, except for certain graduate courses. See page 62 for explanation of CAN numbers.

0800-0999	Remedial courses (not for baccalaureate degree credit);
1000-1999	Freshman level
2000-2999	Sophomore level
3000-3999	Junior level
4000-4999	Senior level
5000-5999	Post baccalaureate and professional level
6000-6999	Graduate level
7000-7699	Upper division level extension*****
7700-7999	Graduate level extension*****

* It is not necessary to select an option in these majors.

** A minor from outside Business/Economics may be substituted for an option.

*** These degrees are also offered through the Program for Adult College Education (PACE).

**** The upper division portions of these majors can be completed via the Program for Adult College Education (PACE).

***** See quarterly bulletin of Extended and Continuing Education.

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What is a baccalaureate degree?

A baccalaureate degree, often called a bachelor's degree, is the academic title that the university confers upon you after you have successfully completed a certain number of college credit units (186 quarter units at Cal State Hayward), including certain specified patterns of coursework (for example, General Education, a major) and a minimum number of advanced units (60 upper division) with a grade point average of at least 2.00 (on a 4.00 point scale), and various other requirements specified in Title 5 of the *California Code of Regulations*.

Cal State Hayward offers two baccalaureate degrees, a **Bachelor of Arts (B.A.) degree** and a **Bachelor of Science (B.S.) degree**. The only legal difference between the two degrees is that a B.A. degree can require no more or less than 186 quarter units, whereas a B.S. degree can require 186-198 quarter units. The degree awarded appears on your diploma and permanent record.

Before the 1960s, it was common to refer to baccalaureate degrees as four-year degrees because students went to school three quarters, or two semesters, a year and earned 15-16 units a term. Each year had its own title: first year, freshman; second year, sophomore; third year, junior; and fourth year, senior. The first two years were called lower division and could be completed at a community college, the second two were called upper division and had to be completed at the baccalaureate degree-granting institution. Now, most students have commitments other than college, as a result they take fewer units, occasionally do not attend every quarter, and consequently take longer to complete their degrees. (Nevertheless, the university does offer a "Four-Year Degree Pledge Program" for full-time students.)

Cal State Hayward still uses the four designations but defines them by units, not years. Our designations are the following: 0-44 units, **freshman**; 45-89 units, **sophomore**; 90-134 units, **junior**; and 135 and more units, **senior**. You can complete a maximum of 105 units at a community college and transfer them to a CSU campus. Cal State Hayward operates on a year-round, four-quarter system. Hence, by taking a full academic load of 15-16 units per quarter, four quarters a year, you can graduate in three years.

What are the requirements for the baccalaureate degree?

There are three major parts of your baccalaureate degree and seven basic requirements defined in the California Code. Most of your courses will fall into one of the three major parts of the degree: (1) the **General Education (G.E.)** requirements for basic skills and breadth, (2) the **major** for depth in one field, and (3) **free electives** which you can use to shape your education in directions you choose. Each of these will be described in later sections.

These are the seven basic requirements for your B.A. or B.S. degree defined in the Code:

1. Completion of a 72 quarter-unit program of General Education-Breadth requirements (details to follow).
2. Completion of one of the **majors** described in this catalog.
3. Completion of the **U.S. history, U.S. Constitution, and California state and local government requirement** through coursework or exams (details to follow).
4. Satisfaction of the **University Writing Skills requirement** by passing two freshman-level English composition courses and the upper division Writing Skills Test (details to follow).
5. Completion of a minimum of **45 quarter units in residence** (enrolled as an admitted student) at Cal State Hayward, including at least 36 upper division units, 18 units in your major, and 12 units of G.E. (Units you earn at other institutions, units you earn through the Cal State Hayward Extension Division such as Open University, and units you earn through Credit-by-Examination are **not** residence units.) Your last two quarters of enrollment must be at Cal State Hayward if you are to receive your degree from us. Waivers may be possible for extenuating circumstances. Contact your advisor for information.
6. Completion of at least **186 quarter units** for your **B.A.** degree or **186-198 quarter units** for your **B.S.** degree. At least **60** of these units must be in **upper division** courses (courses numbered 3000 and above). No more than 60 units can be graded in the Credit/No Credit pattern (CR/NC or A/B/C/NC). No more than 36 units can be in Extension/Open University/correspondence credit, and no more than 45 units can be earned credit-by-examination (excepting Advanced Placement).
7. Attainment of a **grade point average of at least 2.00** on a 4.00 scale in all units you attempt at Cal State Hayward, all the units you attempt including transfer units, and all units you attempt in the major regardless of the department in which they are taught.

In addition, if you start at Cal State Hayward with fewer than 15 quarter units earned, you must enroll in **GS 1000 University Seminar**, in your first quarter. (Spring and Summer admits enroll in the Fall.)

What are my catalog rights for graduation?

To meet the seven requirements listed in the previous section, you must follow the specifics listed in this catalog. As long as you maintain attendance by enrolling in at least two quarters each calendar year, your degree requirements will remain those in this catalog. However, you may elect to meet the requirements of the catalog in effect at the time you graduate. These principles are called your "catalog rights."

If you are absent due to an approved Educational Leave or to attend another accredited college or university, you will not lose your catalog rights as long as you are not away for over two years.

If you are a transfer student who attended another CSU campus and/or California community college, you have Cal State Hayward catalog rights from the time you began there if you have maintained attendance as noted above.

Your catalog rights for your major (and minor if you pursue one) are governed by the catalog in effect at the time you declare your major (or minor). So if you don't declare a major during the effective dates of this catalog or later change your major, the catalog in effect at the time you declare your major of graduation will govern your major requirements. You will not lose your catalog rights for G.E. and other graduation requirements by declaring or changing your major, if you maintain attendance.

If you do break attendance by not enrolling in two quarters in a calendar year, your graduation requirements will be governed by the catalog in effect at the time you reenter.

What are the General Education-Breadth requirements?

Through our G.E. requirements, the university attempts to insure that you have made significant progress toward becoming a truly educated person. In particular, when you complete the G.E. requirements, you should have:

1. Achieved the ability to think clearly and logically, to find and examine critically information, to communicate orally and in writing, and to perform quantitative functions above the level of intermediate algebra.
2. Acquired appreciable knowledge about your own body and mind, about how human society has developed and how it functions, about the physical world in which we live, about the other forms of life with which we share the world, and about the cultural endeavors and legacies of human civilization.
3. Come to an understanding and appreciation of the principles, methodologies, value systems, and thought processes employed in human inquiries.
4. Come to understand and appreciate the contributions to knowledge and civilization that members of diverse cultural groups and women have made.

The Cal State G.E. program requires at least 72 quarter units (a minimum of 18 courses) distributed over six areas and governed by three general requirements. The lists of courses meeting the requirements change from quarter to quarter and are not included in this catalog because they rapidly become outdated. **The list of courses currently meeting each requirement appears in the *Class Schedule* each quarter.**

The G.E. requirements are described below in two ways, a tabular summary and the other a text specifying the intent of each area and subarea requirement. The latter will be useful to you in attempting to decide whether to petition a course taken elsewhere for G.E. credit.

Before beginning G.E. and other degree requirements, be certain you have developed the **entry-level learning skills** in English composition and mathematics necessary for collegiate success. Take the EPT/ELM tests before entry (if not exempt by the other test scores listed in the Registration chapter). If your skills are such that you can begin taking college-level English composition and math immediately, do so at your earliest opportunity, as a freshman if at all possible. (Many majors, including Business Administration and the sciences, require much more math than the single G.E. course.)

If your skills are not at the collegiate level, enroll in the appropriate remedial course(s) (again, described in the Registration chapter) in your first quarter and complete them as soon as possible, as a freshman if at all possible. You will not be allowed to register once you have earned 90 units if your first freshman English composition course (ENGL 1001 or equivalent for G.E. Area A2) and your quantitative reasoning course (G.E. Area B4) have not been passed. Cal State Hayward requires a second freshman English composition course, which may be applied to the G.E. Elective requirement and must be passed before you attempt the Writing Skills Test in your first quarter in junior status (90 or more quarter units).

If for some reason you were not able to take the EPT and/or ELM before enrolling, you must take the necessary test(s)

in your first quarter or risk not being able to register for the next quarter. Every quarter you delay taking the EPT/ELM delays your ability to begin the basic skills courses in the G.E. program and may prolong the time you need to complete your degree. Get them out of the way before you first enroll!

A word is necessary about the relationship of G.E. to your major. No course in your major department, as designated by course prefix (for example, ANTH, ENGL, GEOL, MUS) can be applied to G.E., *even if not applied to your major requirements*. For Business Administration majors the forbidden prefixes are ACCT, CIS, FIN, MGMT, MKTG, and TC. THEA and DANC cannot be used by Theatre Arts Majors. The only exceptions to this rule are the following: SPCH 1000 in Area A1, ENGL 1001 in Area A2, MATH 1304 in Area B4, MLL course in another language from those in the major in Area C, and ENGL 1002 in Area G.

On the other hand, courses required for your major, but offered by other departments (for example, Math for Geology majors, MLL for English majors), can be applied to G.E. And Liberal Studies, which offers no courses, subsumes G.E. in its major.

This is why it is important to know your major before you get too far into the G.E. program. Most majors specify certain G.E. courses for their students. If you take a course other than the one specified, you will have to take the required course anyway. Also, if you don't know your major, you could take a course that subsequently ends up in your major and lose it for G.E. credit.

[General Education Requirements \[Table\]](#)

Narrative Description of G.E. Requirements

Area A: Communication in the English Language (12 units)

A1 Oral Communication (4 units)

Criteria: A course meeting the Oral Communication requirement is based upon communication theory presented through lecture, discussion, and reading. It must provide several opportunities for a planned sequence of speaking and listening experiences in at least two of the following modes: (a) small-group (problem-solving) discussion, (b) interpersonal communication, (c) expository discourse presented extemporaneously, (d) argumentative and persuasive discourse presented extemporaneously. The course must provide you with constructive criticism of both substance and form of communication, and reflect awareness of the cognitive and emotional conditions dealt with by people who communicate with others. You will complete at least five oral assignments demonstrating increasing skill in oral communication.

A2 Written Communication (4 units)

Criteria: A course meeting the freshman composition requirement assumes that you should, at the time of entry, be able to write brief essays showing adequacy in (a) selection of a controlling idea appropriate to the given writing task, (b) coherent development of that idea to a reasoned conclusion, (c) use of sentences that demonstrate some structural variety and contain language appropriate to the audience and purposes, and (d) control of conventions of standard written English (relative freedom from errors such as fragments, run-together sentences, faulty agreement, and improper pronoun reference) and of mechanics (capitalization, spelling, and punctuation). The work of the freshman English course is to strengthen these skills by extensive practice in the writing of expository essays suitable for college-level credit.

You should take the introductory college-level composition course within the first year of enrollment. No student who has earned 90 or more baccalaureate-level quarter units without having satisfied Area A2 will be permitted to register for additional coursework at Cal State Hayward. Remedial courses, if required as preparation, may not be applied to the General Education-Breadth Requirements or to the baccalaureate degree. No student with an EPT score below 151 can register for a course satisfying Area A2 without remediation.

A3 Critical Thinking (4 units)

Criteria: A course meeting the critical thinking G.E. requirement focuses primarily on: (a) identifying, analyzing,

evaluating, and presenting arguments, (b) learning elementary inductive and deductive reasoning, and (c) recognizing formal and informal fallacies. You will complete a minimum of six assignments demonstrating critical thinking in a variety of contexts. At least four of these assignments must be written. A critical thinking textbook or its equivalent is required in all courses meeting this requirement.

Area B: Natural Sciences and Mathematics (16 units)

Criteria: G.E. courses in the physical and life sciences teach the methodologies of science, including systematic observation and experimentation. The laboratory course required in this General Education Area provides firsthand experience in making observations in the natural world or laboratory, the techniques and procedures of making those observations, and techniques and procedures for organizing and analyzing observations. In addition to a working knowledge of the methods of science, you will acquire an understanding of the fundamental principles of particular disciplines.

B1 One course in Physical Science (4 units)

B2 One course in Life Science (4 units)

B3 One course which involves some immediate participation in a Laboratory activity (satisfied simultaneously with B1, B2, or B5)

B4 One course in Quantitative Reasoning (4 units)

Criteria: G.E. courses in quantitative reasoning teach you skills and concepts that build on what you have previously mastered in intermediate algebra. Courses which satisfy Area B4 foster the development and use of formal skills and concepts appropriate to the specific course. They emphasize problem solving, reasoning skills, and the communication of mathematical ideas.

If you have earned 90 or more baccalaureate-level units without having satisfied Area B4, you will not be permitted to register for additional coursework at Cal State Hayward.

B5 Electives in the Natural Sciences (1-4 units)

You need an additional course or courses from the B1 and/or B2 lists to complete the minimum four courses and 16 units in this area. If you use a psychology course to meet the life science requirement in B2, you may not take additional units of psychology in the B5 Electives.

Area C: Humanities (16 units)

No Cal State Hayward course used to meet the U.S. History, Constitution, and American Ideals Requirement may be applied to Area C.

C1 Fine Arts (4 units)

Criteria: Courses meeting this requirement have as their major component the integration of evaluative and descriptive aspects of the history, theory, aesthetics, and criticism of different works, forms, styles, and schools of art.

C2 Letters (4 units)

Criteria: Courses in this area examine significant written and oral texts of the creative intellect. The major goals are: (a) to teach the critical examination of ideas and theories through the use of historical, linguistic, literary, philosophical, and rhetorical approaches and methods; and (b) to encourage understanding of enduring human concerns and the intellectual and cultural traditions within which they arise.

C3-4 Electives in the Humanities (5-8 units)

You need two additional courses from the C1 and C2 lists to complete the minimum four courses and 16 units in this area. At least one of these two electives must be a 4-unit **upper division** course in the areas of history, literature, or philosophy that includes a significant writing component.

Area D: Social Sciences (16 units)

Criteria: Courses in this area acquaint you with basic principles, methodologies, theoretical problems, and applications in those sciences whose field of study is human behavior in its social environment. No Cal State Hayward course used to meet the U.S. History, Constitution, and American Ideals Requirement may be applied to Area D.

D1-3 Basic Requirements (12 units)

Criteria: Courses fulfilling the Basic Social Science requirements present the fundamental principles and methods of inquiry in social science disciplines. Three survey courses, in three different departments, are required.

D4 Continuation Requirement (4 units)

Criteria: Courses fulfilling the continuation requirement apply the methodologies or research findings of the social sciences to analyzing social, economic, political, environmental, or cultural issues. The course taken to meet this requirement must be **upper division** and must be in a department in which you have completed an Area D 1-3 Basic Requirements course.

Area E: Capstone (4 units)

Criteria: Courses fulfilling this requirement bring together knowledge and methods from a variety of disciplines to address a particular topic focusing on humans as integrated entities. Area E courses may be organized around issues of long-standing concern or contemporary interest. Courses fulfilling this requirement must be **upper division**. These courses include knowledge and methods from two or more of the G.E. Areas B (Natural Sciences and Mathematics), C (Humanities), and D (Social Sciences). These courses require a major written assignment designed to demonstrate that you can apply knowledge from different disciplines to examine critically the central issue addressed in the course. We encourage you to enroll in an Area E course after completing the General Education requirements in Areas A, B, C, and D.

Area F: Performing Arts and Activities (4 units)

Criteria: Courses in this area provide an opportunity to develop an appreciation of the visual and performing arts and activities through direct experience. Students are guided by participation toward an understanding of the techniques, processes, and possibilities inherent in such aspects of culture as art, theatre, music, creative writing, and sport. Courses in this area enhance student development through accomplishment. At least 40% of the work in these courses must be activity or performance.

Area G: G.E. Electives (4 units)

Criteria: A second course in freshman English composition is required for graduation from Cal State Hayward and may be used to satisfy the 4 remaining units of the 72-unit G.E. program. Transfer students whose second composition course was applied to another G.E. Area, such as A3, may satisfy their remaining 4 units with an additional G.E. course from any section of G.E. Areas A-F.

General Requirements

- a. A total of **72 quarter units** of coursework are required to meet the General Education-Breadth Requirements. No course taken in the major department, as designated by course prefix, may be applied to the 72-unit G.E. program unless certified by California community colleges and/or other CSU campuses. A course required for the major, but not offered by the major department, may be applied to G.E. No course taken to satisfy the U.S. History, U.S. Constitution, and California State and Local Government requirement may be applied to G.E. unless certified by California community colleges or other CSU campuses. No cooperative education courses may be applied to G.E.
- b. A minimum of **12 quarter units** of the General Education-Breadth Requirements must be taken in residence at Cal State Hayward. (You are in residence if admitted to, and regularly enrolled in the university).

- c. A minimum of **12 quarter units** of upper division (3000 and above) coursework applicable to the General Education-Breadth Requirements must be taken after you attain upper division status (90 or more quarter units). You **cannot** use community college courses to satisfy this requirement. You must take these 12 units in Areas C4, D4, and E. No course taken in the major department, as designated by course prefix, may be applied to the upper division G.E. requirement.
- d. A minimum of **3 quarter units** of coursework applicable to the General Education-Breadth Requirements must recognize the **contributions to American civilization and knowledge that members of various cultural groups and women have made**. Coursework must be applicable to G.E. Areas A, B, C, D, E, or F. Courses satisfying this requirement must focus on African Americans, Asian Americans, Hispanic Americans, Native Americans, gays/lesbians, and/or women in the United States.

Transfer Students

Under Chancellor's Executive Order No. 595, up to 58 quarter (39 semester) units of the CSU General Education-Breadth Requirements may be **certified by California Community Colleges and other CSU campuses**. You must request the certification; it is not automatic except for the A.A. in University Studies programs. Although many certification forms may show more than the maximum number of certifiable units, you must still complete 12 upper division residence G.E. units at Cal State Hayward. If you transfer to Cal State Hayward with the **Intersegmental General Education Transfer Curriculum (IGETC)** certified by a community college, you must still complete 12 upper division residence G.E. units at Cal State Hayward.

Regardless of whether you are certified for the CSU G.E. pattern or the IGETC, you must complete the following courses: (1) Area C, an upper division Humanities course of at least 4 units selected from the Area C4 literature/history/philosophy list; (2) Area D, an upper division Social Science course of at least 4 units selected from the Area D4 list; (3) Area E, an upper division capstone course totaling at least 4 units selected from the Area E list. The Cultural Groups/Women General G.E. requirement must be satisfied simultaneously with one of the above Area G.E. requirements if not previously satisfied by a lower division G.E. transfer course.

At Cal State Hayward, G.E. Areas A2 (Written Communication) and B4 (Quantitative Reasoning) must be completed by the time 90 baccalaureate-level units are earned or your registration will be blocked. **You should, therefore, complete these requirements before transferring as a junior.**

What is a major?

A **major** is a specified pattern of courses in a particular discipline or group of disciplines. (A list of Cal State Hayward undergraduate majors appears at the beginning of the programs section of this catalog.) It complements G.E. by allowing you to specialize in one area, to study it in more depth than the one or two courses taken for G.E. in other disciplines. A few majors (such as Music and Spanish) are self-contained in the major department and have no courses which can double-count in G.E. Most majors, however, require some coursework in other departments and these courses, if applicable to G.E., can be double-counted. You can design a Special Major with faculty advice and administrative support (see the [Special Major chapter](#) in the programs section of this catalog).

A major is not the same as a career, though some majors are more closely allied to specific careers than others. There are people in most careers from a wide variety of majors. Cal State Hayward majors are described in alphabetical order in the Academic Programs section of this catalog, and career options are listed for each of them.

A major in a B.A. degree must contain at least 40 quarter units and, in a B.S. degree, at least 54 quarter units. Unless a special exception has been made, no major can require more than 93 units after subtracting the units which double-count in G.E. One exception is the Liberal Studies major, which includes G.E. within it. Other programs exceeding 93 units must add an extra unit to the degree for every extra unit in the major.

B.A. degree majors require a minimum of 20 upper division units, and B.S. degree majors require a minimum of 27 upper division units according to the state Code, but Cal State Hayward majors easily exceed these totals.

You may declare your major either on your application when you apply to Cal State Hayward or by filling out a "Change of Major" form available in the Lobby of Warren Hall or in the Student Services Center at Contra Costa after you enroll.

You may complete more than one major. All majors earned as part of the same degree appear on your diploma, but majors within other degrees do not appear on the diploma, though they can be noted on the permanent record if you request it.

What is an option?

An **option** is a prescribed pathway through a major which allows for emphasis on a particular segment of the discipline (for example, the Journalism Option in the Mass Communication Major and the Dance Option in the Theatre Arts Major). Not all majors have formal options. Some majors with formal options require you to select an option (e.g., Business Administration) whereas others do not (e.g., Political Science). In some majors, different options have different unit values.

An option can appear on your diploma if you request it when filing for graduation. If you wish to complete more than one option and have the additional option(s) recorded, each must differ by at least three courses and nine units from any other option you complete.

What are free electives, and what can I do with them?

Every student has some units not prescribed by G.E., the major, or other graduation requirements. These range from one or two courses in a few very large, occupationally oriented majors to a dozen or more courses in some humanities and social science majors.

Free electives are courses you are free to select to complete your minimum unit requirements for the degree. Some students complete free electives with whatever looks interesting when they have free hours in their schedules, but most students have a purpose in mind. This could be taking more courses in the major to prepare for graduate school or employment, taking a minor or certificate program (defined below) to complement the major (e.g., an English major taking a Marketing minor), or simply following a special interest (e.g., dance or photography). No student is required to do any of these things, but it is important that you understand your options.

What is a minor?

A minor is a coherent program in some field or group of related fields **other than your major**. Minors range in size from 24-48 quarter units, at least 12 of which must be upper division. No student is required to have a minor, so it will not appear on your record or diploma unless you request it. The minimum grade point average for a minor is 2.00, so you must take at least one course on the A-F grading pattern. At least 50% of a minor or 12 units, whichever is less, must be taken at Cal State Hayward if you want the minor recognized on your diploma and/or permanent record.

Courses in a minor may be double-counted in G.E. However, at least 18 quarter units of a minor must not be double-counted in the discipline of the major for Cal State Hayward to recognize the minor.

If you wish to complete a minor, fill out a "Declaration of Minor" form available in the Lobby of Warren Hall or the Student Services Center at Contra Costa.

You cannot get a minor in the same department as your major unless the disciplines are distinct (e.g., French and Spanish, Art History and Studio Art). A minor is recognized only when a baccalaureate degree is awarded. For freestanding programs, see the next section.

What is a certificate program?

A **certificate program** is a coherent set of academic courses, considerably narrower in scope and objectives than a degree or major, for which you can receive a certificate upon its successful completion. Most certificate programs are oriented toward occupations and/or career skills. A certificate program must contain at least 12 units of courses numbered 3000 and above and a minimum of 20 total units (unless the certificate consists solely of 5000- and 6000-level courses in which case only 15 units are required). Each certificate program must contain a required core of at least three courses and 12 units. You can design a special certificate with faculty advice. See "Special Certificates" in the [Special Major chapter](#) (programs section) of this catalog.

Some certificate programs have admission requirements. Refer to the catalog description of the specific certificate program for more information. You must receive a grade of "C" or better in each undergraduate and 5000-level course and a "B" or better in each graduate course (6000-level) applied to the program. Only one course below the 6000-level may be taken "CR/NC" and no graduate course may be taken "CR/NC" in a certificate program unless that is the only grading pattern for the course. You must take at least 75% of the courses and all 5000- and 6000-level courses at Cal State Hayward. (For certificate programs, Cal State Hayward courses may be taken through Extension or as a regularly admitted and enrolled student.) You may not receive a certificate if you have already received a major, option, or minor with the same title.

No student is required to complete a certificate program. Completion of a certificate program is recognized by the awarding of a certificate. There is no notation about the program on either a diploma or permanent record. (The courses will, of course, be on your permanent record.) You may pursue a certificate program before, during, or after your baccalaureate degree. Unlike a minor, a certificate is not part of a degree.

What is the U.S. history and government code requirement?

CSU graduates are expected to have knowledge of: significant events in U.S. history; the role of major ethnic and social groups in these events; the political, economic, social, and geographic context of these events; the U.S. Constitution, U.S. political institutions and processes; the rights and obligations of U.S. citizens; the California Constitution; federal-state relations; and California state and local government, and political processes.

You can demonstrate your competence in these fields by either: (a) passing a set of three examinations (U.S. history, U.S. Constitution, California state and local government) offered each quarter by the Office of Assessment and Testing, or (b) passing an approved set of courses covering all three topics. The list of currently approved courses appears in the quarterly *Class Schedule*.

Be aware that receiving credit for any courses applicable to this requirement through a national test such as Advanced Placement or at an out-of-state institution will not satisfy the California state and local government part of this requirement.

What is the University Writing Skills requirement?

All CSU graduates are required to demonstrate competency in writing skills for graduation. To prepare for the graduation writing proficiency requirement, you must complete two courses in freshman English composition (ENGL 1001-1002 or their equivalents). ENGL 1001 must be completed within the first 90 quarter units, which makes it urgent that you take the EPT before you first enroll so that you can complete any needed remediation in your first year. You should also complete ENGL 1002 before earning 90 quarter units, but if you cannot, do so immediately thereafter.

As soon as you have completed 90 quarter units, you will be required to take the **Writing Skills Test (WST)** offered by Assessment and Testing. For details about the test, contact that office. If you pass the test, you have satisfied the graduation proficiency. Approximately 70% of undergraduates pass the WST on their first try.

If you do not pass on your first attempt, enroll immediately in English 3000 and take the test again as soon as you have passed the course. Non-native speakers of English are advised to take ENGL 3001 before ENGL 3000. (If your Essay score on the WST is 6 or below, you are required to complete ENGL 3000 before reregistering for the WST.) If you are among the relatively small number who fail a second time, do not be discouraged. You must enroll in ENGL 3000 again or another writing skills course (ENGL 3001, 3003, 3020; E S 3000; GEOG 3450; HDEV 4820; MKTG 3495; MLL 3119, 3290, 3309, 3587) before you can sign up for the WST again.

A very small number of Cal State Hayward students do not pass the WST after a third try. If you fail the test on your third attempt, but have passed (with a grade of "CR" or of "C-" or better) two writing skills courses (including ENGL 3000 at least once) and earned an Essay score of at least 6 on your last WST attempt, you may petition the Office of Curriculum and Academic Programs for a waiver of the graduation writing proficiency requirement. If you do not qualify for this waiver, you may appeal to the Basic Skills Requirements Appeals Committee for a waiver. If the Office of Curriculum and Academic Programs or the committee grants a waiver, your permanent record will note that you were allowed to graduate without having satisfied the University Writing Skills requirement. If you do not satisfy the requirement and do not have a waiver approved, you will not be allowed to graduate.

If you have a verified disability which affects your ability to satisfy this requirement, there is a special appeal process facilitated by the Student Disability Resource Center. Contact that office for details.

Are requirements different for students who do their entire degree at Cal State Hayward and those who transfer?

In general, degree requirements are the same, but special provisions safeguard the programs taken by students at California community colleges and other CSU campuses. If you are a transfer student, the following provisions apply.

1. If you complete G.E. courses approved for transfer to the CSU and they are certified by that campus (or another campus accepts them and certifies them), Cal State Hayward will accept them to meet the requirements for which they are certified. (Be aware that certification is not automatic; you must request it.)

According to the Code, CSU cannot accept more than 58 quarter units or 39 semester units. In practice, Cal State Hayward accepts 60 quarter (40 semester) units because our three-course, upper division G.E. program is 12 quarter units. 60 plus 12 totals the 72 units required for G.E.

2. If you complete the Intersegmental General Education Transfer Curriculum (IGETC) and it is certified complete by your community college, you have satisfied the entire 60-unit lower division G.E. program and have only the three courses, 12-unit, upper division G.E. program to complete. (The IGETC is an all-or-nothing proposition; there is no partial certification as in #1 above.)
3. If you complete any part or all of the U.S. history, U.S. Constitution, and California state and local government

requirement at a California community college or other CSU campus and have it certified, Cal State Hayward will accept that certification for completion for part or all of the requirement.

4. If you successfully completed a course at another university or college which is not certified for the CSU G.E. program, but you believe it meets the criteria listed earlier for a specific requirement, you may file a "G.E. Substitution Petition". This form is available in all department offices. If you believe you have a petitionable course, discuss it with your advisor. If (s)he agrees, fill out the form, sign it, have your advisor sign it, and submit the petition to the Office of Curriculum and Academic Programs in Warren Hall (WA 859). After action on your petition, a copy will be mailed to you.

Likewise, if you believe you have a petitionable course for the U.S. history and government requirement, you may request a substitution. In this case, go to either the History Department or the Political Science Department, whichever is appropriate to the course, and review the issue with the department chair. (Both departments are in Meiklejohn Hall.) If the chair agrees, (s)he will send a form to the Registrar's Office informing them of approval of the substitution.

5. Cal State Hayward has articulation agreements for all of our majors with all community colleges in Alameda and Contra Costa counties and with some others from which we receive sizable numbers of students. If you followed one of these major articulation agreements and completed all equivalent lower division work at the community college, your major department will consider your lower division major complete.

If you did not follow an articulation agreement, your major department will evaluate your transfer courses individually for equivalence.

6. The graduation writing proficiency requirement (called the University Writing Skills Requirement at Cal State Hayward) is mandatory on all CSU campuses. Cal State Hayward will accept certification of the graduation writing proficiency requirement from any CSU campus. However, we must have written documentation that the entire requirement was satisfied at the other campus where you were enrolled as a matriculated student. ("Matriculation" means regularly enrolled after being admitted to a university.) You cannot, for example, take a writing proficiency test at another campus to meet the UWSR at Hayward while you are matriculated at Hayward.

Although you can complete a sizable portion of your graduation requirements at other colleges and universities, do not forget the residence requirements previously listed. They must be satisfied while matriculated and enrolled at Cal State Hayward.

Can I get credit for multiple majors or multiple degrees?

A disadvantage of pursuing additional degrees, however, is that you must meet the G.E. requirements in the catalog governing the second degree. If requirements have changed since your first degree was earned, you may have additional G.E. courses to take. At the very least, you will have the three G.E. residence courses to take for the additional degree. Also, if a course previously used for G.E. is in the major of your additional degree, you cannot use it for G.E. in that degree. (The U.S. history/institutions and writing skills requirements need not be satisfied again if completed for a previous CSU degree.)

The disadvantage of completing multiple majors while working on the same degree is that you have to delay graduation until you complete all requirements of all the majors. However, you are checked for completion of the G.E. requirements only once (and the only department excluded from G.E. is your first major, not any additional ones).

Because of the 45-unit residency requirement, you cannot get two degrees at once. (You cannot be in residence in two separate degrees at the same time.) This points up another advantage of multiple majors over multiple degrees. You can pursue two or more majors simultaneously, but you must separate each degree by 45 units. In other words, if you

want two degrees, after you finish one degree, you have to reapply and complete another 45 quarter units (at least 36 of which are upper division, at least 18 units of which are in the additional major, and at least 12 of which are in G.E.). You also have to comply with CSU GPA requirements (at least a 2.00 GPA in all units, all Cal State Hayward units, and all units in the major) for the additional degree.

If you complete two majors at the same time but one falls in a B.A. degree and one falls in a B.S. degree, you must decide which degree to receive because you cannot receive two degrees at once. And your diploma, being awarded for the completion of a degree, will show only the major completed under that degree. Your permanent record and transcripts, however, will include all majors completed if requested.

You cannot get two degrees in the same field. For example, a B.A. with a major in Geology and a B.S. with a major in Geology, or a B.S. with a major in Business Administration (Option in Accounting) and a B.S. with a major in Business Administration (Option in Marketing) are not allowed.

Any options and minors completed within your degree will also be recorded on your diploma and permanent record if you request them.

How do I apply for graduation?

Go to your major department (or the Office of Curriculum and Academic Programs, WA 859, if you are a Special Major) and complete a "Degree Candidacy" form, including department approval. Be sure to list all majors, options, and minors you plan to complete as part of your degree. **You must do this no later than the end of the second week of classes (10 instructional days excluding weekends) of the quarter preceding your final quarter.** (The exact date is published in the quarterly *Class Schedule*.)

Next, take the form to the Cashier's Office in the Lobby of Warren Hall (or the Student Services Center at Contra Costa), and pay the graduation filing fee. The fee covers the cost of the graduation check, the diploma, and participation in the annual commencement ceremony (but not cap and gown rental/purchase, which is handled separately by the Bookstore). The Cashier's Office sends the "Degree Candidacy" form with certification of payment to Graduation Evaluations.

The fee is non-refundable, but if you don't graduate when you intended, it will be transferred to the subsequent quarter automatically. Your graduation quarter can be moved a maximum of three times, after which you have to refile and pay again. You must send such a request, in writing, to the Office of Graduation Evaluations, part of the Records Office. This should be done no later than the end of the Add/Drop period of the quarter originally intended to be your final quarter. Changes in the information on the diploma (change of name, address, deletion of an incomplete minor) must be submitted no later than the end of the Add/Drop period of the intended quarter of graduation.

After you have filed for graduation, your major department completes an official "Major Check" form showing all requirements completed for the major and those remaining to be completed for the major. Your department must submit the form to Graduation Evaluations no later than the fifth week of the quarter preceding your final quarter if you are to graduate on time. **Check with your department by the end of the fifth week of classes of your next to last quarter to be certain this has been done.** If it is not submitted by this time, your graduation will be delayed a quarter, though you may request a letter from Graduation Evaluations certifying requirements have been met.

If you are completing a minor and want it recorded, be certain to request that a "Minor Check" form be submitted by the department offering the minor to Graduation Evaluations no later than the end of the Add/Drop period of your final quarter.

If you are completing a Single or Multiple Subject Matter Preparation Program for entry into a Teaching Credential Program, be certain that the appropriate check sheet is submitted by the department or program committee offering the program to the Credentials Office in the School of Education.

After receiving your Major Check from the department and your "Degree Candidacy" form from the Cashier's Office, Graduation Evaluations will prepare a **Bachelor's Degree Check Sheet** and mail it to you before the end of the Add/Drop Period of your final quarter. This Check Sheet is the official statement of your status. It shows all degree requirements, in progress, and to be completed.

If you file any waiver or substitution petitions for major, G.E., or other graduation requirements, be certain they reach Graduation Evaluations at least four weeks before the end of your final quarter.

Once you have completed all degree requirements and Graduation Evaluations can verify their completion (normally this takes about two months after the end of the quarter), your diploma will be ordered. Your diploma is normally available within four months of this final clearance. It will be mailed unless you make prior arrangements with Graduation Evaluations to pick it up.

A **diploma** is an official document containing the embossed seals of Cal State Hayward and the CSU, your name, the degree conferred and date, major(s) completed in the degree conferred, any options or minors completed and requested, type of honors if any, and the signatures of state and university officials. It is not reproducible or available in multiple copies. You can obtain multiple copies of your record by ordering transcripts which also show degrees, majors, options, minors, and honors, as well as other information. Should you change your name, a new diploma will not be issued.

If you need proof of completion of your degree before receiving your diploma, you may request a verification of graduation or a transcript from the Records Office.

Once your degree is posted to your permanent record, your diploma cannot be altered by adding additional options and/or minors, nor by grade changes, withdrawals, and/or academic renewal. The university protects the integrity of its transcripts and will not rewrite history unless we have made a mistake.

How do I qualify for academic honors at graduation?

Earlier in the catalog, in the Undergraduate Grading and Academic Standards chapter, the annual academic honors recognition and the Dean's and Honors Lists were discussed. Cal State Hayward also recognizes students at graduation for consistently high scholarship through their entire academic careers. To qualify for **Graduation with Honors**, your academic record must meet the following criteria.

1. You will qualify for one of these categories of honors at graduation on the basis of the following **grade point average in all college work** taken for your degree:
 - 3.90 - 4.00 summa cum laude** (highest honors)
 - 3.80 - 3.89 magna cum laude** (high honors)
 - 3.60 - 3.79 cum laude** (honors)
2. To qualify for any category of honors, you must have a **minimum Cal State Hayward grade point average of 3.60**, and
3. You must have completed at least **60 units graded "A-D" at Cal State Hayward** (up to 15 units in Open University/may be substituted).

These standards insure that the top 1% of those graduating in the years this catalog is in effect receive summa cum laude designations, the top 3% receive magna cum laude designations, and the top 8% receive cum laude designations. Graduation with honors is not governed by catalog rights. The GPA standards cited above are in effect for those who graduate during the two years this catalog is in effect. They will be adjusted, if necessary, to maintain the 1%, 3%, and 8% groupings. So check the catalog in effect at the time you graduate to see if you qualify.

How can I earn graduate credit before I get my baccalaureate degree?

Many Cal State Hayward students continue their studies beyond the baccalaureate to earn a master's degree. If you are one of these students, you may find that you have only one or two courses left to complete your baccalaureate and would like to take a course for your graduate program in your final undergraduate quarter. Or perhaps you missed the graduation filing date, don't have anything to take in your last quarter as an undergraduate, and want to get started on your master's degree.

You can take up to 13 units of courses in your **final undergraduate quarter** (no earlier) and apply them to your master's degree if you:

1. Have at least a 2.00 grade point average at Cal State Hayward,
2. Do not need the units or grade points to complete your baccalaureate degree,
3. Do not need the units for residence credit in your master's degree, and
4. Obtain prior permission from the department chair of the graduate program in which you wish to apply the units.

While an undergraduate, obtain a "Petition for Graduate Credit" form in the office of the graduate department. Fill out this form including **all courses** (for both undergraduate and graduate credit) you are taking in your final undergraduate quarter, and sign it. Obtain the signed verification from your undergraduate advisor that you do not need the courses you want to apply to your master's degree for your baccalaureate degree, and obtain the signed approval of the graduate department chair to apply the courses to your master's degree. Then file the form with the Admissions and Records Information Counter in the Lobby of Warren Hall. You must do this no later than the end of the Add/Drop period of your final undergraduate quarter. Once you have graduated, you cannot go back and retroactively transfer a course to your graduate degree.

You cannot be matriculated in a baccalaureate degree and a master's degree at the same time, so the units earned in your last undergraduate quarter which are applied to your master's degree are **not** residence credit in your graduate degree. Most Cal State Hayward master's degrees require 45 units, 32 of which must be in residence. If you take the maximum 13 units for your graduate degree in your last undergraduate quarter, you will have used up your non-residence degree credit and cannot use any transfer, extension or Open University units for your master's degree.

If you start working on a basic Teaching Credential (5000-level courses in Teacher Education) before completing your baccalaureate, you may have the units certified for application to your post-baccalaureate requirements. To qualify, the units must all be in excess of the units needed for your bachelor's degree or any requirement of that degree. Submit a written request to the Graduation Evaluations Office of Enrollment Services. Your request should cite all the courses to be certified for this type of post-baccalaureate credit and should be submitted after completing your baccalaureate degree.

Advertising

- [PROGRAM INFORMATION](#)
- [MINOR IN ADVERTISING](#)

ADVERTISING

Department of Marketing
School of Business and Economics
Office: Music and Business Bldg., Room 2587
Phone: (510) 885-4146

Department of Mass Communication
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall, Room 3011
Phone: (510) 885-3292

Advisers:

Thomas McCoy (Mass Communication, ALSS), Chong Lee (Marketing, SBE)

PROGRAM INFORMATION

The advertising minor allows students to integrate an interdisciplinary set of advertising-related courses with their own major and their general education requirements. This may be an attractive specialization for students in such majors as business, mass communication, art, or psychology.

Careers in advertising include positions with advertising agencies in account supervision, copywriting, production, traffic, marketing and media research, and media buying.

Students with advertising skills are also in demand for the advertising and public relations departments of corporations and not-for-profit organizations, in radio, television, newspapers and magazines, and in specialty firms such as direct mail, outdoor advertising, marketing research agencies, production shops, and syndicated data services.

Students in the Advertising Minor are urged to complete some of the listed elective courses and, in particular, to seek out co-op education or internship placements during their junior and senior years. Practical working experience is available through active participation in The Advertising Agency, which serves The Pioneer, Escape Magazine, and KSUH-Radio within the Department of Mass Communication.

Advertising options, providing a less extensive background in advertising, are available under the Business Administration major (see the [Business Administration chapter](#)) and the Mass Communication major (see the [Mass Communication chapter in the undergraduate section](#)). A student will not be permitted to earn both an option and a minor in advertising.

MINOR IN ADVERTISING

Required Courses (47 units)

(Mass Communication majors may use all 47 units for their major and/or G.E. requirements; Business Administration majors may use 39 of the 47; Sociology majors, 31 of the 47; and English and Psychology majors, 27 of the 47 units.)

ART 1111 The Art Experience or another adviser-approved Art activity course (5)
ENGL 2005 Grammar for Writers (4) or ENGL 3005 Study of Language (4)
MKTG 3401 Introduction to Marketing Management(4)
MKTG 3410 Advertising Management (4)
MKTG 4412 Media Planning (4) or MCOM 3100 Television Production/Direction (4)
MKTG 4445 Seminar in Marketing Research (4), or MCOM 3800 Research Methods in Mass Communication (4) or SOC 4111 Methods of Sociological Research I (4)
MCOM 3340 Graphic Communication (4)
MCOM 4520 Advertising Theory and Practice (4)
MCOM 4530 The Advertising-Public Relations Campaign (4)
PSYC 1000 General Psychology (5)
STAT 1000 Elements of Probability and Statistics (5) or STAT 2010* Elements of Statistics for Business and Economics (5)

Strongly Recommended

PSYC 1100 Critical Thinking in Psychology (4)
PSYC 3510* Attitudes and Opinions (4) or PSYC 4740 Psycholinguistics (4)
Co-op Ed or internship experiences in advertising and/or public relations (4-8)

Additional Electives Relevant to the Minor

ACCT 2210 Accounting for Non-Business Majors (4) or 2251-52 Principles of Accounting I, II (8)
MCOM/ART 2700 Introduction to Photography (5)
ART/MCOM 3600 Intermediate Photography (5)
ART/MCOM 4600 Advanced Photography (5)
MKTG 4414 Promotion Management (4)
MKTG 4415 Corporate Communications (4)
MCOM 3110 Law of Mass Communication (4)
MCOM 4050 Theories of Mass Communication (4)
MCOM 4510 Public Relations Theory and Practice (4)
SOC 1000 Introduction to Sociology (4)

* Has a prerequisite that is not included in the minor.

American Studies

- [PROGRAM DESCRIPTION](#)
- [MINOR IN AMERICAN STUDIES](#)
- [AMERICAN STUDIES OPTION: LIBERAL STUDIES](#)

AMERICAN STUDIES

Department of English
School of Arts, Letters, and Social Sciences
Office: Warren Hall UM79
Phone: (510) 885-3153

Professors:

James L. Nichols, Richard J. Orsi

Associate Professor:

Eileen Barrett (Director)

PROGRAM DESCRIPTION

American Studies, available either as a minor or as an option in the Liberal Studies major, provides the student with an opportunity to study the culture of the United States from the perspectives of literature, history, political science, and other disciplines.

The minor is intended for the student who wishes to complement a Bachelor of Arts major by emphasizing the subject of the United States in upper division major, General Education requirements, and free electives. The Minor in American Studies is especially useful for students who plan careers in teaching, law, library science, journalism, and public service.

An American Studies Option in Liberal Studies is compatible with the liberal arts offerings at the Contra Costa Campus as well as at the main campus.

Advisors for the minor are available in the English, History, and Political Science Departments. A candidate for the minor should plan his/her major and General Education requirements in consultation with one of these advisors.

MINOR IN AMERICAN STUDIES

The Minor in American Studies consists of 32 units (all courses are 4 units). At least 20 units must be outside the student's major department.

I. Core (12 units)

POSC 3703 American Political Thought (4)
ENGL 3600 Masterworks of American Literature (4),
ENGL 4690 Seminar in American Studies (4) (cross-listed as [POSC 4690](#)).

II. One course from each group below (12 units)

- A. ENGL 4634, 4635, 4636, 4637, 4860, 4870
- B. HIST 3411, 3412, 3413, 3414, 3415, 3416, 3417, 3511, 3515, 3520, 3540, 3550, 3555, 3567, 3571, 3580
- C. POSC 3100, 3111, 3112, 3120, 3130, 3310, 3330, 3340, 3441, 3442, 3505, 3703, 4170, 4320

III. Two courses selected from those below (8 units)

ANTH 3240, 3500; ART 3040; Ethnic Studies (selected from any upper division courses involving the United States); GEOG 3360, 3500; MGMT 4500; MCOM 3000, 3110, 3240; MUS 1007; P E 4720; SOC 3415, 3416, 3421, 3520, 3525; THEA 3207.

AMERICAN STUDIES OPTION: LIBERAL STUDIES

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

I. Complete the following (12 units):

POSC 3703 American Political Thought (4)
ENGL 3600 Masterworks of American Literature (4)
ENGL 4690 Seminar in American Studies (4) (cross-listed as [HIST 4690](#))

II. One course from each group below (12 units):

- A. ENGL 4634 Studies in Early American Literature (4), 4635 Studies in Mid-19th Century American Literature (4), 4636 Studies in Late 19th Century American Literature (4), 4637 Studies in 20th-Century American Literature (4), 4860 American Fiction to 1914 (4), 4870 The American Novel, 1914-1945 (4)
- B. HIST 3411 The United States: Colonial Period (4), 3412 The United States: The Age of the American Revolution (4), 3413 The United States: The New Republic (4), 3414 The United States: Civil War and Reconstruction (4), 3415 The United States: Emergence of the Modern Nation (4), 3416 The United States: The New Deal Era (4), 3417 The United States: Recent American History (4), 3511 The Westward Movement (4), 3515 The Mexican-American and the American Southwest (4), 3520 The History of the Southern United States (4), 3540 The Making of the U.S. Constitution (4), 3550 The History of U. S. Foreign Relations (4), 3555 Inter-American Relations (4), 3567 Blacks in the United States (4), 3571 Women in American History (4), 3580 Lincoln and His Times (4)
- C. POSC 3100 American National State and Local Government (4), 3111 The American Presidency (4), 3112 Congress and the California Legislature (4), 3120 State and Local Politics and Government (4), 3130 Urban Politics (4), 3310 Political Parties and Campaigning (4), 3330 Interest Groups, Lobbying, and Political Reform (4), 3340 Women and Politics (4), 3350 American Politics in the Era of Vietnam and Watergate (4), 3441 American Constitutional Law I (4), 3442 American Constitutional Law II (4), 3505 American Foreign Policy (4), 3703 American Political Thought (4)

Anthropology [ANTH]

- [PROGRAM DESCRIPTION](#)
- [CAREER OPPORTUNITIES](#)
- [FEATURES](#)
- [MAJOR REQUIREMENTS ■ B.A.](#)
- [MINOR REQUIREMENTS](#)
- [ANTHROPOLOGY OPTION: LIBERAL STUDIES](#)
- [UNDERGRADUATE COURSES](#)

ANTHROPOLOGY

Department of Anthropology
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 4064
Phone: (510) 885-3168

Professors:

Alan J. Almquist (Chair), Peter J. Claus, H. Glynn Custred, Lindy Li Mark, George R. Miller

PROGRAM DESCRIPTION

Anthropology, the study of humans, provides a cross-cultural and time-depth perspective of humanity as the product of both evolutionary and cultural conditions. Students in this field will learn more about the self in relation to biological and cultural forces and in relation to persons of other ethnic backgrounds. In addition, the Department of Anthropology offers regional courses on the major populations of the world, with particular emphasis placed on North and South America and Asia. Within the Bachelor of Arts program, Cal State Hayward students may focus on special interests in two sub-disciplines:

- Archeology and Biological Anthropology emphasize the study of human biology, variation, and evolution, as well as the reconstruction of past lifestyles and cultural systems.
- Socio-Cultural Anthropology emphasizes social and cultural systems especially on contemporary populations.

CAREER OPPORTUNITIES

Anthropologist ■ Archeologist ■ Artifacts Conservator ■ Curator ■ Ethnologist ■ Foreign Service Officer ■ Immigration Service ■ International Business ■ Multicultural Education Instructor ■ Museum Curator ■ Park Ranger ■ Park Service Official ■ Professor/Teacher ■ Researcher ■ Social Science Teacher ■ Travel Consultant ■ Urban Planner

FEATURES

The Clarence E. Smith Museum of Anthropology houses a sizable collection of archeological artifacts recovered in Alameda and Contra Costa Counties, as well as collections of culture groups throughout the world. The public museum is administered by the department and is also used as an instructional facility. Students have an opportunity for 'hands-on' experience in museum work and gallery exhibits, and through related courses in museology and cross-cultural art. The museum, housed in Meiklejohn Hall, is open to the public. For information, call (510) 885-7414 or (510) 885-3104.

MAJOR REQUIREMENTS - B.A.

Major requirements are subject to change, so consult an advisor in your major department for clarification and interpretation.

The major consists of 60-74 units; the B.A. requires a total of 186 units.

I. Required Courses in Other Departments (0-12 units)

Two or three courses selected from the following list: (Students should make their choice on the basis of discussions with a department faculty advisor.)

BIOL 1001-2, and one of 2040, 3020, 3031, 3060, or 3130 (9 units)

GEOL 2101 and one of 3030, 3110, 3200, or 3730 (6-10 units)

STAT 1000 and one of STAT 3010, CS 1020, or CS 1160 (9 units)

Three quarters of a Modern Language (MLL -01, -02, -03) or competence demonstrated by test in the foreign language (0-12 units)

Ethnic or Area Studies courses (Asian Studies, Latin American Studies) excluding Anthropology Department offerings in these fields (12 units)

II. Required Courses in Anthropology (60-62 units)

A. Lower Division (16 units)

ANTH 1100, 1200, 1300, 1800 (ANTH 3000 may be substituted for ANTH 1300 on approval of an advisor and the department chair.)

B. Upper Division (44-46 units)

1. ANTH 3400, one course in the 3100 series, one course in the 3200 series, and ANTH 3800
2. One course from the following: ANTH 3500, 3510, 3520, 3535, 3545, 3550, 3560, 3580
3. ANTH 4910 Pro-Seminar in Anthropology
4. Five additional courses from one of the following two options:
 - a. Archeology and Biological Anthropology:
ANTH 4240 and 4250 and three of ANTH 3100, 3101, 3110, 3200, 3240, 3250, 3255, 3260, 3280, 3710, 4260
 - b. Socio-Cultural Anthropology:
ANTH 4310, and one additional course from the 3500 series and three of ANTH 3110, 3333-4-5, 3410, 3425, 3700, 3710, 3720, 3730, 3740, 3745, 3750, 3755, 3760, 3780, 3820, 3840, 3890

III. Recommended Courses in Supporting Fields

Students intending to pursue graduate work are urged to elect or add Modern Language courses to satisfy the course requirements above.

When possible, students should satisfy their G.E. requirements from additional courses listed in paragraph I

above.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor requires thirty-six (36) units in Anthropology to be taken in approximately the following order:

- A. Two of the following:
ANTH 1100, 1200, 1300 (3000 may be substituted), 1800
- B. Two of the following: ANTH 3100, 3101, 3200, 3400
- C. One course in the 3500 series
- D. Three additional 3000 and/or 4000 series courses (excluding 3500 series courses) and,
- E. ANTH 4910

ANTHROPOLOGY OPTION: LIBERAL STUDIES

Area I (4 units)

One of the following (4 units):

ANTH 1100 Introduction to Biological Anthropology (4), 1200 Introduction to Archeology (4), 1800 Introduction to Anthropological Linguistics (4)

Area VII, Credential Track or Area VI, Liberal Arts Track (24 units)

Either ANTH 1300 Cultural Anthropology (4), or ANTH 3000 Anthropology in the Modern World (4)

Three of the following courses (12 units):

ANTH 3500 North American Indians (4), 3505 Indians of California (4), 3510 South America (4), 3520 Contact Period California (4), 3535 Southeast Asia (4), 3545 China (4), 3550 Japan (4), 3560 India (4), 3580 Middle East (4)

One additional upper division Anthropology course (4 units):

ANTH 4910 Pro-Seminar in Anthropology (4)

UNDERGRADUATE COURSES

Introductory Courses

1000 Introduction to Anthropology (4)

The holistic study of human beings for non-majors: concepts of human evolution, prehistory, culture; comparison in human variation; structure and function in social organization; synthesis of biological, cultural, and social factors. Four hrs. lect., or 3 hrs. lect., 1 hr. disc. (A)

1001 Mankind and Food (4)

Social, cultural and ecological aspects of food and food resources in comparative perspective. Examination of food symbolism, preferences and taboos. Students will taste (optional) traditional ethnic foods. Hygiene and safety of all consumables will be stressed. (Y)

1002 Prehistory Through Popular Literature (4)

Comparison of popular novels and films concerning prehistory with traditional archaeological approaches to the same data. A survey of Old World prehistory which illustrates the relative value of fictional and scholarly reconstructions of the past. (Y)

1004 Introduction to World Music (4)

(See [MUS 1004](#) for course description)

1100 Introduction to Biological Anthropology (4)

[CAN ANTH 2]

An introduction to human biology from an evolutionary perspective. Topics include evolutionary theory, evolution of the primates based on fossil remains, behavioral studies of living primates, and modern human variability and adaptations. Four hrs. lect.; or three hrs. lect., 1 hr. disc.

1200 Introduction to Archeology (4)

[CAN ANTH 6]

Introduction to the techniques used in recovery and interpretation of archeological materials. Examples of the processes of cultural reconstructions from sites in the old and new world. (F)

1300 Introduction to Cultural Anthropology (4)

[CAN ANTH 4]

Functional approaches to the structure and dynamics of culture and society around the world; comparative study of human behavior and value systems in varied ecological settings. (F)

1800 Introduction to Anthropological Linguistics (4)

An examination of the nature of language and an introduction to the principles of linguistic science. (Y)

3000 Anthropology in the Modern World (4)

The relevance of anthropology to contemporary world problems and issues of mankind. A course for non-majors examining topics such as the social and cultural dimensions of health services, population problems, business, management, and public administration. (A)

Biological Anthropology

3100,-1 Human Evolution I, II (4,4)

Human and non-human primate evolutionary history. Fossil evidence, comparative anatomy and molecular systematics; 3100 Primate evolutionary history based on fossil evidence and comparative anatomy (F); 3101 The fossil evidence for human evolution. Prerequisite: ANTH 2100 or BIOL 3020 or equivalent. One course is not prerequisite to the other. (W)

3110 Primate Social Behavior (4)

A survey course concerned with behavior of non-human primates. Discussions of the relationships between social structure and the environment. The relevance of the study of non-human primate behavior to an understanding of human behavior will be emphasized. (Y)

Archeology

3200 Science in Archeology (4)

Introduction to the application of the physical sciences in the solutions of problems in prehistory. Emphasis on dating

methods and paleoenvironmental reconstructions. Prerequisite: ANTH 2200 or consent of instructor. (Y)

3240 Archeology of North America (4)

Prehistory of the Native Americans, north of Mexico. Ecologic adaptations and processes of culture growth as evidenced by archeological data. Prerequisite: ANTH 2200 or consent of instructor. (Y)

3250 Precolumbian America: Aztec, Inca, Maya (4)

The origins, growth and interaction of the Mesoamerican and South American civilizations, with particular emphasis on the Aztecs, Incas and Mayas. Archeological, historical and ethnographic evidence. (Y)

3255 Egyptian Archeology (4)

An introductory class in Egyptian archeology. Background given in art, history, and religion with an emphasis on specific sites and cultural material from the predynastic to Greco-Roman periods.

3260 Historical Archeology (4)

Archeology of the United States, historical period from 1500 to the present. Survey course emphasizing both native and immigrant peoples' contributions to the historical/archeological record.

3280 Precolumbian Mexico (4)

The archaeological and ethnohistorical study of the origins, growth and interactions of the major Mesoamerican civilizations (Olmec, Maya, Teotihuacan, Mixtec, Zapotec, Toltec, and Aztec).

Sociocultural Anthropology

3333 Cultural Groups: Construction (4)

Interdisciplinary study of development and maintenance of cultural groups, the construction of traditions, socially shared meanings and communicative practices. Emphasis on communication skills, language acquisition, analysis of messages, rhetorical construction and deconstruction of cultural consciousness. Team-taught symposium and discussion.

3334 Cultural Groups: Conflict (4)

Interdisciplinary study of cultural group conflict. Emphasis on group conflict structure and dynamics, contribution of group consciousness to inter-group conflict, rhetorical strategies that invite conflict. U.S. majority and minority group contestations used to analyze conflict. Team-taught symposium and discussion.

3335 Cultural Groups: Cooperation (4)

Interdisciplinary study of relationship between cultural ideologies, institutional structures, and cultural group conflict management. Management through negotiation explored through an indepth study of the cultural values and institutions of Mayan and Tlingit Indians. Team-taught symposium and discussion.

3400 Social Anthropology (4)

Structural-functional approach to the comparative study of human institutions, with emphasis upon kinship and family types throughout the world and their place within the total social structure. Prerequisite: ANTH 2300. (W)

3410 Folklore (4)

Introduction to and survey of oral literature, e.g., folktales, myths, legends, proverbs, riddles, etc., especially among non-literate peoples; methods and theories of folklore analysis and the use of folklore in studies of diffusion, social functions, world view, and religion. (Y)

3425 Anthropology and the Arts (4)

A cross-cultural survey of the arts. Arts of non-western peoples as well as traditional western and contemporary art will be considered. Visual arts are emphasized but integration of these with dramatic, musical, literary and choreographic arts will also be reviewed. (Y)

Regional Anthropology and Ethnography

3500 North American Indians (4)

Native peoples and cultures of present-day United States and Canada. (Y)

3505 Indians of California (4)

Habitat, economy, society, arts, and beliefs of the native populations of California. (Y)

3510 South America (4)

Peoples and cultures of South America from contact times to the present. Ecological adaptations, socioeconomic organization, kinship, religion, and culture change. (Y)

3520 Contact Period of California (4)

Anthropological perspective on the societies and cultures of California during the contact period from the beginning of the mission period to the end of the Gold Rush.

3535 Southeast Asia (4)

Cultural patterns of Southeast Asia; comparative study of dominant populations and ethnic minorities; role in the contemporary world. (Y)

3545 China (4)

Cultural patterns, religion, social structure, ecological setting and regional variations of China, Taiwan and Hong Kong; their traditional, present and future role in the world. (Y)

3550 Japan (4)

Cultural patterns, religion, social structure and ecological settings of Japan. Topics will include family and kinship, gender roles, work groups, socialization, and education. (Y)

3560 India (4)

Development of Indian cultural traditions, with emphasis upon social organization and its relation to the social problems of the peoples inhabiting the Indian subcontinent. (Y)

3580 Middle East (4)

An exploration of the regional diversity of people and social institutions of the Middle East in order to understand the complexities of current social issues.

Applied Anthropology

3700 Anthropology of Education (4)

Introduction to the anthropological study of education including the cross-cultural perspective on education, education systems and schooling, learning as cultural transmission, and the application of anthropology to modern curricular development.

3710 Anthropology and Museums (4)

The anthropologist in the museum profession; the curatorial role; acquisition, identification, recording, repair, preservation and display of anthropological materials. May be repeated once for credit but only 4 units may be applied to anthropology major. Prerequisite: ANTH 2100, 2200 or 2300, or consent of instructor. Minimum of two field trips required. One hr. lect., 6 hrs. act. (Y)

3720 Medical Anthropology (4)

The ecology of health, magical beliefs, and medicine; public health and medical problems as affected by cultural differences; the effects of acculturation upon mental and physical health. Prerequisite: Junior or senior standing or consent of instructor. (Sp)

3725 Evolutionary Medicine (4)

Human beings and their illnesses are the products of a long evolutionary history. Four areas of medicine: infection, trauma, genetic diseases, and diseases of civilization are explored using a "Darwinian" or evolutionary approach.

3730 Anthropology on the Internet (4)

The Internet computer network contains many "virtual communities representative of various international multicultural interest groups. Application of anthropological fieldwork techniques to study issues of transitional identity, communications, expressions, representation, and the concerns of geographically dispersed communities.

3740 Cross-Cultural Studies in Child-Rearing (4)

Cross-cultural study of infancy, childhood and adolescence; the process of enculturation, socialization and methods of child rearing. (Y)

3745 Human Sexuality: Anthropological Perspectives (4)

A cross-cultural and evolutionary study of human sexuality expanding the constricted perspectives of Western cultures, including a review of sexual practices and attitudes, gender roles in sensuality, and sexual orientation in both Western and non-Western societies.

3750 Women in Cross-Cultural Perspective (4)

Similarities and differences in women's experiences in various societies around the world. Questions concerning gender identity, sexuality, marriage, the family, work, power, and intersections of gender with age, class and other inequalities.

3755 Anthropology and Law (4)

A comparative examination of the legal realm of tribal and peasant societies, as seen in cross-cultural perspective. The relationship of law to anthropology. Theories of change of legal systems. Ethnographic case studies.

3760 Anthropology Through Media (4)

Introduction to socio-cultural anthropology from the perspective of visual media; ethnographic and feature films, video, and slides of field work. Assigned readings and lectures parallel media presentations placing them in a broader topical and theoretical context.

3780 Economic Anthropology (4)

Systems of production and exchange in non-western societies and the economic factors in acculturation and culture change. Current methodological and theoretical problems in the analysis of non-industrial economic systems.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Anthropology major; not applicable toward the Anthropology minor, CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

Symbolic Anthropology and Religion**3800 Language and Culture (4)**

Introduction to anthropological and sociolinguistics. Topics include lexical meanings and culture, dialects (both geographic and social), biligualism and multilingualism, discourse and social interaction, and identity. (Y)

3820 Oral Traditions (4)

A cross-cultural survey of folk narrative traditions: myth, legend, folktale, and others. Their analysis in a cultural and performative context.

3840 Magic, Witchcraft and Religion (4)

Cross-cultural comparison of the origins, development and social functions of magical, witchcraft and religious beliefs

and behavior, including relevant aspects of symbolism, ritual, ceremony, spirit possession, exorcism, divination, pilgrimage, renunciation and revivalistic cult movements. (Y)

3890 Shamanism (4)

The art, techniques, and functions of shamanism are reviewed in various societies. Historical, psychological, sociological and philosophical and aesthetic aspects of shamanism are considered. (Y)

Advanced Archeology - Biological Anthropology

4240 Data Analysis in Archeology (4)

General field and laboratory techniques for retrieval and analysis of data recovered from prehistoric and/or historic sites. May be repeated once for credit. Prerequisite: ANTH 2200 or consent of instructor. One hr. lect., 6 hrs. act. (Y)

4250 Field Course in Archeology (5)

Techniques of surface survey and scientific excavation; controlled data retrieval from a variety of archeological field situations. Aspects emphasized will depend on available opportunities. Prerequisite: ANTH 2200. May be repeated once for credit not applied to anthropology major. One hr. lect., 8 hrs. act. (Y)

4260 Human Osteology Laboratory (3)

A laboratory course on the human skeleton. Reconstruction of individual characteristics based on metric, non-metric and statistical analysis. Topics may include analysis of human populations from archeological contexts, paleodemography, and paleopathology. Six hours lab.

Advanced Sociocultural Anthropology

4310 Field Course in Ethnography (5)

Securing, recording, ordering, and analysis of cultural data; problems of participant observation and eliciting information from informants; methods of data collection. Prerequisite: one course in ANTH 3300 or 3400 or 3500 series. One hr. lect., 8 hrs. act. (field work all day Saturday or two afternoons per week). (Tent. Sp)

4900 Independent Study (1-4)

4910 Pro-Seminar in Anthropology (4)

Seminar in history and philosophy of anthropological thought: its place among the sciences and the humanities, schools of thought and the respective contributions of eminent anthropologists. Prerequisites: senior standing, completion of three upper division anthropology courses or consent of instructor. (Y)

Art [ART]

- [PROGRAM DESCRIPTION](#)
- [CAREER POSSIBILITIES](#)
- [FEATURES](#)
- [MAJOR REQUIREMENTS ■ B.A.](#)
- [CERTIFICATE IN ART MUSEUM/GALLERY STUDIES](#)
- [MINOR REQUIREMENTS](#)
- [ART OPTION: LIBERAL STUDIES](#)
- [COURSES](#)

Art

Department of Art
School of Arts, Letters, and Social Sciences
Office: Art and Education 1233
Phone: (510) 885-3111

Professors:

Clayton G. Bailey, Lewis S. Carson, Corban LePell, Mark Levy, Gregory MacGregor, James Perrizo (Chair),
Melvin J. Ramos, Alan M. Shepp

Associate Professors:

Grace Munakata, James F. Petrillo, Amy O. Rodman.

PROGRAM DESCRIPTION

Courses in the Department of Art develop our students' perceptual skills, their access to the imagination, and their ability to think critically and independently. Instruction in use of art materials and specific arts processes enables students to create original artworks reflecting their evolving vision. Our program also fosters a broad cultural awareness of the visual arts in society. Graduating majors should be able to clearly express their ideas about artmaking. In addition, their grasp of historical and contemporary aesthetic issues should inform their own work. We offer excellent facilities, small classes taught by a distinguished faculty, space to work, a guest lecturer series, and field trips to museums, galleries and artists's studios.

Seven options for the B.A. degree are offered: Art History, Art Studio (general), Digital Graphics, Multimedia, Photography (jointly offered by the Departments of Art and Mass Communication), Pictorial Arts (Drawing/Printmaking/Painting), Spatial Arts (Ceramics/Sculpture). The B.A. degree major is accredited by the National Association of Schools of Art and Design. The department is also part of the interdisciplinary graduate M.A. degree program in Multimedia (see the [Multimedia chapter](#) in the graduate section of this catalog).

The Art Department offers minors in Art Studio, Art History, Multimedia, and Digital Graphics. The Departments of Art and Mass Communication offer a joint minor in Photography. In addition, the Art Department offers an option in the Liberal Studies major and a Certificate Program in Art Museum and Gallery Studies.

CAREER POSSIBILITIES

Animator ■ Artist ■ Art Critic ■ Art Educator ■ Art Historian ■ Arts Administrator ■ CD ROM Producer ■ Ceramicist ■ Graphic Artist/Designer ■ Multimedia Developer ■ Museum/Gallery Curator ■ Painter ■ Photographer/Photojournalist ■ Printmaker ■ Sculptor ■ Video Producer

FEATURES

- 100,000 slides in the Department Slide Library
 - Three fully equipped Painting and Drawing studio spaces
 - 3000 square foot machine shop which is fully equipped and professionally staffed
 - Sculpture and Ceramic studios and a large outdoor working space
 - Printmaking facility
 - Excellent Photography facilities
 - State of the Art Electronic Media Facilities
 - 2000 square foot University Art Gallery with a year round program of changing exhibits
 - Guest Artists Lecture Program hosts lectures and workshops by prominent artists, authors and gallery directors
 - Video Art Collection of historical and contemporary art videos
 - Student Art Gallery for solo or group Advanced Student Exhibitions.
-

MAJOR REQUIREMENTS ■ B.A.

Art Studio Options (74-82 units)

I. Required Courses (25 units)

ART 1010 Introduction to World Art History (4)

ART 1020 Creative Process (4)

ART 1113 Drawing I (5)

ART 3035 Modern Art History (4)

Two additional upper division art history courses (8)

(For Electronic Arts students one of these must be ART 3400 History of Art and Technology)

II. Capstone Requirements (6 units)

ART 4710 Senior Thesis (2)

ART 4720 Senior Seminar (2)

ART 4730 Senior Portfolio (2)

III. Option Requirements (43-51 units)

A. Art Studio Option (45 units)

(This option allows students to focus on more than one area.)

ART 1112 Ceramics I (5) or ART 1116 Sculpture I (5)

Complete a minimum of 40 additional units taken from the Art Department listing of studio courses, no more than 20 units of which may be lower division.

Total for Art Major, Art Studio Option: 76 units

B. *Spatial Arts Option (Ceramics/Sculpture) (45 units)*

The Spatial Arts program familiarizes students with a broad range of sculptural processes. The department has one of the best studio facilities in the Bay Area.

1. Required Courses (25 units)

ART 1112 Ceramics (5)

ART 1116 Sculpture I (5)

ART 3311 Sculpture II: Figure/Portrait Modeling (5)

ART 3512 Ceramics II (5)

ART 4302 Spatial Arts: Advanced Projects (5)

2. Elective Courses (20 units)

ART 3312 Metal Fabrication (5), 3313 Bronze Casting (5), 3314 Stone Carving (5), 3513 Ceramics III (5)

Total for Art Major, Spatial Arts Option: 76 units

C. *Pictorial Arts Option (Drawing/Painting/Printmaking) (50 units)*

Beginning painting, printmaking and drawing courses offer traditional and nontraditional approaches to studies from life as well as more subjective approaches to imaginative work. Intermediate and advanced courses guide students toward a personal vision.

1. Required Courses (25 units)

ART 1114 Painting I (5)

ART 1115 Printmaking I (5)

ART 1112 Ceramics I (5) or ART 1116 Sculpture I (5)

ART 3141 Drawing II (5)

ART 3212 Painting II (5)

2. Elective Courses (25 units)

ART 3141 Drawing II (5), 3142 Drawing III: Figure Drawing (5), 3212 Painting II (5), 3213 Painting III (5), 4143 Drawing IV (5), 4857 Advanced Studio Practice: Printmaking (5)

Total for Art Major, Pictorial Arts Option: 81 units

D. *Multimedia Option (Electronic Arts) (46 units)*

Electronic arts is about the use of rapidly evolving new media tools to express the human imagination. Computers are used to create, control and integrate images, text, graphics, video, sound, and interactivity. The classes stress the development of strong aesthetic and humanistic sensibilities combined with sophisticated technical abilities.

The Electronic Arts program has two option areas: Multimedia and Digital Graphics. Both areas share many fundamental and intermediate classes but vary significantly on the advanced level.

1. Required Courses (16 units)

ART 2000 Introduction to Electronic Art (2)

ART 2010 Introduction to Cyberspace (2)

ART 2020 Introduction to Electronic 3D (2)

MCOM/ART 2700 Introduction to Photography (5) or ART/MCOM 2701 Introduction to Photography (5)

ART 3141 Drawing II (5)

2. Elective Courses (20 units)

ART 3800 Multimedia I: Animation (5), 3810 Digital Graphics I: Designing Digitally (5), 3820 Multimedia II: Digital Video and Audio (5), 3830 Digital Graphics II: Digital Imaging (5), 3840 Multimedia III: 3D Animation (5), 3850 Digital Graphics III: 3D Modeling (5)

3. Capstone Requirements (10 units)
Art 4200 Multimedia IV: Advanced projects (5 units)
Art 4220 Multimedia V: Portfolio project (5 units)

Total for Art Major, Multimedia Option: 77 units

E. *Digital Graphics Option (51 units)*

1. Required Courses (21 units)
ART 2000 Introduction to Electronic Art (2)
ART 2010 Introduction to Cyberspace (2)
ART 2020 Introduction to Electronic 3D (2)
MCOM/ART 2700 Introduction to Photography (5 units) or ART/MCOM 2701 Introduction to Photo. (5 units)
ART 3600 Intermediate Photography or ART 3650 Color Photography (5 units)
ART 3141 Drawing II (5 units)
2. Elective Courses (20 units)
ART 3800 Multimedia I: Animation (5), 3810 Digital Graphics I: Designing Digitally (5), 3820 Multimedia II: Digital Video and Audio (5), 3830 Digital Graphics II: Digital Imaging (5), 3840 Multimedia III: 3D Animation (5), 3850 Digital Graphics III: 3D Modeling (5)
3. Capstone Requirements (10 units)
ART 4210 Digital Graphics IV: Computer to Print (5)
ART 4230 Digital Graphics V: Portfolio project (5)

Total for Art Major, Digital Graphic Option: 82 units

F. *Photography Option (43-44 units)*

The Photography Option provides well-grounded studies in the aesthetic and practical areas of contemporary camera-generated imagery. Black and white, as well as color classes are taught using traditional darkroom techniques. The program also requires classes in computer-generated and manipulated images. Students can choose electives to develop skills in specialty areas such as fine art, journalism, or computer/digital photography.

1. Required Courses (38-39 units)
MCOM/ART 2700 Introduction to Photography (5) or ART/MCOM 2701 Introduction to Photography (5)
MCOM/ART 3500 Photojournalism (5) or BIOL 4630 Biological Photography (4)
ART/MCOM 3600 Intermediate Photography II (5)
ART/MCOM 3650 Color Photography (5)
ART/MCOM 3660 Portrait Photography (5) or ART/MCOM 4600 Advanced Photography (5)
MCOM/ART 4620 History of Photography (4)
ART 3810 Digital Graphics I: Designing Digitally (5)
ART 3830 Digital Graphics II: Digital Imaging (5)
2. Elective course (5 units)
Any lower or upper division Art Studio course by advisement (5)

Total for Art Major, Photography Option: 74-75 units

Art History Option (62 units)

The Art History Option emphasizes world art history with Western art history as an important component. As part of our commitment to an expanded view of art history, we include artists and art objects which have been excluded from

traditional art historical curricula. Our goal is to acquaint students with a broad spectrum of examples from world art history and develop their perceptual and analytic abilities within the appropriate historical context.

I. Required courses (21 units)

ART 1010 Introduction to World Art History (4)
ART 1020 Creative Process (4)
ART 1113 Drawing I (5)
ART 3035 Modern Art (4)
ART 4000 The History of Art Theory (4)

II. Modern language requirement (16 units)

Sixteen units of one or more foreign languages selected with an advisor.

III. Elective courses (25 units)

One additional lower division art studio course (5)
Five upper division courses in Art History selected with an advisor (20)

Total for Art Major, Art History Option: 62 units

CERTIFICATE IN ART MUSEUM/GALLERY STUDIES

The Certificate Program in Art Museum and Gallery Studies endeavors to prepare students for graduate school and/or a career in the exhibition field.

ANTH 3710 Museum Curating (4) (must be taken twice) (8)
ART 3701 Gallery and Museum Exhibition and Design (4) (must be taken three times for certificate) (12)
ART 3702 Theories and Practices of Galleries and Museums (4)
ART 4000 Theory of Art History (4)
ART 4701 Internship I (3)
ART 4702 Internship II (3)

MINOR REQUIREMENTS

Art Studio Minor (43 units)

ART 1010 Introduction to World Art History (4)
ART 1111 Art Experience (5)
ART 1113 Drawing I (5)
Two lower division Art Studio courses selected with an advisor (10)
Three upper division Art Studio courses (15)
One upper division Art History course (4)

Art History Minor (37 units)

ART 1010 Introduction to World Art History (4)
ART 1020 Creative Process (4)
ART 1113 Drawing I (5)
ART 3035 Modern Art History (4)
ART 4000 Theory of Art History (4)

Four 3000/4000 level Art History courses (16 total)

Photography Minor (33-35 units)

MCOM/ART 2700 Introduction to Photography (5) or Art/MCOM 2701 Introduction to Photography (5)
ART/MCOM 3600 Intermediate Photography (5)
ART/MCOM 3650 Color Photography (5)
ART/MCOM 4620 History of Photography (4)

Electives (14-16 units)

Selected with an advisor from the following list:

ART 3800 Multimedia I: Animation (5), 3810 Digital Graphics I: Designing Digitally (5), 3830 Digital Graphics II: Digital Imaging (5); ART/MCOM 3660 Portrait Photo (5), 4600 Advanced Photo (5); BIOL 4630 Biological Photography (4); GEOG 3410 Air-Photo Interpretation (4); MCOM 3100 Television Production/Direction (4), 3220 Media Workshop-Print (2), 3340 Graphic Communication, 3350 Magazine Publishing in America (4), 3500 Photo Journalism (5)

At least 18 units must be taken outside the student's major.

Multimedia Minor (Electronic Arts) (45 units)

ART 2000 Introduction to Electronic Art (2 units)
ART 2010 Introduction to Cyberspace (2 units)
ART 2020 Introduction to Electronic 3D (2 units)
MCOM/ART 2700 Introduction to Photography (5) or ART/MCOM 2701 Introduction to Photography (5)
ART 3400 History of Art and Technology (4 units)
ART 3800 Multimedia I: Animation (5 units)
ART 3810 Digital Graphics I: Designing Digitally (5 units)
ART 3820 Multimedia II: Digital Video and Audio (5 units)
ART 3830 Digital Graphics II: Digital Imaging (5 units)
ART 3840 Multimedia III: 3D Animation (5 units)
ART 4220 Multimedia V: Portfolio project (5 units)

ART OPTION: LIBERAL STUDIES

Areas I and/or V (13-14 units)

ART 1010 Introduction to World Art History (4)
ART 1111 The Art Experience (5) or ART 1020 Creative Process (4)
ART 1112 Ceramics I (5) or ART 1114 Painting I (5)

Area VII, Credential Track, or Area VI, Liberal Arts Track (23 units)

ART 1113 Drawing I (5)
ART 1116 Sculpture I (5)
ART 3035 Modern Art (4)
ART 4000 Theory of Art History (4)
One upper division studio course (5)

COURSES

Art Studio

Auditing of Art Studio courses is not permitted.

1020 The Creative Process (4)

Studio practice emphasizing creativity and imagination in the realization of works of visual art. Field trips may be required. Fee. Two hrs. lect., 4 hrs. act. (A)

1111 The Art Experience (5)

Introductory hands-on experience with 2 and 3 dimensional projects. Basic instruction in use of materials, color and expressive composing. A miscellaneous course fee may be charged for materials. Check the quarterly *Class Schedule* for current fee. Field trips may be required. Two hrs. lect., 6 hrs. act. (A)

1112 Ceramics I (5) [CAN ART 6]

An introduction to the basic techniques of construction with clay. Field trips may be required. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act. (A)

1113 Drawing I (5) [CAN ART 8]

Introduces varied approaches to drawing and use of materials. Projects increase perceptual and imaginative abilities. Instruction in using line, shape, and illusion of form to translate/interpret what you see or how you respond. Field trips may be required. Two hrs. lect., 6 hrs. act. (A)

1114 Painting I (5) [CAN ART 10]

Provides introductory experiences in making images and using painting materials. Slides, reproductions and demonstrations accompany lectures. Projects and discussions develop students' understanding of how painting can communicate our experience and imagination. Field trips may be required. Two hrs. lect., 6 hrs. act. (A)

1115 Printmaking I (5)

An introduction to the history of printmaking and the study of the main graphic processes including lithography, intaglio etching and monoprint. Field trips may be required. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act.

1116 Sculpture I (5) [CAN ART 12]

An introduction to the creative process of sculpture and its aesthetic merit. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Field trips may be required. Two hrs. lect., 6 hrs. act. (A)

2000 Introduction to Electronic Art (2)

The basic principles of using electronic media as creative tools. This hands-on class introduces students to electronic studio practices, hardware, software, imaging, video and audio production. Fee.

2010 Introduction to Cyberspace (2)

The structure and use of the telecommunications environment for the arts. Introduction to the Internet, LAN's E-mail, the World Wide Web, searches, servers, MUD's, modems, ISDN, ATM and emerging new systems. Fee. One hr. lect., 2 hrs. act.

2020 Introduction to Electronic 3D (2)

Introduction to electronic 3D modeling and animation. Design concepts and practice. Fee. One hr. lect., 2 hrs. act.

2700 Introduction to Photography (5)

(See [MCOM 2700](#) for course description.)

2701 Introduction to Photography (5)

Fundamental theory and practice of black and white photography. Developing of negatives and darkroom printing. Not open to students with credit for MCOM/ART 2700. Cross-listed with [MCOM 2701](#). A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lecture, 6 hrs. act.

3141 Drawing II (5)

Concepts and techniques of drawing, including studies from life. Emphasis on individual expression in various drawing media. May be repeated once for credit. Prerequisite: ART 1113. Field trips may be required. Two hrs. lect., 6 hrs., act. (Y)

3142 Drawing III: Figure Drawing (5)

Principles of figure drawing. May be repeated once for credit with consent of instructor. Prerequisite: ART 3141. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)

3212 Painting II (5)

Emphasis on individual expression and critical analysis. May be repeated once for credit with consent of instructor. Prerequisite: ART 1114. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)

3213 Painting III (5)

Advanced study in painting. Individual project with selected media. May be repeated for credit with consent of instructor when content varies. Prerequisite: ART 3212. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)

3311 Sculpture II: Figure/Portrait Modeling (5)

Seeing and the translation of seeing into the act of clay modeling. Repeatable twice for credit. Prerequisite: ART 1116. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)

3312 Metal Fabrication (5)

Sculptural constructions of metals with welding techniques and other mechanical methods. Repeatable twice for credit. Prerequisite: ART 1116 & 3311. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)

3313 Bronze Casting (5)

Creating sculpture with the lost wax investment mold casting method. Repeatable twice for credit. Prerequisites: ART 1116, 3311. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Field trips may be required. Two hrs. lect., 6 hrs., act. (Y)

3314 Stone Carving (5)

Stone carving using hand and power tools. Repeatable twice for credit. Prerequisites: ART 1116, 3311. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)

3500 Photojournalism (5)

(See [MCOM 3500](#) for course description.)

3512 Ceramics II (5)

Building and forming processes in ceramics, including glazes and clay bodies. Course repeatable once for credit with instructor's consent. Prerequisite: ART 1112. Field trips may be required. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. studio act. (Y)

3513 Ceramics III (5)

Emphasis on personal direction in ceramics. May be repeated for credit with consent of instructor when content varies. Prerequisite: ART 3512. Field trips may be required. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act. (Y)

3600 Intermediate Photography (5)

Emphasis on the use of photography as a fine art and visual language. Technical areas include: zone system, color toning and hand painting. Cross-listed with [MCOM 3600](#). Prerequisite: MCOM/ART 2700. A miscellaneous course fee will be charged for materials. Please consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. Studio act. (Y)

3650 Color Photography (5)

Comprehensive introduction to color photography. Aesthetics and techniques integrated into a general survey of color slide processing and color printing. Emphasis on type "C" printing from negatives. Frequent viewing of contemporary work. Cross-listed with [MCOM 3650](#). Prerequisite: ART/MCOM 3600. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect, 6 hrs. act.

3660 Portrait Photography (5)

A studio workshop approach to portraiture photography. Various types of lighting such as flood and electronic flash. Natural light, both indoors and out. The history of the portrait and contemporary usage. Cross-listed with [MCOM 3660](#). Prerequisite: MCOM/ART 2700. Field trips may be required. Fee. Two hrs. lect., 6 hrs. act.

3800 Multimedia I: Animation (5)

Creating Animated Art with the aid of a computer, scanner, and digital drawing tablet. Students develop imaginative projects while learning to use Director, Photoshop, and Painter software. Prerequisites: ART 2000, 2010, 2020, 3400 or permission of instructor. Fee. Two hrs. lect., 6 hrs. act.

3810 Digital Graphics I: Designing Digitally (5)

The aesthetics of composition, color, typography, and message created in the digital environment. Prerequisites: ART 2000, 2010, 2020, 3400 or permission of instructor. Fee. Two hrs. lect., 6 hrs. act.

3820 Multimedia II: Digital Video and Audio (5)

The creative use of video and audio for multimedia production. Students produce projects using storyboards, cameras, lighting, audio technology, and video digitizing and editing software. Prerequisites: ART 2000, 2010, 2020, 3400 or permission of instructor. Fee. Two hrs. lect., 6 hours act.

3830 Digital Graphics II: Digital Imaging (5)

The use of computers, scanners and digital drawing tablets with Photoshop, Illustrator and Painter software to produce imaginative pictures and text for screen and print. Prerequisites: ART 2000, 2010, 2020, 3400 or permission of instructor. Fee. Two hrs. lect., 6 hrs. act.

3840 Multimedia III: 3D Animation (5)

Creating 3D objects and life forms with software and animating them for multimedia applications. Prerequisites: ART 2000, 2010, 2020, 3400 or permission of instructor. Two hrs. lect., 6 hrs. act.

3850 Digital Graphics III: 3D Modeling (5)

Designing 3D objects and life forms with software by modeling and applying surfaces for digital graphics applications. Prerequisite: ART 2000, 2010, 2020, 3400 or permission of instructor. Two hrs. lect., 6 hrs. act.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units, which may be applied to the major or the minor in Art. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)

3950 Creating Art (5)

Exercises in the development and realization of drawing, painting, and sculpture for the general student. Field trips, term paper required. Fee. Two hrs. lect., 6 hrs. act.

4143 Drawing IV (5)

Emphasis on individual expression in various drawing media. May be repeated for credit with consent of instructor when content varies. Prerequisite: ART 3141. Field trips may be required. Two hrs. lect., 6 hrs. act.

4200 Multimedia IV: Advanced Projects (5)

Interface design and interactive scripting. Students plan and create large scale interactive narratives using graphics, text, video and audio. Prerequisite: 30 units of Electronic Arts classes or permission of instructor. Fee. Two hrs. lect., 6 hrs. act.

4210 Digital Graphics IV: Computer to Print (5)

Students produce printed works from original digitally created imagery. Prerequisite: 30 units of Electronic Arts classes or permission of instructor. Fee. Two hrs. lect., 6 hrs. studio act.

4220 Multimedia V: Portfolio Project (5)

Students produce large scale interactive works for public presentation. Prerequisite: ART 4200 or permission of instructor. Two hrs. lect., 6 hrs. act.

4230 Digital Graphics V: Portfolio Projects (5)

Students produce a personal body of work for public presentation. Prerequisite: ART 4210 or permission of instructor. Two hrs. lect., 6 hrs. act.

4302 Spatial Arts: Advanced Project (5)

Emphasis on individual expression in spatial arts. Weekly group discussion of students' work. Repeatable for credit with consent of instructor when content varies. Prerequisites: 2 courses from the following: ART 3312, 3313, or 3314 - or ART 3513 taken twice. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)

4600 Advanced Photography (5)

Concentrates on the individual development of each student as photographer, increasing technical skills and personal vision. Assignments directed toward student's major field of study, as well as group projects. Documentary photography and visual communication theory emphasized. Cross-listed with [MCOM 4600](#). Prerequisite: ART/MCOM 3600. A miscellaneous course fee will be charged for materials. Please consult the quarterly *Class Schedule* for the current fee. Two hrs., Lect, 6 hrs. act. (Y)

4710 Senior Thesis (2)

Senior exhibit of art works in appropriate department spaces. Part of a series of capstone senior courses.

4720 Senior Seminar (2)

Development of students' written and verbal communication skills for the purpose of presenting themselves and their work.

4730 Senior Portfolio (2)

Senior portfolio production and presentation for career oriented goals. Faculty participation in reviews of portfolios.

4857 Advanced Studio Practice: Printmaking (5)

Studies in printmaking to clarify the student's direction as an artist. A miscellaneous course fee will be charged for materials. May be repeated for credit with consent of instructor when content varies. Field trips may be required. Prerequisite: upper division standing. Fee. Two hrs. Lect., 6 hrs. studio act.

4900 Independent Study (1-4)**Art History Courses****1010 Introduction to World Art History (4)**

An examination of style in the visual arts and factors which influence the nature of art in selected salient periods of art history. (F, W, Sp)

3000 Sacred World Art (4)

A comparison of the sacred art of the East and West focusing on cross cultural themes. These include the mandala, the "axis mundi" or world axis, sacred geometry, ornamentation and ritual, sacred eros, and the icon.

3010 Latin American Art (4)

Art and architecture of Latin America from the conquest and colonial period to the present, including art of Mexico, Central America and South America. Field trips may be required.

3035 Modern Art (4)

Main topics of European art of the Modern period from the nineteenth century to the middle of the twentieth century including Impressionism, Cubism, and Surrealism.

3040 Art in the United States (4)

The development of art in the United States from the colonial period to the present. Individual visits to museums required. (Y)

3055 Ancient American Art (4)

Art of Mexico, Central America and South America from the ancient periods to the Spanish Conquest. Field trips may be required.

3056 Ethnic Art (4)

A survey of Ethnic Art from tribal origins to present. The history of Native American, Chicano, Latin American, African-American and Asian American Art from their origins to the present. Field trips may be required.

3220 Art in the Ancient World (4)

The evolution of art from the prehistoric Near East through the later Roman Empire. Individual study visits to museums and/or field trips required. Four hrs. lect./disc. (Y)

3225 Renaissances in European Art (4)

European Renaissance art from the fifteenth to the seventeenth century. Course focuses on Italian Renaissance art and Humanism and its formation during the late Medieval period, and its evolution into the Baroque period.

3227 Women in Art (4)

Women artists and images of women's art, including history from ancient periods to the present.

3400 History of Art and Technology (4)

How the interaction of art and technology shaped human culture from cave paintings to computers.

4000 The History of Art Theory (4)

Art theory emphasizing the writings of artists as well as philosophers from Plato and Aristotle to the Post-Modernists, including China and India.

4020 Shamanism and Art: A Cross-Cultural Perspective (4)

The relationship between the practice of shamanism and art from around the world. Artworks from North American Indian, Oceanic, Siberian, Aboriginal, Huichol and African cultures as well as those from Indonesia, China and Tibet. The practice of shamanic techniques by modern artists.

4071 Art Since 1945 (4)

The most recent developments from WW II to the present. Prerequisites: Any 2000 or 3000 level art history course. Four hrs. lect., disc., individual study visits to museums and/or field trips required. (Y)

4620 History of Photography (4)

(See [MCOM 4620](#) for course description.)

4900 Independent Study (1-4)

Art Museum and Gallery Studies

3701 Gallery and Museum Exhibition and Design (4)

A gallery workshop covering the planning, design, publicity and installation of art exhibits. May be repeated twice for credit. Field trips may be required. Two hrs. lect., 4 hrs. act. (F, W, Sp)

3702 Theories and Practices of Galleries and Museums (4)

Emphasis on the history and philosophy of museums and galleries; curatorial responsibilities. Prerequisites: upper division standing and ART 3701. Field trips may be required. (Y)

4701 Internship I (3)

Internship in museums and galleries of the Bay Area. Duties involve professional exhibition and design under the direction of the museum and/or gallery staff. Prerequisites: ART 3701 (thrice for credit), and ART 3702. (Y)

4702 Internship II (3)

Museum and Gallery involvement with office of administration, curation, education, and public relations. Increased responsibility for exhibitions at the University Galleries. May be repeated once for credit. Prerequisites: ART 4701. (Y)

4900 Independent Study (1-4)

Asian Studies

- [PROGRAM DESCRIPTION](#)
- [MINOR IN ASIAN STUDIES](#)

ASIAN STUDIES

Department of Sociology and Social Services
School of Arts, Letters, and Social Sciences
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Professors:

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Associate Professors:

Jagdish Agrawal, Colleen Fong, Chong S. K. Lee

Assistant Professors:

Sophia Lee, Efren Padilla, David Woo

Lecturers:

Agha Saeed, Mala Seshagiri, Yoko Shioiri-Clark

PROGRAM DESCRIPTION

All students are invited to include some courses on Asia in their programs in order to enhance their critical understanding of the West's interrelatedness with the regions where half of humanity lives. The Asian countries are steeped in traditions that have elaborated different possibilities than those with which many Americans are acquainted. The Asian peoples have liberated themselves from Western rule and they are trying to establish equal relations with the West, while they work to come to terms with science, technology, and democracy in their own countries.

The Asian Studies faculty, in cooperation with Asian American student groups and concerned community members, attempt to encourage mutual understanding of East and West through regular courses in various departments (see following list); through new courses listed in the *Class Schedule* and Independent Study; through occasional workshops, lectures, and cultural events; and through outreach work in the Bay Area schools. The program is supplemented with topics such as Yoga, Judo, and Karate (Kinesiology and Physical Education). Notice also that certain general courses in the curriculum include a major Asian component: for example, Mankind and Food, Folklore (Anthropology), International Finance and Trade (Economics), Nutrition and Diet Therapy (Health Sciences), Multinational Business (Management Sciences), International Marketing (Marketing), International Relations and Contemporary World Problems (Political Science), and World Development (Sociology), among others. The Asian Studies Program faculty publicizes these and related matters. Study abroad courses, as well as short educational tours, have been offered in several Asian countries.

MINOR IN ASIAN STUDIES

Students with broader interests in Asia can build into their curriculum a Minor in Asian Studies consisting of eight courses (32 units). The minor is designed to complement the student's major by grouping courses taken as part of the major, courses taken to fulfill General Education requirements, and free electives into a package emphasizing Asia. A minimum of 18 units must be taken outside the student's major.

Although the Minor in Asian Studies does not include a foreign language requirement, one year of an Asian language may be counted toward fulfillment of the minor requirements. Students wishing to go on to graduate school in Asian Studies are strongly encouraged to begin their language study as part of their undergraduate training. Mandarin Chinese, Japanese, Vietnamese and Filipino are offered on campus.

It is also possible to include courses taken at the universities that are associated with the International Programs of the California State University system; these opportunities presently exist in Japan and Taiwan and others are being considered.

Thirty two units (eight courses) may be chosen from the following list. No more than 12 units (three courses) in one department. At least 12 upper division units are required.

ANTH 3535 Southeast Asia (4), 3545 China (4), 3550 Japan (4), 3560 India (4); MLL 1601, -2, -3 Elementary Mandarin Chinese I, II, III (4 each), 1651,-2,-3 Elementary Filipino I, II, III (4 each), 1751,-2,-3 Elementary Vietnamese I, II, III (4 each), 1801, -2, -3 Elementary Japanese I, II, III (4 each); GEOG 3540 Geography of East Asia (4); 3550 Geography of Southeast Asia (4); HIST 3301 Modern Asia (4), 3311 Traditional China (4), 3312 Modern China (4), 3313 People's Republic of China (4), 3322 Early Japan (4), 3323 Modern Japan (4), 3325 Postwar Japan (4); PHIL 1401 Religions of the World (4); POSC 3204 Political Systems in Asia (4)

Although not part of the courses that count in the minor, Asian courses in Kinesiology and Physical Education are a much appreciated part of the Asian Studies program. Yoga, Judo, and Karate combine the wisdom of the body with self-understanding, and enhance learning skills, general alertness, and fitness.

Biological Sciences [BIOL]

- [PROGRAM DESCRIPTION](#)
- [CAREER POSSIBILITIES](#)
- [FEATURES](#)
- [PREPARATION](#)
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BIOLOGICAL SCIENCES

Department of Biological Sciences

School of Science

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Professors:

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Associate Professors:

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PROGRAM DESCRIPTION

Biology is concerned with living matter in all its forms, responses, and interactions. It deals with the study of anything which has been or is alive: microbes, all plants, and all animals, including humans. The Science of Biology includes a large number of sub-disciplines such as anatomy, reproduction, development, genetics, ecology, evolution, physiology, systematics, and behavior. A biologist must draw upon a wide variety of academic disciplines to make observations and draw conclusions. A well-trained biologist will have a background in chemistry, mathematics, computer science, statistics, and physics to meet the demands of the present professions.

The Department of Biological Sciences offers a diversified curriculum in the life sciences. Courses are designed for biology majors with specific degree objectives, for students seeking applied technical training, and for non-major students with general interest in biological subjects. Undergraduate programs will prepare students for both graduate work and for a diversity of careers. Biology majors may enter specialized or general careers in life science and find themselves working in laboratories, offices, the field, farms, administrative posts, academic institutions, industry, government agencies, private foundations, botanic gardens and zoos, wildlife preserves, and elsewhere.

CAREER POSSIBILITIES

Administrator ■ Biotechnology ■ Botany ■ Cell Biology ■ Consultant ■ Ecology ■ Entomology ■ Environmental Specialist ■ Genetic Engineering ■ Physiology ■ Genetics ■ Health Sciences ■ Lab Assistant ■ Lab Technician ■ Marine Biology ■ Medical Technology ■ Pharmacology ■ Population Biology ■ Researcher ■ Teacher ■ Scientist ■ Space Biology ■ Technical Sales ■ Technical Writer ■ Toxicology ■ Zoology ■ Zookeeper

FEATURES

Classes are offered on the Hayward campus in well-equipped facilities, at the Moss Landing Marine Laboratories located on Monterey Bay, and at a number of field locations throughout the San Francisco Bay Area, including the South San Francisco Bay National Wildlife Refuge Field Station, the Cleary Reserve, and the Garin Reserve adjacent to campus.

A program in Biomedical Laboratory Sciences is offered to qualify students for California hospital traineeships which lead to state licensure as medical technologists.

PREPARATION

A student who has successfully completed an advanced placement course in biology in high school and has earned a score of "3," "4" or "5" on the Advanced Placement Examination will be granted 9 units of credit in place of BIOL 1001-2 and either BIOL 2030 or 2040 (by advisement) or, if student is a Biology Major, 10 units in place of BIOL 1301 & 1302. No Advanced Placement credit is given for BIOL 1303.

MAJOR REQUIREMENTS - B.S.

The B.S. major should be considered by students anticipating careers in biology or the health sciences that require graduate school, professional school, or specialized training programs. All students wishing to enter medicine, dentistry, veterinary medicine, or biomedical laboratory positions should obtain a Bachelor of Science degree. Students wishing to teach in secondary schools should also consider the B.S. degree. Requirements are subject to change, so consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 100 units; the B.S. degree requires a total of 186 units.

I. Physical Sciences and Mathematics (43-50 units)

CHEM 1101-2-3 General Chemistry (15)

CHEM 2301-2 or 3301-2-3 Organic Chemistry (8-15)

MATH 1130 College Algebra or MATH 1300 Trigonometry and Analytic Geometry or MATH 1304 Calculus I (4) (Students should take the most advanced course for which they are qualified. Biologists continuing on to graduate work should complete MATH 1305 as a minimum.)

STAT 3031 Statistical Methods in Biology (4)

PHYS 2701-2-3 Introductory Physics (12)

II. Biological Science Core Program (35 units)

BIOL 1301-2-3 Foundations of Biological Science (15)

BIOL 3110 Principles of Ecology (4)

BIOL 3120 Principles of Genetics (4)
BIOL 3130 Principles of Evolutionary Biology (4)
BIOL 3140 Principles of Developmental Biology (4)
BIOL 3150 Principles of Physiology (4)

III. **Advanced Biological Science Electives (15--22 units)**

Upper division electives in biological science. (May include up to 4 units of approved courses in sciences other than Biology and pertinent to the student's area of special interest. The approved courses are CHEM 3400 or CHEM 4411-12; GEOL 3400; MATH 1304, 1305, and 2304 or CS 1020; other courses subject to approval by petitioning the department prior to registration)

Note: Because the upper division requirements of the Biology major are not large, students need to track carefully their progress toward the 60 upper division units required for graduation.

B.S. Degree with Biomedical Laboratory Sciences Option (118-125 units)

The Biomedical Laboratory Sciences Option leading to a B.S. degree in Biological Science prepares students for further training after graduation in State approved hospital laboratories as required for State licensure of Medical Technologists. Traineeships are available to qualified graduates in laboratories throughout California. Trainee positions are highly competitive. This option is recommended for students contemplating work in public health, industrial microbiology, quality control, research, and graduate work in related fields. The major with the Biomedical Laboratory Sciences Option consists of 118-125 units; the B.S. degree requires a total of 186 units.

I. **Physical Sciences and Mathematics (43-50 units)**

CHEM 1101-2-3 General Chemistry (15)
CHEM 2301-2, or 3301-2-3 Organic Chemistry(8-15)
MATH 1130 College Algebra or MATH 1300 Trigonometry and Analytic Geometry or MATH 1304 Calculus I (4) (Students should take the most advanced course for which they are qualified.)
STAT 3031 Statistical Methods in Biology (4)
PHYS 2701-2-3 Introductory Physics (12)

II. **Biological Science Core Program (23 units)**

BIOL 1301-2-3 Foundations of Biological Science (15)
BIOL 3120 Principles of Genetics (4)
BIOL 3150 Principles of Physiology (4)

III. **Option Requirements (52 units)**

CHEM 2200 Quantitative Analysis (5)
CHEM 3400, 3401, 3405 Biochemistry (11)
BIOL 3405 Microbiology (6)
BIOL 3420 Medical Mycology (4)
BIOL 3430 Hematology (4)
BIOL 3440 Medical Parasitology (4)
BIOL 4411 Medical Microbiology I (5)
BIOL 4412 Medical Microbiology II (5)
BIOL 4430 Immunology (3)
BIOL 4431 Immunology Lab (2)
BIOL 4440 Immunohematology (3)

MAJOR REQUIREMENTS - B.A.

The Bachelor of Arts major program should be considered by students wishing broad experience in biology as well as specialized course work in one of the three options: General Biology, Ecology/Natural History, or Human Biology. Students planning careers in education, biological interpretative work, natural history programs, health-related vocations, or seeking generalized biological training may find this program most adaptable to their needs. However, the B.A. degree major in many cases will not provide the required courses for admission to graduate or professional schools. The major consists of a minimum of 98 units; the B.A. degree requires a total of 186 units.

I. Physical Sciences and Mathematics (21--39 units)

CHEM 1601-2-3* Basic Chemistry for the Health Sciences or CHEM 1101-2-3 General Chemistry and CHEM 2301-2 Survey of Organic Chemistry (12-23)

MATH 1130 College Algebra or MATH 1300 Trigonometry and Analytic Geometry or MATH 1304 Calculus I or STAT 3031** Statistical Methods in Biology (4)

PHYS 1700* Elements of Physics and PHYS 1780* Elementary Physics Laboratory or PHYS 2701-2-3 Introductory Physics (5-12)

II. Biological Sciences (27 units)

BIOL 1301-2-3 Foundations of Biological Science (15)

BIOL 3120 Principles of Genetics or BIOL 3020 Genetics, Evolution & Humanity (4)

Two courses (8 units) selected from:

BIOL 3110*** Principles of Ecology

BIOL 3130*** Principles of Evolutionary Biology (or ANTH 3100 acceptable for Human Biology Option)

BIOL 3140*** Principles of Developmental Biology

BIOL 3150*** Principles of Physiology

III. Option Requirement (32-50 units)

Complete the requirements for one of the following options. Elective units in each option are expected to be appropriate to that option. These may include recommended courses in such areas as: biological anthropology, biological sciences, chemistry, environmental studies, geography, geology, health sciences, human development, kinesiology, marine sciences, mathematics, physical education, physics, psychology, and statistics.

Option I. General Biology (32-50 units)

A. Required units in Biological Sciences

Two courses required from each of the following categories, one in each category must be field or laboratory oriented. (24-31 units)

1. Ecology/Natural History (8-10)

BIOL 3015, 3031, 3110,*** 3115, 3116, 4010, 4130, 4580, or 4581

2. Molecular, Cellular, Physiological Biology (8-11)

BIOL 2010, 2020, 3005, 3140,*** 3150,*** 3405, 3430, 4155, 4160, 4170, 4180, 4430, 4431, 4440, 4470, 4480, 4505

3. Organismal Biology (8-10)

BIOL 3060, 3130,*** 3201, 3203, 3420, 3440, 3505, 4200, 4300, 4518, 4565, 4570, 4580 or 4581, 4590

B. Elective units in Biological Sciences [may include up to 8 units taken from CHEM 3400; GEOL 3400; STAT 3031; PSYC 4320] (1-26)

Option II. Ecology/Natural History (35-50 units)

A. Required units in Biological Sciences (24-35)

1. Ecology/Natural History: One course (4-6 units) from each of the following areas:
 - a. *General ecology*: BIOL 3110*** (if taken in CORE must complete one additional course in b or c)
 - b. *Aquatic biology*: BIOL 3015, 3115, 3116; M SC 4103, 4161
 - c. *Terrestrial biology*: BIOL 3031, 4130, 4580, or 4581
2. Organismal biology: One course(4-6 units) from each of the following areas:
 - a. Botany: BIOL 3201, 3203, 3210, 4200; M SC 4131
 - b. Invertebrates: BIOL 3521 or 3522, 4300; M SC 4124, 4125
 - c. Vertebrates: BIOL 4518, 4570, 4580, or 4581, 4590; M SC 4112, 4113

B. Elective units (0-26 units) in Biological Sciences (may include up to 8 units in related departments with advisor's approval prior to registration)

Option III. Human Biology (32-50 units)

- A. Required units in Biological Sciences and Chemistry (19-23)
BIOL 2010, 2020, 3031 or 3110,*** 3005; CHEM 3400 (if CHEM 1603 not taken in CORE)
- B. Elective units(9-31) in Biological Sciences chosen from the following courses (may include up to 8 units in related departments with advisor's approval prior to registration):
BIOL 3060, 3070, 3140,*** 3405, 3410, 3430, 3440, 4120, 4155, 4160, 4170, 4505 (10-32)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor program is designed to provide students in other majors the opportunity to broaden their experience and understanding of the biological sciences. Selection and completion of any one of the three options may expand the student's educational and employment opportunities.

Option I. General Biology (34-44 units)

(Especially for majors in the School of Science)

- CHEM 1101, -2,-3 or CHEM 1601, -2,-3 (12-15)
- BIOL 1301 and/or 1302 (5-10)
- BIOL 1303 (5)
- BIOL 3120 (4)
- Upper division biology elective courses: two courses (one of which must have laboratory experience) (8-10)

Option II. Ecology/Natural History (33-36 units)

(Of particular interest for majors in Liberal Studies, Recreation, Geography, Kinesiology, Art, and Pre-credential students)

CHEM 1100 or 1601 (4-5)

BIOL 1001, 1002, 2030, and 2040 (13)

BIOL 3020 or 3120 (4)

BIOL 3110 or 3031 (4)

Upper division biology elective courses: two courses (one of which must have field experience) (8-10)

Option III. Human Biology (35-37 units)

(Of particular interest for majors in Anthropology, Human Development, Sociology, Nursing, Psychology, Health Sciences, and Kinesiology)

CHEM 1100 or 1601 (4-5)

BIOL 1001 (4)

BIOL 1002 (1)

BIOL 2010 (5)

BIOL 2020 (5)

BIOL 3020 (4)

Upper division electives appropriate to Human Biology -- three courses selected from:

BIOL 3060 Human Sexuality (4), 3070 Optimal Nutrition (4), 3005 Introduction to Microbiology (5) or, 4010 Microbes/Humanity (4), 4160 Medical Physiology (4)

LIFE SCIENCES OPTION: LIBERAL STUDIES

Area I and III.A (17-19 units)

BIOL 1001 Introduction to Biology (4)

BIOL 2030 Survey of the Plant Kingdom (4)

Either CHEM 1100 Introduction to College Chemistry (5), or CHEM 1601 Basic Chemistry for Health Sciences (4)

Either GEOL 1001 Introduction to the Earth Sciences (4), or GEOL 1201 Introduction to Oceanography (4)

One of the following (1-2 units):

BIOL 1002 Introduction to Biology Lab (1)

GEOL 1002 Environmental Geology Lab (2)

GEOL 1202 Oceanography Lab (2)

Area VII, Credential Track or Area VI, Liberal Arts Track (23-27 units)

BIOL 2040 Survey of the Animal Kingdom (4)

BIOL 3020 Genetics, Evolution, and Humanity (4)

Either BIOL 3015 Natural History of Marine Organisms (4), or BIOL 3031 Nature Study (4)

Elective courses from the following (11-15 units):

BIOL 2010 Human Physiology and Anatomy I (5), 2020 Human Physiology and Anatomy II (5), 3005 Introduction to Microbiology (5), 3015 Natural History of Marine Organisms (4), 3031 Nature Study (4), 3035 Endangered and Threatened Species in Bay Area and California Habitats (4), 3060 Human Sexuality (4), 3070 Optimal Nutrition (4), 3210 Woody Plants of California (4), 4010 Microbes and Humanity (4), 4580, 4581 Natural History of the Vertebrates, I, II (5, 5), 4630 Biological Photography (4); GEOL 2300 Natural Disasters (4), 3000 Conservation of Natural Resources (5), 3030 Earth and Life Through Time (5),

Certificate in Pre-Physical Therapy

A Certificate in Pre-physical Therapy can be earned in conjunction with either degree in biological sciences. The requirements can be found in the section on [Preprofessional Programs](#).

UNDERGRADUATE COURSES

1001 Introduction to Biology (4)

Plants, animals and microorganisms and the modern biological concepts that apply to their structure and function on cellular, organismal, population, and ecosystem levels. Special emphasis on humans and their relationships with other living things. Not for biology major credit. Recommended: concurrent enrollment in lab, BIOL 1002.

1002 Introduction to Biology Lab (1)

Laboratory exposure to biological phenomena including microscope activities of cells, osmosis, diffusion, human nutrition, human genetics, plant growth, classification of plants and animals, fertilization and development, natural selection simulation, field ecology and ecosystems. Prerequisite: prior or concurrent enrollment in BIOL 1001 or equivalent. Not for biology major credit. Two hrs. lab.

1301-2-3**** Foundations of Biological Sciences (5, 5, 5)

[1301: CAN BIOL 4; 1302: CAN BIOL 6; 1303: CAN BIOL 2]

BIOL 1301 An introduction to animal biology with emphasis on relationship of structure and function in animals, principles of classification and ecology, and a brief survey of the animal kingdom, including evolutionary relationships. Four hrs. lect., 3 hrs. lab or field. (F, Sp)

BIOL 1302 An introduction to plant biology with emphasis on relationship of structure and function in plants, principles of classification and ecology, and a brief survey of the plant kingdom, including evolutionary relationships. Four hrs. lect., 3 hrs. lab or field. (F, W)

BIOL 1303 Introduction to molecular and cellular biology with emphasis on the integration of structure and function in the living cell as a biological system; cellular aspects of inheritance. Prerequisite: CHEM 1101 or 1601, or equivalent or consent of instructor. Four hrs. lect., 3 hrs. lab.

2010 Human Physiology and Anatomy I (5)

An integrated approach to essential concepts of human physiology and anatomy. Analysis of skeletal, muscular, sensorimotor, cardiovascular and respiratory systems. Recommended preparation: high school biology and chemistry, or BIOL 1001, 1002 and CHEM 1100 or 1601. Not open for credit to students who have taken BIOL 2061 and/or 2062. Not for Biology B.S. degree credit. There is no Academic Renewal for this class. Four hrs. lect., 3 hrs. lab.

2015 Cooperative Learning for Physiology and Anatomy (1)

Participation in cooperative learning sessions in small groups. Students receive written materials which are mastered and taught to other members of their group. Concurrent enrollment in BIOL 2010 required.

2020 Human Physiology and Anatomy II (5)

An integrated analysis of physiology and anatomy of the integumentary, autonomic and central nervous, endocrine, urinary and reproductive systems and of the blood and special senses. Coverage of histology, metabolism, and thermoregulation. Prerequisites: BIOL 2010 or equivalent and CHEM 1100 (may be taken concurrently). There is no Academic Renewal for this class. Not for Biology B.S. degree credit. Four hrs. lect., 3 hrs. lab.

2030 Survey of the Plant Kingdom (4)

General biology of the major plant groups, stressing the fundamentals of classification, morphology, physiology and reproduction. Prerequisite: Biol. 1001, 1002 or equivalent. Not for biology major credit and not open to students who have completed BIOL 1302. Three hrs. lect., 3 hrs. lab.

2040 Survey of the Animal Kingdom (4)

Introduction to the anatomy, physiology, classification and evolution of the major animal phyla. Prerequisite: Biol. 1001, 1002 or equivalent. Not for biology major credit and not open to students who have completed BIOL 1301. Three hrs. lect., 3 hrs. lab.

3005 Introduction to Microbiology (5)

The nature and activities of beneficial and harmful microorganisms; their role in health, disease, and their natural environment. Laboratory practice in handling microorganisms, including identification and culture techniques. Designed for health sciences and nursing. Prerequisites: BIOL 1001, 1002 or permission of instructor, CHEM 1601 or equivalent. Not open for credit to students who have taken BIOL 4010 or BIOL 3405. Not for Biology B.S. Degree credit. Three hrs. lect., 3 hrs. lab, 1 hr. disc. (F, W)

3015 Natural History of Marine Organisms (4)

Natural history of marine plants and animals with emphasis on explorations of local marine habitats. Prerequisite: BIOL 1001, 1002 or equivalent. Not for Biology B.S. degree credit. Not open for credit to students who have taken BIOL 3115. Cross-listed with [M SC 3015](#). Two hrs. lect., 6 hrs. lab and/or field. (Y)

3020 Genetics, Evolution, and Humanity (4)

Principles of genetics, their application to human problems, and to theories of evolutionary change, including the evolution of humans. Not for Biology B.S. degree credit. Prerequisite: BIOL 1001, 1002 or equivalent. (Y)

3031 Nature Study (4)

Natural history in the field and laboratory with emphasis on biotic communities and their component plants and animals. Prerequisite: BIOL 1001, 1002 or equivalent. Not for Biology B.S. degree major credit. Two hrs. lect., 6 hrs. lab/field.

3035 Endangered and Threatened Species in Bay Area and California Habitats (4)

Endangered, threatened and other protected animal and plant species in the greater Bay Area and other selected sites in California. Emphasis on the factors which have reduced or destroyed their habitats. A Saturday field trip will explore several Bay Area sites where endangered species studies are presently in progress. Three hrs. lect., 3 hrs. lab/field. Prerequisite: BIOL 1001 or equivalent. Not for Biology B.S. degree credit.

3060 Human Sexuality (4)

Anatomy, physiology, endocrinology of adult sexual organs; human development through birth; abnormalities of sexual development and adult function; sexually transmitted and congenital diseases; new reproductive techniques. Not for Biology B.S. degree credit. Prerequisite: BIOL 1001, 1002 or equivalent, or consent of instructor. (Y)

3070 Optimal Nutrition (4)

Definition of the food groups, their composition and their role in optimal human physiology. Investigation of the sources of essential nutrients, consideration of the health hazards of nutritional unbalance, and discussions of the claims for food supplements and vitamins. Not for Biology B.S. degree major credit. (Y)

3110 Principles of Ecology (4)

Relationships within and among populations in various environments; introduction to population dynamics and species interactions in natural communities and ecosystems; applications to human welfare. Prerequisites: BIOL 1301-2 and MATH 1130 or equivalents; Biol. 1303 and statistics recommended. Three hrs lect., 3 hrs. lab, and/or field trips. (Y)

3115 Marine Biology (4)

The general biology of marine organisms with emphasis on the ecology of local marine communities. Students with concurrent or previous enrollment in M SC 4103 not admitted. Not open for credit to students who have taken BIOL 3015. Cross-listed with [M SC 3115](#). Prerequisites: BIOL 1301-2 or equivalent. Two hrs. lect., 6 hrs. lab, field trips.

(Y)

3116 Fresh-water Biology (5)

The ecology of lakes, ponds and streams, with emphasis on water chemistry, structure and distribution of inland water communities, and biological productivity. Frequent trips to local aquatic habitats. Prerequisites: BIOL 1301-2-3 or equivalent; courses in general chemistry and general ecology recommended. Three hrs. lect., 6 hrs. lab/field.

3120 Principles of Genetics (4)

Physical basis of inheritance, probability, gene structure and function, genes in development, genes in populations. Prerequisites: BIOL 1301-2-3 or equivalents. (F, W, Sp)

3130 Principles of Evolutionary Biology (4)

A survey of the basic processes involved in the evolution of natural populations. The systematic and phylogenetic implications of evolutionary change will also be considered. Prerequisite: BIOL 1301-2-3 and 3120 or equivalent. (Y)

3140 Principles of Developmental Biology (4)

Basic processes of fertilization, growth, determination, differentiation, induction, and morphogenesis as exemplified in microorganisms, plants, and animals at the molecular, cellular, tissue, and organismic levels. Prerequisites: BIOL 1301-2-3, CHEM 1101-2-3 or 1601-2-3 or equivalents; BIOL 3120. Three hrs. lect., 3 hrs. lab. (Y)

3150 Principles of Physiology (4)

Introduction to current views on the various physiological functions such as transport, respiration, nutrition, excretion, sensory reception, and nervous and hormonal systems. Concepts of these functions derived from plant and animal forms. Prerequisites: BIOL 1301-2-3, CHEM 2301-2 or 3301-2-3 or concurrent enrollment.. Three hrs. lect., 3 hrs. lab. (Y)

3201 Biology of Nonvascular Plants (5)

The general biology of algae, fungi, and bryophytes, with emphasis on structure, reproduction, and ecology. Prerequisites: BIOL 1301-2-3 or equivalent. Three hrs. lect., 6 hrs lab./field.

3203 Biology of Vascular Plants (5)

The general biology of fern allies, ferns, and seed plants, with emphasis on structure, development and reproduction. Prerequisites: BIOL 1301-2-3 or equivalent. Three hrs. lect., 6 hrs. lab./field.

3210 Woody Plants of California (4)

Identification, distribution, and ecological characteristics of native and introduced trees and shrubs of California. Prerequisites: BIOL 1302 or BIOL 2030 and 3031 or equivalent. Two hrs. lect., 6 hrs. lab. or field trips and/or weekend field trips.

3405 Microbiology (6)

The general biology of major groups of microorganisms, including their morphology, metabolism, reproduction, genetics and ecology. Prerequisites: BIOL 1301-2-3 or equivalent, organic chemistry. Four hrs. lect., 6 hrs. lab. (F, Sp)

3410 Epidemiology (3)

Study of the distribution and determinants of disease and health-related aspects in populations. Application of results to the prevention and control of health problems. Prerequisite: BIOL 1000 and 3005 or permission of instructor. (Y)

3420 Medical Mycology (4)

Study of fungi which may cause disease in man and lower animals. Prerequisite: BIOL 3405. Two hrs. lect., 6 hrs. lab.

3430 Hematology (4)

Morphology, function and composition of human blood fluids and cells, both normal and diseased. Prerequisite: BIOL 1301 and 1303 and organic chemistry. Two hrs. lect., 6 hrs. lab. (Sp)

3440 Medical Parasitology (4)

Study of protozoa and metazoa important in the pathogenesis of human diseases, including pathology, immunology and epidemiology, as well as life cycles and laboratory identification of the parasites. Prerequisite: BIOL 1301 and 1303 or equivalent. Two hrs. lect., 6 hrs. lab.

3505 Comparative Vertebrate Histology (5)

Study of the microscopic structure of the representative vertebrate organisms with emphasis on the distribution and histogenesis of tissues within the major taxonomic groups. Prerequisites: BIOL 1301 and 1303 or equivalent. Three hrs. lect., 6 hrs. lab.

3521-2 Biology of Invertebrate Animals I, II (5 each)

Advanced study of functional morphology, development, phylogeny and natural history of invertebrates excluding insects. Biology 3521: lower invertebrates including protozoa, sponges, cnidarians and worms. Biology 3522: higher invertebrates including mollusks, arthropods, echinoderms and minor phyla. Prerequisites: BIOL 1301-2-3 or equivalents. Not open for credit to students who have taken M SC 4125 and 4126. Three hrs. lect., 6 hrs. lab/field. (Alt.W, Alt, Sp)

3800 Achievements of Women in Science (4)

Historical and contemporary analysis of the achievements, lives, influences, experiences, attitudes, and status of women in science and mathematics with special emphasis on the role of education, mentoring, family, and the media. Cross-listed with [CHEM](#), [GEOL](#), and [PHYS 3800](#).

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units, 4 units of which are applicable to biology major or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)

4010 Microbes and Humanity (4)

Historical review of microbial organisms, their role in causing disease and beneficial contribution to humanity. For Liberal Studies, Biology Majors (B.A. only), and General Education (Lifelong Understanding). Does not meet Nursing prerequisite requirements. Not open for credit to students who have taken BIOL 3005 or BIOL 3405. Prerequisite: BIOL 1001, 1002 or equivalent. (Y)

4015 Horticultural Botany (4)

Plant biology as illustrated by contemporary horticultural applications with lab exercises on plant morphology, plant growth experiments, water relations, horticultural techniques and soil conditioning. Hormones, pruning and propagation, mineral nutrition, fertilizers, flowering and pollination, photosynthesis, water condensation, ecological adaptations, biotechnology applications. Prerequisites: BIOL 1001 and 1002 or equivalent or permission of instructor. Applicable to B.A. degree in Biological Sciences, but not to B.S. degree in Biological Sciences. Three hrs. lect, 3 hrs. lab/field.

4020 Contemporary Human Biology (4)

Contemporary biology issues are examined to promote understanding of topics directly affecting human lives. Major emphasis on the modern biology of human genetics, biotechnology, health, nutrition, and bioethics. Not for Biology major credit.

4120 Radiation Biology (4)

Biological effects of radiation and radio tracer studies including physiological, ecological, clinical, and experimental applications; basic radiation physics, radioactivity, half-life, detection and measurement, counting statistics and techniques, and safety. Prerequisites: BIOL 3150, PHYS 2703, and college algebra. Three hrs. lect., 3 hrs. lab.

4130 Biogeography (4)

Study of the distribution of organisms; the evolution and ecology of biomes, their biotas, dispersal, change in range, phylogenetic systematics and islands. Cross-listed with [GEOG 4130](#). Prerequisites: BIOL 1301 and 1302 or equivalent.

4155 Analysis of Development (4)

Advanced study of developmental phenomena and their causal analysis, based on biochemical, biophysical, and microsurgical techniques, with examples from the simplest to the most complex living systems. Prerequisite: BIOL 3140.

4160 Medical Physiology (4)

Particular emphasis on human pathophysiology, its etiology, diagnosis, and the physiologic rationale for treatment of multiple system disease, entities, and/or failures. Prerequisites: BIOL 2010 and 2020, or BIOL 3150 or equivalent, or consent of instructor. (F, Sp)

4170 Cellular Physiology (5)

Living activities of cells and tissues, including nutrition, response, growth and reproduction; unique problems in different groups of organisms. Prerequisites: BIOL 1301-2-3 or equivalent; general chemistry and organic chemistry. Three hrs. lect., 6 hrs. lab.

4180 Molecular Genetics (4)

Analysis of gene structure and theories of gene action. Information coding and transmission in genetic systems. Genetic mechanisms peculiar to microorganisms. Prerequisites: BIOL 3120, CHEM 2301-2 or CHEM 3301-2-3.

4200 Plant Taxonomy (4)

Principles of plant taxonomy. Field and laboratory studies of native seed plants. Prerequisites: BIOL 1301 or equivalent. Two hrs. lect., 6 hrs. lab., field trips.

4300 General Entomology (4)

Introduction to the anatomy, physiology, ecology and behavior of insects. Identification of local insect forms and techniques of collecting, rearing and preserving insects. Prerequisites: BIOL 1301 and 1302. Two hrs. lect., 6 hrs. lab., field trips.

4310 Insect Systematics and Identification (4)

Advanced study of the evolutionary history and systematics of insects and their terrestrial arthropod relatives. Taxonomy and identification of insects including techniques of collecting and preserving. Prerequisites: BIOL 1301 and 1302 or equivalents. Two hrs. lect., 6 hrs. lab/field. Alt. (Alt. Y)

4320 Plant Ecology (4)

Plant populations and communities with emphasis on those in California. Factors influencing composition and distribution such as geology, soils, climate, topography, and physiography. Methods of vegetation analysis including appropriate computer programs. Prerequisites: BIOL 3110 or equivalent. Two hrs. lect., 6 hrs. lab/field.

4411-12 Medical Microbiology I, II (5,5)

Laboratory isolation and identification and host-parasite interactions of the Gram negative (4411) and the Gram positive, acid-fast anaerobic (4412) pathogenic bacteria. Prerequisites: BIOL 3405 or equivalent. 4412 may be taken prior to 4411. Three hrs. lect., 6 hrs. lab. (F, W)

4420 Genetics Laboratory (4)

Introduction to genetic analysis including classical experiments with viruses, bacteria and fruit flies. Implementation of genetic variants in DNA technology. Prerequisites: BIOL 3120 or equivalent. Two hrs. lect, 6 hours lab.

4430 Immunology (3)

Specific and nonspecific reactions in immunity; manifestations of antigen-antibody reactions, hypersensitivity and transplantation immunity. Prerequisite: BIOL 1301-2-3, BIOL 3120, CHEM 2301-2 or CHEM 3301-2-3. (Sp)

4431 Immunology Laboratory (2)

Antibody/antigen interactions, T and B cell functions, and the variability in the immune response. Biochemical and recombinant DNA techniques as well as standard immunodiagnostic tests. Prerequisites: BIOL 1301-2-3 or equivalent, and prior or concurrent enrollment in BIOL 4430 or equivalent. Six hrs. lab.

4440 Immunohematology (3)

Theories and techniques of blood banking, including all aspects of blood groups and transfusion. Prerequisite: BIOL 3120 or equivalent. Two hrs. lect., 3 hrs. lab. (W)

4450 Cell Culture Techniques (4)

Techniques of in vitro culture of primary and established cell lines of multi-cellular origin. Topics include nutrition, growth, cloning, cell fusion, transformation, preservation, karyotyping, autoradiography, metabolic labeling, quality control applications. Prerequisite: permission of instructor. Two hrs. lect., 6 hrs. lab. (Sp)

4460 Plant Cell and Tissue Culture (4)

Techniques in the culture of isolated plant organs, tissues, and cells. Topics include sterile technique and media preparation, cell and protoplast isolation, callus and suspension cultures, plant transformation and regeneration, and commercial propagation techniques. Prerequisite: permission of Instructor. Two hrs. lect., 6 hrs. lab.

4470 Physiological and Molecular Plant Biology (4)

Physiological and molecular aspects of plant biology. Topics include photosynthesis, plant development, and the interaction of plants with their environment. Laboratory exercises cover basic techniques in modern physiological and molecular plant biology. Prerequisites: BIOL 1302-3 or equivalents. Two hrs. lect., 6 hrs. lab.

4480 DNA Sequencing and Sequence Analysis (2)

Determination and analysis of the base sequence of DNA. Various approaches to preparing DNA for sequencing, generation of reaction sets, preparing and running sequencing gels, sequence reading, computer analysis of sequence data, and DNA data base comparisons. Prerequisites: BIOL 1303 and 3120, or equivalent. Six hrs. lab.

4501 Comparative Animal Physiology (5)

Physiological processes fundamental to invertebrate and vertebrate animals: digestive, circulatory neuromuscular, metabolic, excretory and endocrine systems. Emphasis on their ability to cope with internal and external environmental changes. Prerequisites: BIOL 3150 or consent of instructor. Three hrs. lect., 6 hrs. lab.

4505 General Endocrinology (4)

Anatomy, physiology, and biochemistry of the endocrine system in vertebrate and invertebrate organisms. Prerequisite: BIOL 3150.

4510 Neurobiology (4)

The structure and function of the vertebrate and invertebrate nervous system with emphasis on the principles of communication, control, and sensorimotor responses. Survey of concepts of neurochemistry, feedback, bionic models, and higher brain processes. Prerequisites: BIOL 3150 or BIOL 2010, 2020 or consent of instructor.

4518 Animal Behavior (5)

Behavior patterns of animals; sensory adaptations, perception, orientation, imprinting instinct and learning, social and reproductive behavior; communication; emphasis on evolutionary relations. Prerequisites: BIOL 1301-2-3 or equivalent. Three hrs. lect., 6 hrs. lab./field.

4520 Mammalian Physiology (4)

Principles of mammalian physiology, including laboratory experiments in cardiovascular, respiratory, gastrointestinal and renal physiology. Prerequisites: BIOL 3150 or consent of instructor. Two hrs. lect., 6 hrs. lab.

4530 Ecological Methods (4)

Methods of design and analysis of ecological studies, including sampling techniques, field and laboratory measurements, and computer-aided data analysis including introductory modeling. Recommended for students interested in advanced study in ecology or conservation or environmental biology. Prerequisites: BIOL 1301-2-3 or equivalent, and BIOL 3110. Recommended prerequisite: statistics course. Three hrs. lect., 3 hrs. lab/field.

4560 Wildlife Ecology (4)

North American gamebirds and mammals, world wildlife problems, wildlife management principles and techniques,

the U.S. and California endangered species programs, and practical field work in the preparation of a wildlife environmental impact report. Prerequisite: BIOL 3110 or equivalent, or permission of instructor. Two hrs lect., 6 hrs. lab/field.

4565 Ornithology (4)

The major adaptations and habits of birds, including sensory and behavioral limitations, flight, migration, nesting, and distributional ecology. Identification and taxonomy with field and lab work emphasizing western U.S. forms. Prerequisites: BIOL 1301-2-3 or equivalent. Two hrs. lect., 6 hrs. lab/field.

4570 Ichthyology (4)

The ecology, physiology, ethology, identification, and evolution of the fishes of California and coastal waters. Prerequisites: BIOL 1301-2-3 or equivalent. Cross-listed with [M SC 4570](#). Two hrs. lect., 6 hrs. lab. and/or field trips.

4575 Herpetology (4)

The ecology, physiology, ethology, identification, and evolution of amphibians and reptiles with emphasis on western forms. Prerequisites: BIOL 1301-2-3. Two hrs. lect., 6 hrs. lab/field.

4580 Natural History of the Vertebrates I (5)

Water birds, amphibians and large mammals of northern California. Field trips include water bird cruises on S.F. Bay, trips to Sacramento valley waterfowl refuges, and a weekend stay at Cleary Reserve. Prerequisites: BIOL 1301-2-3 or equivalents. Three hrs. lect., 6 hrs. lab/field.

4581 Natural History of the Vertebrates II (5)

Non-aquatic birds, reptiles, and small mammals of California. Field trips include local regional parks, a riparian habitat on the Stanislaus River, and a weekend trip to the Mojave Desert. Prerequisites: BIOL 1301-2-3 or equivalents. Three hrs. lect., 6 hrs. lab/field.

4590 Biology of Marine Mammals (5)

Taxonomy, anatomy, physiology, ecology, evolution, behavior, and conservation of marine mammals. Lab-field includes trips to observe whale migration, seal rookeries, sea otter feeding areas, and marine mammal facilities. Cross-listed with [M SC 4590](#). Prerequisites: BIOL 1301-2-3 or equivalent; junior standing. Three hrs. lect., 6 hrs. lab/field.

4630 Biological Photography (4)

Using photography to record scientific information accurately and artistically. Emphasis on color slide field macrophotography. Also photomicrography, telephoto flash, and hand colored high resolution photography. Prerequisites: a biology course, operational knowledge of a 35mm camera, consent of instructor. Recommended: MCOM 2700. Two hrs. lect., 6 hrs. lab./field trips.

4820 Biology Seminar (1)

Guest speakers describe their biological research and develop a dialogue between faculty and students. May be repeated once for credit. Prerequisite: one course in biology. Not applicable to G.E. requirements.

4900 Independent Study (1-4)

Marine Science Courses

Offered at Hayward Campus

- BIOL 3015 Natural History of Marine Organisms (4)
- BIOL 3115 Marine Biology (4)
- BIOL 4570 Ichthyology (4)
- BIOL 4590 Biology of Marine Mammals (5)

Offered at the Moss Landing Marine Laboratories

(See the undergraduate [Marine Sciences chapter](#) for descriptions of the following courses.)

Courses listed under Marine Sciences at Moss Landing Laboratories are offered on a semester basis in the Fall and Spring. Semester units have been converted to quarter units.

- M SC 4103** Marine Ecology (6)
- M SC 4104** Quantitative Marine Science (6)
- M SC 4105** Marine Science Diving (4.5)
- M SC 4110** Introduction to Marine Animal Behavior (6)
- M SC 4112** Marine Birds and Mammals (6)
- M SC 4113** Marine Ichthyology (6)
- M SC 4124** Marine Invertebrate Zoology I (6)
- M SC 4125** Marine Invertebrate Zoology II (4.5)
- M SC 4131** Marine Botany (6)
- M SC 4135** Physiological Ecology of Marine Algae (6)
- M SC 4144** Biological Oceanography (6)
- M SC 4161** Marine Fisheries (6)
- M SC 4173** Topics in Marine Science (1.5-6)
- M SC 4174** Topics in Oceanography (1.5-6)
- M SC 4177** Microscope Techniques (4.5)
- M SC 4900** Independent Study (1.5-6)

* Students electing these courses should be aware that they may not be acceptable for admission to graduate and professional schools.

** Students anticipating careers in quantitative biology should include units in both mathematics and statistics as biology Core and Option electives.

*** Can be used in the core or in an option, but not both.

**** Students may take these three courses in any order. One is not prerequisite to any other of these courses.

Business Administration [ACCT, CIS, FIN, MGMT, MKTG, TC]

- [PROGRAM DESCRIPTION](#)
- [FEATURES](#)
- [MAJOR REQUIREMENTS ■ B.S.](#)
- [OPTIONS](#)
- [MINOR](#)
- [SAMPLE PROGRAMS](#)
- [MINORS](#)
- [BUSINESS STUDIES OPTION: LIBERAL STUDIES](#)
- [SECONDARY LEVEL TEACHING PROGRAM](#)
- [UNDERGRADUATE COURSES](#)

BUSINESS ADMINISTRATION



Departments of Accounting and Computer Information Systems, Economics, Management and Finance,
Marketing
School of Business and Economics

Dean: Jay L. Tontz
Dean's Office: Music and Business Bldg., Room 2571
Phone: (510) 885-3311

- **School of Business and Economics Student Service Center** (MB 2525, 510-885-3323)
- **Department of Accounting and Computer Information Systems** (MB 2579, 510-885-3336)

Professors:

Doris G. Duncan, Micah Frankel, Vernon T. S. Kam (Chair), Franklin Lowenthal, Nancy R. Mangold, Bijan Mashaw, Gary R. McBride, Edward T. Ossman, Kenneth Pefkaros, Ray Roberts, Diane Satin, Philip P. Storrer, Kathleen K. Wright

Associate Professors:

Alexander Bordetsky, Ching-Lih Jan, Tung-Shing Lam, Y. Robert Lin, Christopher W. K. Lubwama

Lecturers:

Charlene Abendroth, Suzanne M. Busch, Stuart G. Gould, James E. Potter, Bruce L. Raine, Gregory Sinclair, F. Victor Stanton

- **Department of Economics** (MB 2583, 510-885-3339)

See the undergraduate [Economics chapter](#) for a listing of Economics faculty and a description of the Economics major and minor.

- **Department of Management and Finance** (MB 2591, 510-885-3322)

Professors Emeriti:

Scott H. Partridge, Glen Strasburg

Professors:

S. David Aviel, Sam N. Basu, Loretta Breuning, Samuel I. Doctors, Spyros Economides, J. William Gotcher,

Craig G. Johnson, John G. Kilgour, Duane R. Lambert, John B. Major, Stephen H. Miller, William L. Moore, Vladimir M. Ozernoy, Surendra Pradhan, Zinovy Radovitsky, Susan D. Schaefer, Allen J. Schuh, Paul D. Staudohar, Harry Waters, Jr., John J. Villarreal, William D. Whisler, Donna J. Wiley, Donald H. Wort (Chair), Richard Zock

Associate Professors:

Hadi Behzad, Alan P. Goldberg, Sharon Green, Guido Krickx, Fung-Shine Pan, Lynn Pi, Nicolai Rogovsky

■ **Department of Marketing** (MB 2583, 510-885-4146)

Professors:

Bruce MacNab, Lance A. Masters (Chair), Ricardo L. Singson, Norman Smothers, Eric Soares

Associate Professors:

Jagdish Agrawal, Chong Lee, Steve Ugbah

Assistant Professor:

Cesar Maloles

Lecturers:

Deborah Brown, Stevina Evuleocha

■ **Institutes and Centers**

Center for Business and Environmental Studies.

Director: Samuel I. Doctors

Center for Economic Education.

Director: Jane E. Lopus

Center for New Ventures and Alliance

Director: Ricardo L. Singson

Human Investment Research and Education Center

Director: Nan Maxwell

Institute of Research and Business Development

Executive Director: Bruce MacNab; *Deputy Executive Director:* Shyam Kamath; *Associate Director:* Nikolai Rogovsky

Smith Center for Private Enterprise Studies

Director: Charles W. Baird; *Associate Director:* Sam Basu

PROGRAM DESCRIPTION

The School of Business and Economics is committed to providing a broadly oriented professional education to prepare students for careers in business, government, and non-profit organizations. Our program is based on the realization that while many business school graduates secure their initial job through their specialization in one of the functional areas, in a relatively short period of time they progress to positions that require a broad managerial approach incorporating the perspectives of other specialties in addition to their own.

Thus, our Business Administration Major is structured around a large core of required courses that exposes our students to the basic tools of quantitative methods and economic theory, provides them with an introduction to each of the primary functional areas of business, and still leaves them the opportunity to pursue a limited concentration in one or two of these specialized areas. This extensive set of core courses lets students develop a substantive background in the management of organizations prior to choosing an option and enables them to change options during their program with little or no loss of progress toward their degree.

The undergraduate and the graduate programs in Business Administration are accredited by the American Assembly of Collegiate Schools of Business.

For more information and advising, contact the Business & Economics Student Service Center, MB 2525, (510) 885-3323.

FEATURES

All core and option requirements of the undergraduate programs of the School of Business and Economics are available on the Hayward campus. These options include Accounting, Business Computer Telecommunications, Computer Information Systems, Finance, General Business, Human Resources Management, Managerial Economics, Marketing, New Ventures and Small Business, Organizational Communication/Public Relations, Production and Operations Management, Purchasing and Materials Management, and Real Estate Management. Minors are also available in Business Administration, Business Computer Telecommunications, Computer Information Systems, International Business, Marketing, and Taxation. All upper division Business Administration core courses plus selected option courses are also offered at the Contra Costa Campus. Sufficient courses in these options: Accounting, Business Computer Telecommunications, Computer Information Systems, Finance, General Business, Human Resources Management, and Marketing Options are scheduled at the Contra Costa Campus so that all of the upper division requirements for these options can be completed there. This set of option courses frequently overlaps the requirements of other options, so that at least one or two courses from most of the remaining options can be taken at the campus.

The School of Business and Economics has a Student Computing Lab with microcomputers and computer terminals that access the campus mainframes and the CSU statewide computer network. The Student Computing Lab is entered through MB 2519. The Contra Costa Center computer lab is equipped with both PC/Windows and Macintosh hardware which can be used as microcomputers or as access to the mainframes on the Hayward campus and to the CSU statewide computer network.

MAJOR REQUIREMENTS - B.S.

Consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 115-123 units; the B.S. degree requires a total of 186-190 units. The Business Administration major consists of (1) lower division core requirements, (2) upper division core requirements, and (3) requirements in one option or in an approved minor from outside the School of Business and Economics.

I. Lower Division (42 units)

- ACCT 2251 Principles of Accounting I (4)
- ACCT 2252 Principles of Accounting II (4)
- ECON 2301 Principles of Microeconomics (4)
- ECON 2302 Principles of Macroeconomics (4)
- MGMT 2701 Legal Environment of Business (4)
- MATH 1130 College Algebra (4)
- MATH 1810 Mathematics for Business & Social Science I (4)
- MATH 1820 Mathematics for Business & Social Science II (4)
- P/C Software Proficiency (0)
- STAT 2010 Statistics for Business & Economics (5)
- PSYC 1000 General Psychology (5)

Notes on Mathematics/Statistics Courses

Students who plan to pursue one of the more quantitative business options (e.g., Production and Operations Management) or graduate programs are encouraged to enroll in MATH 1304 and 1305, Calculus I and II, in place of MATH 1810-20.

College algebra is the prerequisite to MATH 1810. This prerequisite cannot be bypassed. It can be satisfied by (a) passing MATH 1130 or (b) passing Cal State Hayward-accepted transfer-equivalent course for MATH 1130 or (c) achieving a college-algebra-level score on the Mathematics Placement Test (MPT). Note that transfer students, graduating under the 1989-90 or more current catalog who completed otherwise acceptable coursework for MATH 1810-20 (MATH 1810-20 did not enforce a college algebra prerequisite), will be required to complete MATH 1130 or its equivalent, or to achieve a college-algebra-level score on the MPT.

Students who have a grade of "B" or better in MATH 1810 or its equivalent are encouraged to substitute STAT 3502 Statistical Inference I, for STAT 2010.

II. Upper Division Core Requirements (57-61 units)

ACCT 3200 Accounting Control (4)

CIS 3060 Computer Information Systems in Management (4) (Required for all options except B.C.T. , C.I.S.) or
CIS 3270 Fundamentals of Business Program (4) (Required for B.C.T. and C.I.S. Options only)

ECON 3005 Macro-Economics Theory (4)

ECON 3551 Managerial Economics (4)

ECON 3552 Introduction to Production Economics (4) or MGMT 3620 Introduction to Production & Operations
Management (4) (Students who plan to pursue the Production and Operations Management option should take
MGMT 3620 instead of ECON 3552.)

FIN 3300 Financial Management (4)

MGMT 3100 Quantitative Methods in Business (5)

MGMT 3600 Theories of Management (4)

MGMT 3614 Organizational Behavior (4)

MGMT 3680 Industrial Relations (4) (Not required in ACCT, B.C.T., C.I.S. Options)

MGMT 4500 Business, Government & Society (4)

MGMT 4650 Seminar in Strategic Business Management (4)

MGMT 4670 Multinational Business (4)

MKTG 3401 Marketing Principles (4)

MKTG 3495 Administrative Communication (4) (Fulfills the University Writing Skills Requirement for students
who started working on their current bachelors degree before Fall 1985)

III. Option Requirements (16-28 units)

If you wish to have more than one option recorded on your permanent record, the pattern of courses taken to fulfill each additional option must differ by a least 3 courses and 12 units from any other option or combination of options certified for you. Business Administration majors may substitute an approved minor from outside the School of Business and Economics for the option requirement. Interdisciplinary minors (Advertising, Communication Skills, and International Business) are acceptable. Students choosing to do an approved minor in place of an option must complete all 103 units of the lower division and upper division Business Administration core courses plus the additional units necessary for their minor. The program content of their minor must be approved by the SBE minor advisor and an advisor from the area of the minor. The degree for students taking this route will be a B.S. degree, Major in Business Administration, Minor in _____. Note again that, where otherwise appropriate, units used to satisfy the requirements of a minor can also meet general education and/or major requirements. *Courses taken for a minor that are to be used in place of an option must be taken for a letter grade.*

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

OPTIONS

A student cannot have both an option and a minor in the same area.

Accounting

All business operations are involved with decision-making, and accounting is an integral part of this process. The task of accounting is to identify, measure, and communicate relevant information for decision-making purposes. Business has increased in size and complexity to the point that accounting has become one of the largest fields of study at the University. The demand for well-trained accountants remains high. The program is rigorous, challenging, interesting, and rewarding. The program will prepare students for employment in private, public, and non-profit accounting, and will aid in the preparation for all professional examinations. Required courses: ACCT 3211, 3212, 3213, 3230, 4270 and choice of two from: 3220, 4220, 4231, 4232, 4250, 4280, 4340, 4370 and 4950. (Students completing both an ACCT and C.I.S. option should replace CIS 3060 and 4270 with CIS 3270, 3281, and 3282.) Academic Renewal is allowed only once per ACCT course.

Advertising

The Advertising option is offered in cooperation with the Department of Mass Communication and is also available under that major. Required courses: MKTG 3410, 4445; MCOM 4520, 4530. See also undergraduate [Advertising chapter](#). A student cannot receive both an Advertising option and minor.

Business Computer Telecommunications (B.C.T.)

This option was developed because of the rapid growth and spread of digital electronics to enable the conversion of data, voice, image, and video into bit streams that can be transmitted over a common medium. The rapid growth of telecommunications has created a critical lack of trained network administrators. This impacts operators of telephones, television, cellular, and satellites. New courses keep the curriculum on the forefront of this expanding field. Required courses: TC 3276, 3277, 3377, 4477, and choice of six units from the following: CS 2170,* 2430*; CIS 3271, 3281*; TC 4265, 4877. A student cannot receive credit for both B.C.T. option and minor.

Computer Information Systems (C.I.S.)

This option prepares the graduate for positions in the computer-based data processing areas of business. Careers in computer information systems are rapidly growing. Because computers are becoming so much a part of an organization's life, there is a need for this training in nearly every area of operation--finance, production and manufacturing, marketing, personnel, accounting, auditing, purchasing, distribution, as well as the computer department itself. As a graduate, you might help the organization design, develop, program, and install new computer or telecommunication systems. You might work for organizations in many different industries. Or you might concentrate on one or a few areas in which you have a particular interest--such as banks, stock brokers, hospitals, hotels, real estate, public utilities, oil and gas, electronics, insurance, law, and government agencies. You might become involved in the development of systems which apply new techniques--such as artificial intelligence, voice recognition, and optical storage. Required courses: CIS 3271, 3281, 4271; TC 3276, and choice of two from the following: CIS 3001, 3272, 3275, 3282, 4273, 4275, 4277, and TC 4265. (Students completing both an ACCT and CIS Option should replace CIS 3060 and 4270 with CIS 3270, 3281, and 3282.) A student cannot receive credit for both a C.I.S. option and minor.

Finance

The Finance option is designed to prepare students for careers in the financial management of business firms, banks, related financial institutions, and in investment banking, investment management, and securities brokerage. In addition to the development of a theoretical basis of decision-making, coursework emphasizes experience in solving the

problems that face the financial manager. Required courses: FIN 4300 and choice of three from the following: ECON 3310, FIN 3320, 3360, 4310, 4320, 4325, 4370, 4375, 4410*, 4415, 4470*.

General Business

This option is based on courses from several different business fields rather than on a concentration of courses in one field. It is designed for individuals interested in management trainee positions in large firms, in graduate study in business administration, or in fields such as law or public administration. However, students planning on graduate work in accounting should complete the Accounting Option rather than General Business Option. Choice of four: CIS 4271; FIN 4320; MGMT 3610, 3612, 3624, 3626, 4640; MKTG 3420, 4485 or 4490.

Human Resources Management

The Human Resources Management option prepares students for careers in human resources management and labor relations in business, government, and labor organizations. Those with a strong interest in human behavior will find this to be an appropriate area of study. Coursework is concerned with management of human resources, including selection, training, evaluation, and compensation of employees. Required courses: MGMT 3610 and choice of three from the following: MGMT 3612, 3616, 4610, 4613, 4615, 4675, 4680, 4683.

Managerial Economics

The Managerial Economics option concentrates on the economic aspects of business decision making. The coursework emphasizes forecasting product demand, setting product prices, estimating production costs, calculating firm profitability, evaluating investment alternatives, and assessing the effects of government regulations and industry competition on firm performance and strategy. Students selecting this option will be prepared for careers in banking, finance, economic forecasting, and business economics. The option also provides an excellent background for graduate training in economics and business. Students in this option are encouraged to take MATH 1304 and 1305 instead of MATH 1810 and 1820. Required Courses: ECON 3310 and choice of three: ECON 3370, 3375, 3500, 3680, 3685, 4306, 4315, 4400, 4520, 4590, 4700, 4705. A student cannot receive credit for both an Economics major or minor and the Managerial Economics option.

Marketing Management

The Marketing Management option is concerned with appraising the tastes and preferences of potential buyers, forecasting the future conditions in the market, designing effective marketing strategies, successfully implementing chosen marketing programs, and evaluating the performance of marketing personnel and programs. The option leads to a broad job market offering career opportunities in such areas as sales, brand management, retailing, wholesaling, advertising, marketing research, physical distribution, general marketing management, and government regulations. Required courses: MKTG 4400 and choice of three: MKTG 3410, 3420, 3430, 4414, 4415, 4417, 4422, 4445, 4450, 4470 or 4490. A student cannot receive credit for both a Marketing option and minor.

New Ventures and Small Business Management

This option concentrates on the management of existing small and medium size businesses, the procedures for establishing new ventures either as new firms or as subdivisions of existing firms, and the problems confronting new venture managers during the critical start-up period. The option provides an excellent preparation to those who plan to have their own firm, to be employed by small or medium size business firms with high growth potential, or to work in positions within financial institutions, government agencies, management consulting firms, and marketing agencies that deal primarily with the needs and problems of small to medium sized firms. Required Courses: MKTG 4485, 4490, and choice of two from the following: ACCT 3230; CIS 4275; MGMT 3610, 3624, 4640; MKTG 3410, 3420, 4445.

Organizational Communication/Public Relations

Select two courses from MKTG 3420, 4414, 4415, 4422, 4445, and choose two courses from either Group I (MCOM 3010, 3100, 3310, 3800, 4510, 4530) or Group II (SPCH 3510, 3515, 4800, 4810, 4830, 4840). Note: MCOM 3800 and MKTG 4445 cannot both be counted in the option.

Production and Operations Management

This option provides specialized knowledge for careers in production management in manufacturing and service enterprises. Emphasis is on such areas as production planning, forecasting, inventory control, quality control, and use of computers. Special attention is given to the larger sphere of operations management which includes services, governmental organizations, and large-scale, complex systems. Students in this option should take MATH 1304 and 1305 instead of MATH 1810 and 1820, and MGMT 3620 instead of ECON 3552. Required courses: MGMT 4640 and choice of three from the following: CIS 4271 or 4273 or 4275; MGMT 3110, 3610, 3624, 3626, 3645, 4625; MKTG 4490.

Purchasing and Materials Management

In recent years, the purchasing and materials function has undergone a complete re-evaluation by business management. It is now a function with the responsibility and the authority for making major contributions to profits. The option is designed to prepare students to buy and manage the material resources of a firm effectively. Required courses: MGMT 3624, 4625 and choice of two from the following: CIS 4271 or 4273 or 4275; MGMT 3110, 3626, 3645, 4640, 4701; MKTG 3420. MGMT 3624 will be waived for a student who has completed 8 semester or 12 quarter units of community college purchasing courses. The student will then have to complete three electives.

Real Estate Management

This option prepares students for careers in environmental and urban planning, lending and title institutions, investment, site location, real estate management, and real estate brokerage. The program is available to students with no prior work in real estate and, in addition, enables students of real estate in the community colleges to finish a baccalaureate major in Business Administration while building on the real estate courses offered by the community college. This is an advanced, comprehensive program in real estate management combined with a solid core of related business administration courses. Required courses: FIN 2400 and choice of three from the following: ECON 3500; FIN 4410, 4415, 4470. FIN 2400 will be waived for a student who has completed 8 semester or 12 quarter units of community college real estate courses. The student will then have to complete all four of the electives.

MINOR

From Outside the School of Business and Economics

In place of the option requirement, a student may choose to complete a minor from outside the School of Business and Economics. A second major from outside the School and interdisciplinary minors such as Advertising, Communication Skills, and International Business may also be substituted for the option requirement. The Minor program must be approved by both the Minor Advisor of the School of Business and Economics and an advisor from the area of the minor. Note that courses taken for a minor that is to be used in lieu of an option must be taken for letter grades rather than CR/NC.

The number of units required for the Business Administration major under this alternative is the combined 103 units of the lower division and upper division Business Administration cores for the non-CIS Option student plus the additional units necessary for the chosen, approved minor. Note that, where otherwise appropriate, units used to satisfy the requirements of a minor can also meet general education and/or major requirements.

The degree conferred under this alternative will be "Bachelor of Science, Major in Business Administration, Minor in . . ."

SAMPLE PROGRAMS

Business Administration

Freshman Year

U.S. History/Institutions Requirement (8)
Area A.3 G.E. Requirement** (4)
ENGL 1001, 1002 (8)
MATH 1130, 1810-20 (12)
PSYC 1000 (5)
SPCH 1000 or 1004 (4)
Other G.E. courses

Sophomore Year

ACCT 2251 (4)
ACCT 2252 (4)
MGMT 2701 (4)
ECON 2301-02 (8)
STAT 2010 (5)
PC Software Proficiency
Other G.E. courses

Junior and Senior Years

The following sample programs for the options assure that prerequisite courses are taken in proper sequence. If deviations are made from the proposed programs, check individual course descriptions to assure that prerequisites are met.

Accounting Option

Junior Year

First Quarter

ACCT 3211 (4)
ACCT 3200 (4)
ECON 3551 (4)
MGMT 3600 (4)

Second Quarter

ACCT 3212 (4)
CIS 3060 (4)
MGMT 3100 (5)
MKTG 3401 (4)

Third Quarter

ACCT 3213 (4)
ACCT 3230 (4)
ECON 3005 (4)
MKTG 3495 (4)

Senior Year

First Quarter

ACCT elective (4)
ECON 3552 or MGMT 3620 (4)
FIN 3300 (4)

Second Quarter

ACCT elective (4)
MGMT 3614 (4)
MGMT 4500 (4)
MGMT 4670 (4)

Third Quarter

CIS 4270 (4)
MGMT 4650 (4)

Options in Advertising, Marketing and New Ventures and Small Business Management

Junior Year

First Quarter

ACCT 3200 (4)
ECON 3551 (4)
MGMT 3600 (4)
MKTG 3401 (4)

Second Quarter

FIN 3300 (4)
MGMT 3614 (4)
MGMT 3680 (4)
Option course (4)

Third Quarter

CIS 3060 (4)
MGMT 3100 (5)
MKTG 3495 (4)
Option course (4)

Senior Year

First Quarter

ECON 3005 (4)
ECON 3552 or MGMT 3620 (4)
MGMT 4670 (4)
Option course (4)

Second Quarter

MGMT 4500 (4)
Option Course (4)

Third Quarter

MGMT 4650 (4)

Option in Business Computer Telecommunications

Junior Year

First Quarter

ACCT 3200 (4)
CIS 3270 (4)
MGMT 3100 (5)

Second Quarter

TC 3276 (4)
MGMT 3600 (4)
MKTG 3401 (4)
ECON 3551 (4)

Third Quarter

ECON 3005 (4)
FIN 3300 (4)
MKTG 3495 (4)
TC 3377 (4)

Senior Year

First Quarter

ECON 3552 or MGMT 3620 (4)
MGMT 3614 (4)
TC 4477 (4)

Second Quarter

MGMT 4500 (4)
MGMT 4670 (4)
Option Course (4)

Third Quarter

MGMT 4650 (4)
Option Course (4)

Options in Finance and General Business

Junior Year

First Quarter

ACCT 3200 (4)
ECON 3551 (4)
MGMT 3100 (5)
MGMT 3600 (4)

Second Quarter

ECON 3005 (4)
FIN 3300 (4)
MGMT 3614 (4)
MKTG 3401 (4)

Third Quarter

CIS 3060 (4)
MGMT 3680 (4)
MKTG 3495 (4)
Option course (4)

Senior Year

First Quarter

MGMT 4500 (4)
Option Courses (8)
MGMT 4670 (4)

Second Quarter

ECON 3552 or MGMT 3620 (4)

Third Quarter

Option Course (4)
MGMT 4650 (4)

Option in Computer Information Systems

Junior Year

First Quarter

ACCT 3200 (4)
CIS 3270 (4)
ECON 3551 (4)
MGMT 3100 (5)

Second Quarter

CIS 3271 (4)
CIS 3281 (4)
MGMT 3600 (4)
MKTG 3401 (4)

Third Quarter

ECON 3005 (4)
FIN 3300 (4)
MKTG 3495 (4)
TC 3276 (4)

Senior Year

First Quarter

CIS 4271 (4)

Second Quarter

MGMT 4500 (4)

Third Quarter

MGMT 4650 (4)

ECON 3552 or MGMT 3620 (4)	MGMT 4670 (4)	Option Course (4)
MGMT 3614 (4)	Option Course (4)	

Option in Managerial Economics

Junior Year

<i>First Quarter</i>	<i>Second Quarter</i>	<i>Third Quarter</i>
ACCT 3200 (4)	ECON 3551 (4)	ECON 3310 (4)
ECON 3005 (4)	FIN 3300 (4)	MGMT 3100 (5)
MGMT 3600 (4)	MGMT 3614 (4)	MKTG 3495 (4)
MKTG 3401 (4)	MGMT 3680 (4)	Option course (4)

Senior Year

<i>First Quarter</i>	<i>Second Quarter</i>	<i>Third Quarter</i>
ECON 3552 or MGMT 3620 (4)	CIS 3060 (4)	Option course (4)
MGMT 4670 (4)	MGMT 4500 (4)	MGMT 4650 (4)
Option course (4)		

***Option in Human Resources Management,
Purchasing and Materials Management, Production
and Operations Management, and Real Estate
Management***

Junior Year

<i>First Quarter</i>	<i>Second Quarter</i>	<i>Third Quarter</i>
ACCT 3200 (4)	CIS 3060 (4)	FIN 3300 (4)
ECON 3551 (4)	ECON 3552 or MGMT 3620 (4)	MGMT 3680 (4)
MGMT 3100 (5)	MGMT 3614 (4)	MKTG 3495 (4)
MGMT 3600 (4)	MKTG 3401 (4)	Option course (4)

Senior Year

<i>First Quarter</i>	<i>Second Quarter</i>	<i>Third Quarter</i>
ECON 3005 (4)	MGMT 4500 (4)	MGMT 4650 (4)
MGMT 4670 (4)	Option course	Option course (4)
Option course (4)		

Minor from Outside the School

Junior Year

<i>First Quarter</i>	<i>Second Quarter</i>	<i>Third Quarter</i>
ACCT 3200 (4)	ECON 3005 (4)	FIN 3300 (4)
ECON 3551 (4)	MGMT 3614 (4)	MGMT 3100 (5)
MGMT 3600 (4)	MKTG 3401 (4)	MKTG 3495 (4)
Minor Course (4)	Minor Course (4)	Minor Course (4)

Senior Year

<i>First Quarter</i>	<i>Second Quarter</i>	<i>Third Quarter</i>
ECON 3552 or MGMT 3620 (4)	MGMT 4500 (4)	CIS 3060 (4)
MGMT 3680 (4)	MGMT 4670 (4)	MGMT 4650 (4)
Minor Courses (8)	Minor Courses (8)	G.E. Courses or Minor Courses or Free Electives

MINORS

Subject Area Business Administration

At least 12 units of the coursework must be completed at Cal State Hayward in order for the student to receive recognition of the minor on the Cal State Hayward transcript or diploma. **A student cannot have both an option and a minor in the same area.**

Minor in Advertising

See the undergraduate [Advertising chapter](#) for a description of this minor.

Minor in Business Administration (40 units)

I. Lower Division (20 units)

Complete either alternative A or B

- A. ACCT 2251 Principles of Accounting I (4)
ACCT 2252 Principles of Accounting II (4)
ECON 2301 Principles of Microeconomics (4)
ECON 2302 Principles of Macroeconomics (4)

One of the following (4 units):

- CIS 3060 Computer Information Systems in Management (4)
- C S 1020 Introduction to Computers
- MGMT 2701 Legal Environment of Business (4)
- MKTG 2485 Establishing and Managing a Small Business (4)

- B. ACCT 2210 Accounting for Non-Business Majors (4)
ECON 2301 Principles of Microeconomics (4)
ECON 2302 Principles of Macroeconomics (4)

Two of the following (8 units):

- CIS 3060 Computer Information Systems in Management (4)
- C S 1020 Introduction to Computers (4)
- MGMT 2701 Legal Environment of Business (4)
- MKTG 2485 Establishing and Managing a Small Business (4)

II. Upper Division (20 units)

Students must have completed the prerequisites listed in the course description for any course they select to satisfy the following requirements:

MGMT 3600 Theories of Management (4)

Any two additional courses from the upper division Business Administration core (8)

Any two additional upper division Business Administration courses including the remaining Business Administration courses in the core. (8) *Note:* Business Administration courses are those with Accounting, Computer Information Systems, Finance, Management, Marketing, and Telecommunications prefixes. Courses in Economics cannot be included in these 8 units.

Students taking the Business Administration Minor with the intention of possibly changing to the Business Administration Major, taking a second bachelor's degree in Business Administration, or entering a master's program in Business Administration are urged to discuss their selection of courses for the Business Administration Minor with an

advisor in the School of Business and Economics. Such students, for example, should choose Alternative A to satisfy their lower division requirements and should select MGMT 2701 as their choice within the one-of-five category of Alternative A.

Minor in Business Computer Telecommunications (32-38 units)

The minor in Business Computer Telecommunications is offered through the Accounting and Computer Information Systems Department. Business Administration majors who want to have this minor listed on their transcripts must have at least 18 units in the minor that are not counted for in the major requirements.

I. Lower Division (8-12 units)

ACCT 2210 Accounting for Non-Business Majors (4) or ACCT 2251 Principles of Accounting I (4) and ACCT 2252 Principles of Accounting II (4)
ECON 2301 Principles of Microeconomics (4)

II. Upper Division (20 units)

CIS 3270 Fundamentals of Business Programming (4)
MGMT 3600 Theories of Management (4)
TC 3276 Introduction to Telecommunications (4)
TC 3277 Regulatory Issues in Telecommunications Systems (4)
TC 3377 Telecommunications Standards (4)

III. Elective Requirement

Choose at least 4 units from the following:

CIS 3271 COBOL I (4)
CIS 3281 Systems Analysis and Design (4)
C S 2170 C Language Programming (2)
C S 2430 Computer Organization and Assembly Language Programming (4)
TC 4265 Local Area Networks (4)
TC 4477 Business Computing Environment (4)

Minor in Computer Information Systems (32 units)

The minor in Computer Information Systems is offered through the Accounting and Computer Information Systems Department. Business Administration majors who want to have this minor listed on their transcripts must have at least 18 units in the minor that are not counted for in the major requirements.

I. Lower Division (8 units)

ACCT 2210 Accounting for Non-Business Majors (4) or ACCT 2251 Principles of Accounting I (4)
ECON 2301 Principles of Microeconomics (4)

II. Upper Division (24 units)

CIS 3270 Fundamentals of Business Programming (4)
CIS 3271 COBOL Programming I (4)
CIS 3281 Systems Analysis and Design I (4)
CIS 4271 Data Base Management Systems I (4)
Two additional CIS courses (8)

Minor in International Business

See the undergraduate [International Business chapter](#) for a description of this minor.

Minor in Marketing (32 units)

The minor in Marketing is offered through the Marketing Department. Business Administration majors who want to have this minor listed on their transcripts must have at least 18 units in the minor that are not counted for in the major requirements.

I. Lower Division (12 units)

ACCT 2210 Accounting for Non-Business Majors (4) or ACCT 2251 Principles of Accounting I (4)
ECON 2301 Principles of Microeconomics (4)
MKTG 2485 Establishing and Managing a Small Business (4)

II. Upper Division (20 units)

MGMT 3600 Theories of Management (4)
MKTG 3401 Marketing Principles (4)
MKTG 3420 Sales Analysis and Sales Management (4)
Two additional Marketing courses excluding MKTG 3495, 4485, and 4490 (8)

Minor in Taxation (32 units)

The minor in Taxation is offered through the Accounting and Computer Information Systems Department. Business Administration majors who want to have this minor listed on their transcripts must have at least 18 units in the minor that are not counted for in the major requirements.

I. Lower Division (16 units)

ACCT 2251, 2252 Principles of Accounting I, II (8)
ECON 2301 Principles of Microeconomics (4)
MGMT 2701 Legal Environment of Business (4)

II. Upper Division (16 units)

ACCT 3220 Federal Income Tax Accounting/Individuals (4)
ACCT 3221 Federal Income Tax Accounting/Research and Procedure (4)
ACCT 4220 Federal Income Tax Accounting/Corporations and Shareholders (4)
ACCT 4221 Federal Income Tax Accounting/Partnerships, Estates, Trusts (4)

BUSINESS STUDIES OPTION: LIBERAL STUDIES

For the Business Studies Option in Liberal Studies, see [Liberal Studies](#) in the undergraduate section of this catalog.

SECONDARY LEVEL TEACHING PROGRAM

Students interested in secondary teaching should recognize that the School does not offer either an undergraduate or credential program in Business Education. Furthermore, although students can complete the undergraduate Business Administration major on this campus and then enroll in the fifth year credential program elsewhere, the School does not offer all of the coursework considered prerequisite to some credential programs.

UNDERGRADUATE COURSES

Note: To be eligible for credit for any **3898 Cooperative Education** course, registration for the course must be

completed in advance of the activity (past work experience does not apply, and the activity must be a substantive expansion of the student's exposure to date.

Accounting

2210 Accounting for Non-Business Majors (4)

A survey of accounting concepts designed for students desiring a general knowledge of accounting. Emphasis placed on the use and analysis of accounting data. Not open to students who have taken ACCT 2251. Prerequisite: satisfactory completion of Entry-level Mathematics (ELM) requirement. (F,Sp)

2251, 2252 Principles of Accounting I, II (4 each)

An introduction to accounting analysis and practice. Courses are sequential. Prerequisite: Sophomore standing, satisfactory completion of Entry-level Mathematics (ELM) requirement, and either credit for intermediate algebra or a satisfactory score on the Mathematics Diagnostic Test (MDT). (A)

3200 Accounting Control (4)

Applied course with emphasis on the use of accounting information by management for decision-making purposes in the multi-goal firm, including cost estimation through the use of simple linear regression. Prerequisites: ACCT 2252; MATH 1810; STAT 2010 or equivalents and PC Software Proficiency satisfied. (A)

3211, 3212, 3213 Intermediate Accounting I, II, III (4 each)

Accounting theory, practice, and problems. Balance sheets, income and other statements, working papers, valuation of assets, reserves, correction of statements, and financial reporting. Courses are sequential and require a grade not lower than "C-" to continue. Prerequisite: ACCT 2252 or its equivalent, with a grade not lower than "C-."(A)

3220 Taxation (4)

A broad range of tax concepts. Topics include fundamentals of individual income taxation, property transactions, fringe benefits and retirement plans, C corporations, partnerships, and limited liability companies. Emphasis on role of taxation in decision-making. Tax research and tax planning.

3221 Federal Income Tax Accounting/Research and Procedure (4)

Fundamentals of income tax research methodologies and resources. Emphasis on actual research of simulated tax problems, the procedures to be followed in practicing before the Internal Revenue Service, and review of tax litigation cases. Group/individual projects. Prerequisite: ACCT 3220. (W)

3230 Cost Accounting (4)

Manufacturing accounting theory and problems, records and financial statements; elements of cost; elements of process, specific job order, and standard cost accounting. Concentration on the determination, collection and analysis of costs. Prerequisites: ACCT 3200; MATH 1810; STAT 2010. (A)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. Units not applicable to options or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. CR/NC grading only. (A)

4220 Advanced Studies in Taxation (4)

An in-depth study of special tax issues, especially involving corporations, including ethical considerations, tax research and tax planning. Each type of business entity - sole proprietorship, C corporation, partnership, S corporation, limited liability company - will be studied using a life-cycle approach (formation, operation, dissolution). Exposure to electronic applications. Prerequisite: ACCT 3220.

4221 Federal Income Tax Accounting/Partnerships, Estates, Trusts (4)

Fundamentals of income taxation of partnerships, estates, and trusts. Fundamentals of estate and gift taxation. Emphasis on tax planning, with a basic review of estate planning. Prerequisites: ACCT 3220 and 4220.(Y)

4225 Business Taxation (4)

In-depth analysis of tax effects of business decisions. Impact of income, property, sales, excise, and employment tax considerations on the operations of proprietorships, partnerships, and corporations. Planning for tax minimalization is emphasized. Prerequisite: MGMT 2701 and 3200. (Y)

4226* Volunteer Income Tax Assistance (VITA)--Supervisory III (2)**

Management of a group of VITA centers with emphasis upon teaching first-year supervisors to operate a VITA center effectively, the development of new VITA centers, and the coordination of publicity in geographic areas. Prerequisites: ACCT 3227 and consent of instructor.

4227* Volunteer Income Tax Assistance (VITA)--Supervisory IV (4)**

Coordinating the operations of two or more VITA centers to achieve optimum combination of output and quality control and providing assistance to center supervisors in answering technical taxation questions, directing VITA preparers, and solving other center problems. Prerequisites: ACCT 3220 and consent of instructor.

4231 Strategic Cost Management (4)

Design and implementation of activity-based costing (ABC), activity-based management, and other advanced cost management topics, including life-cycle costing, target costing, cost of quality issues, inventory cost management, and value-chain analysis. Extensive use of case studies and hands-on analysis using software. Prerequisite: ACCT 3230.

4232 Cost Management in Service Organizations (4)

Application of strategic cost management methods to service organizations, such as banks, insurance, telecommunications, distribution, retail, health care, and utility companies. Methods include activitybased costing and management, life-cycle costing, target costing, cost of quality, and value-chain analysis. Extensive use of case studies and hands-on analysis using software. Prerequisite: ACCT 3230.

4250 Auditing (4)

Principles, techniques and procedures in auditing. Prerequisite: ACCT 3213 and 3230. (A)

4280 Accounting for Non-Profit Organizations (4)

Accounting for governmental and other non-profit organizations. Standards and methods for financial reporting. Prerequisite: ACCT 2210 or 2252. (Sp)

4370 International Accounting (4)

International disclosure issues, comparative analysis of financial statements, transfer pricing, multinational reporting problems, and international taxation. Prerequisite: ACCT 2252.

4900 Independent Study (1-4)

4915 Internship in Accounting (1-4)

Supervised work experience with a company, CPA firm, non-profit organization, or governmental agency in a department-approved program. May be repeated for credit. Prerequisites: Vary according to agency or firm. (W)

4950 Financial Fraud: Investigation and Detection (4)

Criminal and civil aspects of financial fraud. Methods of detection, investigation, and deterrence. Prerequisite: ACCT 2210 or ACCT 2251.

Computer Information Systems

1270 PC Fundamentals (2)

Fundamentals using microcomputers operating systems such as WINDOWS and DOS, including subdirectories and batch files. Hands-on business applications using spreadsheet, database, wordprocessing, and electronic mail applications. Satisfies PC Software Proficiency requirement.

3001 Management of Mainframe Operating Systems (4)

Management and use of the IBM VM/CMS operating system. Special emphasis on the tools necessary to effectively use the CMS system for COBOL programming. Hands-on applications. Prerequisite: CIS 3270 or equivalent.

3060 Computer Information Systems in Management (4)

Manager/user roles in planning/developing/implementing business computer systems, system components, user requirements, feasibility study, systems evaluation/acquisition, security, computer-based solutions to business problems, data base software. Project-oriented. Closed to students with credit for CIS 3281.**** Prerequisites: PC Software Proficiency satisfied and junior standing. (A)

3270 Fundamentals of Business Programming (4)

Introduction to computers, both mainframe and microcomputers. Introduction to business computer system fundamentals. History of computers. The concepts of algorithm development and structured programming for business applications; development tools such as flowcharting and pseudocoding.

3271 COBOL Programming I (4)

Introduction to the COBOL programming language with application in information systems. Topics include the syntax and semantics of COBOL, programming methodology, and common algorithms for business data processing. Prerequisites: CIS 3270 or equivalent with grade not lower than "C-" or CS 2360. (A)

3272 COBOL Programming II (4)

Advanced topics in business computer programming applications. Advanced features of COBOL, common data and file structures and algorithms, advanced programming methodology. Prerequisites: CIS 3271 or consent of instructor. (A)

3275 Object-Oriented Programming for Business (4)

Use of object-oriented computer languages to solve business problems with emphasis on object-oriented COBOL. Concepts such as classes, objects, inheritance, and polymorphism are covered using 00 COBOL constructs. Prerequisite: CIS 3271 or equivalent COBOL programming experience.

3281 Systems Analysis and Design I (4)

Fundamentals of the system development life cycle. Problem definition, feasibility study, alternative solutions, cost/benefit analysis, and development and implementation of computerized business systems. Input and output design and software specifications. Prerequisite: CIS 3271 or any programming language approved by the instructor.

3282 Systems Analysis and Design II (4)

Advanced study of classical and current methods of structured design, development, and implementation of computerized business systems. Management considerations including decision support systems and long-range systems planning. Use of case studies and systems development projects. Prerequisites: CIS 3272 and 3281.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. Units not applicable to options or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. CR/NC grading only. (A)

4270 Management and Accounting Information Systems (4)

The concepts, theory, and practice of developing a management information system applied to business functions such as accounting, management, and marketing. Hardware, software, network, data base management and reporting techniques used in business functions. Systems analysis and design and prototyping with emphasis on controls and security considerations. Includes student projects. Prerequisites: ACCT 3200 and CIS 3060 or 3281.

4271 Database Management Systems I (4)

Concepts in database and database management systems. Topics include physical storage of data, logical view of data, schema and subschema, data structures, data models, and database design concepts. Includes student projects. Prerequisites: CIS 3271 and CIS 3281.

4272 Advanced Topics in Business Computer Systems (4)

Advanced study of selected technical aspects of business computer systems, including hardware selection, telecommunications systems, security and control of EDP installations, and contemporary developments in mini- and micro-computers for business usage. Prerequisite: CIS 3281 or consent of instructor.

4273 Decision Support and Expert Systems (4)

The differences among business computer systems and the role of a system in supporting decisions. Topics include: computer-based analytical analysis and model building, developing a hybrid system for supporting decisions, artificial intelligence techniques, the architecture of expert systems, knowledge acquisition, knowledge base, and inference engine. Includes student projects. Prerequisites: CIS 3271 and CIS 3281.

4275 Micro Based Information Systems (4)

Advanced topics in micro-computer based information systems. Topics include microcomputer operating systems, multimedia, differences among hardware/software and operating systems, and networking. Includes student projects. Prerequisites: CIS 3271 and CIS 3281.

4277 Database Management Systems II (4)

Advanced topics in database management systems including data models and data basedesign. Topics include implementation of different data models, query languages, integrity, security, and administration of database. Includes student projects. Prerequisite: CIS 4271.

4900 Independent Study (1-4)

Finance

2400 Fundamentals of Real Estate (4)

An introduction to real estate law, financial institutions and instruments, industry practices, appraisals, and government regulation. Recommended: ACCT 2701. (F, Sp)

3300 Financial Management (4)

Theory and practices that underlie the financial manager's decision-making process. Capital investment analysis, capital structure, dividend policy, risk and return, and market valuation of the firm. Prerequisites: ACCT 3200; ECON 2301-2; STAT 2010. (A)

3320 Financial Markets and Services (4)

The contemporary environment of the financial system and the organization and operation of financial markets, financial products and instruments, and the financial services industry. Prerequisite: FIN 3300.

3360 Management of Risk and Insurance (4)

Techniques of risk management and uses of insurance contracts for individual and business insurance planning. The operation and regulation of the insurance industry and contract provisions for property, liability, life, annuity, health, and disability insurance. Prerequisite: Junior standing.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Units not applicable to options or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. CR/NC grading only. (A)

4300 Corporate Finance (4)

In-depth study of theories and practices of corporate financial management. Emphasis on corporate financial decision-making, including capital budgeting, capital structure, dividend policy, risk management, and international financial management. Prerequisite: FIN 3300.

4310 Investment Analysis (4)

Introduction to security analysis and portfolio management. Prerequisites: FIN 3300 and MATH 1820. (F, W, Sp)

4320. Problems in Corporate Finance (4)

Studies of specific problems in corporate financial policy formulation and decision-making using financial data bases and models. Prerequisites: FIN 3300 and MATH 1820. (A)

4325 Introduction to Commercial Banking Operations (4)

An introduction to commercial banking. The emphasis is on operations of the bank, its organization structure, accounting procedures, and financial management objectives and policies. Prerequisite: FIN 3300.

4370 Seminar in Financial Theory (4)

Selected topics dealing with recent developments in financial theory and management practice. May be repeated for credit with the approval of the department. Prerequisites: FIN 3300; MATH 1820; Senior or graduate standing, and consent of instructor. (A)

4375 International Business Finance (4)

Financial aspects of international business including international financial markets, foreign exchange management, foreign investment, multinational capital budgeting, working capital management, financing of international business including import-export financing and international banking. Not open to students with credit for FIN 6375. Prerequisite: FIN 3300.

4410 Financing Real Estate Operations (4)

Study of equity, mortgage, lease, sale and lease-back, and innovative methods of financing, including related tax effects. Prerequisites: FIN 3300 and either FIN 2400 or graduate standing. (F)

4415 Real Estate Investment Analysis and Advanced Appraisal (4)

Applications of investment analysis and appraisal theory to real estate management. Prerequisite: FIN 4410. (W)

4470 Seminar in Advanced Topics in Real Estate (4)

Advanced topics in real estate, including contemporary environmental, sociological, financial, economic, and political issues. Prerequisites: two of ECON 3500 and FIN 4410 and 4415. (Sp)

4900 Independent Study (1-4)

Management

2701 Legal Environment of Business (4) [CAN BUS 8]

Legal and institutional setting in which business operates; the nature, sources, functions, and processes of law and legal reasoning relating to contracts, agency, torts, partnerships, and corporations; government regulations and administrative law as they apply to the legal environment.

3100 Introduction to Quantitative Methods in Business (5)

A survey of linear programming, transportation models, CPM/PERT, deterministic inventory models, and decision analysis. Emphasis on problem formulation and applications. Prerequisites: MATH 1820 or 1305; STAT 2010; PC Software Proficiency satisfied. Four hrs. lect., 2 hrs. act. (A)

3110 Applications of Decision Making (4)

Hands-on experience with computer-assisted applications to decision making in such areas as artificial intelligence, business policy/planning, finance, marketing, personnel administration, production systems, and systems simulations. Prerequisite: MGMT 3100.

3600 Theories of Management (4)

Management is viewed as a process involving the utilization of human resources to accomplish organizational objectives. Critical analysis of descriptive and normative theories of formal organization, including a consideration of organization structure, communications, planning, and control. (A)

3610 Human Resources Management (4)

Fundamentals of strategic human resource management from the perspective of human resources professionals and general managers. Focus on how firms use human resource functions, such as recruitment and selection, training and development, performance management, compensation and benefits, to gain a competitive advantage. Prerequisite: MGMT 3600.

3612 Topics in Human Resources Management and/or Industrial Relations (4)

Current topics in human resources management and/or industrial relations selected by the instructor. May be repeated for credit with the approval of the department. Prerequisite: junior or higher standing.

3614 Organizational Behavior (4)

Current theory and research of individual and small group behavior in the organization. Prerequisites: PSYC 1000; MGMT 3600. (A)

3616 Human Resources Evaluation (4)

Procedures in selecting, placing, and evaluating employees. Topics include interviews, ability and psychological tests, innovative assessment methods, and organizational use of testing specialists and services. Prerequisites: PSYC 1000; STAT 2010; MGMT 3600.

3620 Introduction to Production and Operations Management (4)

Production and operations management in manufacturing and service enterprises; topics include: MRP II, inventory control, quality control, production planning/forecasting, productivity studies, international operations, equipment replacement, and quantitative methods and computer software applications. Prerequisites: ECON 3551 and MGMT 3100.

3624 Fundamentals of Purchasing and Materials Management (4)

The major topics important to the functions of the purchasing department, including purchasing, quality control, sources, prices, negotiation, inventory management, value analysis, capital equipment procurement, and make or buy calculations. (W)

3626 Total Quality Management (4)

Elements of total quality management, methods of and techniques in quality assurance, statistical process control and acceptance sampling. Emphasis on decision making and applications in quality improvement. Prerequisite: STAT 2010.

3645 Logistics Management (4)

Analysis of physical distribution. Methods of logistics analysis and planning. Prerequisite: MGMT 3600.

3680 Industrial Relations (4)

The study of labor-management relations: the labor force, labor law, collective bargaining, grievance procedures, and the development of industrial relations policy. (A)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Units not applicable to options or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. CR/NC grading only. (A)

4500 Business, Government, and Society (4)

The relationships between business managers and the social, economic, and political environment within which they operate; business ethics, antitrust policy, social responsibility, and consumer protection. Prerequisites: ECON 3005 and either 3551 or 6051. (A)

4615 Compensation and Benefits (4)

Wage and salary administration, wage and hour law, and employee benefits. Prerequisite: MGMT 3610.

4618 Human Resources Training and Development (4)

Systems approach to human resources training and development. Topics include needs assessments, learning theories, instructional design, training methodologies, presentation techniques, and program evaluation. Students will design and present sample training and development programs. Prerequisite: MGMT 3600; MGMT 3610 is recommended.

4625 Management of Purchasing and Materials Organizations (4)

Seminar on management of purchasing and materials organizations. Topics include: planning, policies, organization design, control, automation, buying for institutions, and government procurement. Prerequisites: MGMT 3600 and 3624.

4640 Advanced Operations Management (4)

Detailed study of selected techniques used in materials, production, and operations management applied to manufacturing and service enterprises in both private and public sectors. Activities include case studies, computer simulation, plant tour, and presentations by industry representatives. Prerequisite: ECON 3552 Introduction to Production Economics, or MGMT 3620.

4650 Seminar in Strategic Business Management (4)

Capstone course that takes a top management perspective and integrates the functional disciplines into decision-making. Emphasis on evaluating complex business situations, integrating theory with practice, and presenting comprehensive strategic business plans. Prerequisites: FIN 3300; MGMT 3600, 4500; MKTG 3401. Restricted to seniors.

4670 Multinational Business (4)

A study of the leading technical, environmental, and management features peculiar to the operation of the U.S. firms in foreign countries. Prerequisites: MGMT 3600, MKTG 3401. (A)

4675 International Human Resources Management (4)

Seminar on how multinational firms use human resource functions, such as recruitment and selection, training and development, performance appraisal, compensation and benefits, to compete internationally. Focus on international and comparative labor-management relations and management of multicultural teams. Prerequisite: MGMT 3680 or consent of instructor; MGMT 3610 and 4670 are recommended.

4680 Collective Bargaining and Labor Law (4)

Seminar involving analysis of provisions of U.S. labor laws and collective bargaining: strategy and tactics; impasse resolution; contract administration; and grievance arbitration. Emphasis on private industry; some treatment of public employment. Prerequisites: MGMT 3680 or ECON 3685.

4683 Research in Labor Relations (4)

Seminar on application of research methods to the preparation for collective bargaining and negotiating union-management agreements. Students will design and conduct a labor-relations research team project. Prerequisites: MGMT 3600, 3680.

4701 Law Under the Uniform Commercial Code and Selected Topics (4)

Emphasis on applications of legal principles and reasoning. Includes sales law, negotiable instruments, secured transactions, securities regulations, professional liability, bankruptcy law, trusts and estates, and property law. Prerequisite: MGMT 2701 or equivalent.

4900 Independent Study (1-4)**Marketing****2485 Establishing and Managing a Small Business (4)**

The fundamentals of establishing and operating a small business. Not open for credit to majors in Business Administration or Economics. Prerequisite: ACCT 2210 or 2251 or consent of instructor. (W)

3401 Introduction to Marketing Management (4)

A marketing management study of the major internal and external variables in the design of a marketing program. Recommended prerequisite or concurrent enrollment: ECON 2301. (A)

3410 Advertising Management (4)

Managing the firm's advertising function: defining the market; integrating advertising into the marketing mix; setting goals and budgets; selecting media; planning, scheduling, and controlling advertising campaigns; research applications; societal evaluation and regulation. Prerequisite or concurrent: MKTG 3401. (F,W)

3414 Marketing in Non-Profit Organizations (4)

Identifying market demands in non-profit organizations by formulating mission statements, raising funds, and developing consumer, volunteer, board, community and inter-agency relations. Survey of tax structure, incorporation procedures, government reporting, and service evaluation. Student project. Prerequisite: MKTG 3401 or consent of instructor.

3420 Sales Analysis and Sales Management (4)

Analytical problems of selling goods and services; management of the sales function. Prerequisite or concurrent: MKTG 3401. (F, Sp, Su)

3423 Personal Selling (4)

Theory and practice of personal selling in individual and small group settings. Skills development in product knowledge, customer analysis, listening, prospecting techniques, sales presentation, closing methods, and the place of selling within business. Student Project. Prerequisite: MKTG 3401 or consent of instructor.

3430 Retail Management (4)

Management problems and practices in retailing. Prerequisite or concurrent: MKTG 3401. (W)

3495 Business Communication (4)

Applications of logical and creative thinking, and oral and written communications in the administrative decision-making process in business organizations. Prerequisites: ENGL 1001, junior standing. Credit unavailable through challenge. Enrollment priority to Business Administration and Economics majors, then Business Administration minors. Fulfills the University Writing Skills requirement for students who began work on the present degree before Fall quarter, 1985. (A)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Units not applicable to options or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. CR/NC grading only. (A)

4071 Industrial Marketing (4)

Techniques of marketing capital goods and analysis of industrial markets, channels of distribution, promotion, pricing, and sales forces. Field observations and case discussion. Prerequisite: MKTG 3401.

4072 Services Marketing (4)

Marketing applications within service organizations such as health, finance, education, entertainment/hospitality, and professional service industries. Analysis of product development, customer satisfaction, customer service needs, service delivery, communication with publics and the hiring, training, and management of service personnel. Field observations and case discussion. Prerequisite: MKTG 3401.

4073 Products and Pricing (4)

The process of both consumer and industrial product development, based on marketing intelligence, product introduction, strategy and pricing throughout product life cycle. Field observation and case discussion. Prerequisite: MKTG 3401.

4400 Strategic Marketing Management (4)

Total marketing program perspective; short-run and long-run planning with its supporting research and data analysis, program controls, and post-program evaluation. Projects and cases. Prerequisites: MKTG 3495 or concurrent, Senior standing, Marketing Management Option with at least two option courses completed. Recommended: CIS 3060. (A)

4412 Media Planning (4)

Media choice related to advertising and promotion strategies; media data sources, syndicated services. Researching media for a specific product, structuring optimum media mixes, developing/managing media budgets; using computers and commercial computer services in deriving media schedules. Prerequisite: MKTG 3401.

4414 Promotion Management (4)

Management of marketing promotional functions including personal selling, sales promotions, advertising, and publicity/public relations. Comparison of promotions for profit/non-profit organizations, products/services, and consumer/industrial markets. Student project. prerequisite: MKTG 3401.

4415 Corporate Communications (4)

Development of organizational image campaigns by identifying corporate culture, corporate image, intraorganizational goals. Determining media strategies, tactics, and tools for lobbying, trade organization relations, press agency, publicity, internal communications, and public opinion research included in the context of social responsibility. Student project. Recommended prerequisites: MKTG 3401; MGMT 3600, 3680.

4417 Consumer Behavior (4)

Survey of theoretical foundations of consumer decision-making; in-depth analysis of contemporary factors influencing consumer behavior, including social, cultural, and psychological dimensions; extensive outside readings and case applications; student project required. Prerequisites: MKTG 3401 and PSYC 1000.

4422 Sales Training (4)

Sales training program development and practice; application of motivation theory to sales personnel; analysis of content of sales meetings, sales conferences, and employment and exit interviews. Student project. Recommended prerequisite: MKTG 3423.

4445 Seminar in Marketing Research (4)

Introduction to basic research procedures, project design, and interpretation and application of results as applied to marketing decisions. Group and/or individual projects. Prerequisites: MKTG 3401 and STAT 2010.

4450 Marketing Seminar (4)

Selected topics emphasizing the integration of marketing literature with current business practices through seminar discussions and individual field investigations. May be repeated for credit with approval of the Department. Prerequisites: MKTG 3401 and consent of instructor. (Sp)

4470 International Marketing (4)

Marketing management problems and techniques in international business. Prerequisite: MGMT 4670; prerequisite or concurrent: MKTG 3401.

4485 Establishing New Enterprises (4)

In-depth coverage of procedures for setting up new businesses and of problems confronting managers during the critical start-up period; extensive use of cases, situational analyses, and projects. Prerequisites: ACCT 3200; FIN 3300; MGMT 3600; MKTG 3401. Recommended: CIS 3060.

4490 Practicum in Small Business Management (4)

Student consultant teams assisting small businesses; responsibilities include reviewing performance; isolating problems; researching solutions; presenting oral analysis to class; preparing written reports for business. Prerequisites: ACCT 3200; ECON 3551; FIN 3300; MGMT 3100; MKTG 3401. Prerequisite/concurrent: MKTG 4495. Recommended: CIS 3060.

4900 Independent Study (1-4)

Telecommunications (Business Computer)

3276 Introduction to Telecommunications (4)

Application of data and voice communication techniques to business. Includes public and private networks, functions, design and standards. Role of local and wide area networks in the office environment. Laboratory component will apply concepts discussed in lectures. Prerequisite: CIS 3270 or CIS 3060.

3277 Regulatory Issues in Telecommunications Systems Management (4)

Public Policy, law, tariffs, and regulation relating to the telecommunications industry in the United States. Control of information movement across state lines. History, current state and emerging trends. Emphasis on impact of regulatory action on decision-making. Substantial use of case-study methods. Prerequisite: TC 3276.

3377 Telecommunications Standards (4)

Survey of telecommunications standards. Domestic and international standards organizations. Development and implementation of U.S. and international standards. Competitive impact of standards development and applications. Case studies. Prerequisite: TC 3276.

4265 Local Area Networks in Business (4)

Details of LAN hardware and software. Applications software relating to LAN in the business environment. Topics include LAN topologies, media access control, LAN operating systems, media selection and installation, client server concepts and system control and administration. Hands-on applications is an important component of the course. Prerequisite: TC 3276.

4477 Business Computing Environment (4)

Technical aspects of business computer systems, emphasizing relationships among computer architecture, systems software, and applications programs. Data representation and organization, machine and assembly language, structures, integrated circuits and program execution. Student projects. Prerequisites: TC 3276 and ability to program in a high-level language.

4877 Internship in Telecommunication (2)

Supervised work experience in a department-approved program with a company, such as a telecommunications firm or telecommunications department of a business, governmental or non-profit organization. Academic assignments integrated with off-campus paid or volunteer activities. CR/NC only. May be repeated for credit. Prerequisites: TC 3276; recommended: TC 3277 and 3377.

4900 Independent Study (1-4)

* Has a prerequisite not included in the option.

** Business Administration majors should consider taking PSYC 1100 to satisfy the Critical Thinking Requirement after completing the prerequisite.

*** Not more than 12 units of VITA coursework can be counted toward undergraduate degree requirements.

**** The CIS 3060 requirement is waived for students completing both CIS 3270 and 3281 or both CIS 3281 and 3282.

California Studies

- [PROGRAM DESCRIPTION](#)
- [MINOR IN CALIFORNIA STUDIES](#)

CALIFORNIA STUDIES

Department of Political Science
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 4092
Phone: (510) 885-3221

Professors:

Herbert Eder, James S. Fay (Director), Sherman L. Lewis, Richard J. Orsi

Associate Professors:

David J. Larson, Scott Stine

PROGRAM DESCRIPTION

The minor in California Studies offers coursework on California with emphasis on the state's history, government, geography, ethnic diversity, and environment. Such a focus on California's diverse and sizable population, economic development, and geo-social regions will better prepare graduates to address the ongoing economic, demographic, and social evolution challenging California and its political institutions.

MINOR IN CALIFORNIA STUDIES

The minor consists of 28 units. At least 18 of these units must be taken outside the student's major.

I. Core Requirements (20 units)

1. HIST 3500 History of California (4)
2. POSC 3120 State and Local Politics and Government (4) or POSC 3150 Politics of California (4) or POSC 3151 Contemporary California (4)
3. GEOG 3505 Geography of California (4)
4. One course (4 units) on the California ethnic experience, selected from:

ANTH 3505 Indians of California (4); E S 3210 Latina Women in the U.S. (4), 3805 Mexican and Latin American Immigration (4), 4290 Latino Politics and Public Policy (4); HIST 3515 The Mexican American and the American Southwest (4); MCOM 3400 The Ethnic Media in America (4); SOC 3416* Sociology

of the Mexican-American Family (4)

5. One course (4 units) on California environmental and scientific perspectives, selected from:

ANTH 4240* Data Analysis in Archeology (4), 4250* Field Course in Archeology (5); BIOL 3015* Natural History of Marine Organisms (4), 3031* Nature Study (4), 3210* Woody Plants of California (4), 4200* Plant Taxonomy (4); GEOG 4350* Water Resources and Management (4); HIST 3505 California Environmental History (4); POSC 4171 Public Policy and the Environment (4)

II. Electives (8 units)

Any course listed above which was not taken in the core, or any course from the following list:

ECON 3500* Regional and Urban Economics: Survey (4); GEOG 3400* Field Geography of the San Francisco Bay Region (4), 3525 Geography of California Wine Country (3), 3526 Field Geography of California Wine Country (1); GEOL 3100 Geology of the Western National Parks (4); HIST 3503 History of the San Francisco Bay Area (4), 4032 Introduction to Public History (4); POSC 3113 Political Internship (4), 3130 Urban Politics (4), 3310 Political Parties and Campaigning (4)

Any Cooperative Education course with substantial content unique to California and approved in advance by a California Studies advisor.

* Has a prerequisite which is not applicable to the program.

Chemistry [CHEM]

- [PROGRAM DESCRIPTION](#)
- [CAREER OPPORTUNITIES](#)
- [FEATURES](#)
- [MAJOR REQUIREMENTS ■ B.S.](#)
- [MAJOR REQUIREMENTS ■ B.A.](#)
- [OPTION IN BIOCHEMISTRY WITH B.A. DEGREE](#)
- [MINOR REQUIREMENTS](#)
- [PHYSICAL SCIENCE OPTION: LIBERAL STUDIES](#)
- [COURSES](#)

CHEMISTRY

Department of Chemistry
School of Science
Office: North Science 431
Phone: (510) 885-3452

Professor Emeritus:

Donald L. Peterson

Professors:

Richard E. Bozak, Kevin D. Cadogan, Leroy Chauffe (Chair), Edward E. Genser, Michael K. Leung, Richard T. Luibrand, Richard S. Monson, Charles T. Perrino, Larry G. Scheve, John C. Shelton

Associate Professor:

Ann A. McPartland

PROGRAM DESCRIPTION

Chemistry, as a scientific discipline, touches all our lives in a daily manner. Chemical research and teaching affect directly and indirectly all that takes place in medicine, agriculture, nutrition and the environment. For this reason, chemistry students at Cal State Hayward take courses in Mathematics, Physics, Biology and Geology just to name a few important disciplines. The field of Chemistry is a specialized one, however, and eventually students must focus on those primary courses in upper division chemistry which prepare them for graduate school and for employment opportunities. The areas of biochemistry, analytical, inorganic, organic, and physical chemistry influence the many aspects of our scientific community and are presented at the undergraduate level at Cal State Hayward. Chemistry is a central science which no student of science can avoid and, at the same time, chemistry offers the student who wishes to specialize in it the opportunity to understand and make a contribution to most any scientific endeavor.

CAREER OPPORTUNITIES

Analytical Chemist ■ Biotechnologist ■ Biochemist ■ Biophysicist ■ Chemical Engineer ■ Geochemist ■ Dietitian ■ Food and Drug Inspector ■ Geophysicist ■ Health Physicist ■ Nuclear Engineer ■ Organic Chemist ■ Perfumer ■ Petrologist ■ Pollution Control Technician ■ Public Health Educator ■ Quality Control Technician ■ Water Purification Chemist

FEATURES

The Department of Chemistry employs highly qualified and experienced technical staff to assist faculty and students in their course and research experiences.

The department also features well-equipped laboratory facilities including computers for operating programs designed to assist students in classes, to increase their computational capabilities, and to allow for remote searching of chemical literature.

The B.S. degree in Chemistry is certified by the American Chemical Society.

The university offers Cooperative Education coursework which provides chemically related employment opportunities and students may, with department approval, obtain credit for this work.

The Alchemist Club, a student affiliate of the American Chemical Society, is available to students majoring in Chemistry. They are active in many aspects of the department and provide free peer tutoring, participate in fund-raising for special projects, and take interesting field trips to local industries.

MAJOR REQUIREMENTS - B.S.

The Bachelor of Science degree program is designed to prepare students for graduate school in Chemistry and related fields as well as for industrial employment which involves research or a high degree of technical proficiency. It is intended for students desiring the highest degree of specialization. Since requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 110 units; the B.S. degree requires a total of 186 units.

I. Lower Division (55 units)

CHEM 1101, 1102, 1103 General Chemistry (15)

CHEM 2200 Quantitative Analysis (5)

MATH 1304, 1305, 2304, 2101 Calculus I, II, III, and Elements of Linear Algebra (16)

CS 1020 Introduction to Computers or CS 1160 Introduction to Computer Science and Programming Methods (4)

PHYS 1001, 1002, 1003 General Physics (15)

II. Upper Division (55 units)

CHEM 3301, 3302, 3303 Organic Chemistry (15)

CHEM 3511, 3512, 3513 Physical Chem. Lecture (9)

CHEM 3531, 3532 Physical Chemistry Laboratory (4)

CHEM 4161, 4162 Advanced Inorganic Chemistry (6)

CHEM 4180 Inorganic Chemistry Laboratory (2)

CHEM 4240 Instrumental Methods of Analysis (4)

Advanced Chemistry Electives (15 units)*

Including:

- A. At least one course chosen from the following: 4330, 4430, 4810.
- B. At least two courses chosen from the following: 4311, 4340, 4411, 4412, 4521, 4601, 4602.
- C. Additional courses chosen from the above list of electives or from the following: 3400, 3401, 3405, 4110, 4310, 4420, 4700, 4900. (No more than four units of 4810 and 4900 combined may be applied to the Advanced Chemistry Electives for the B.S. degree major.) Graduate courses (numbered 6000 or above) may be taken to satisfy this requirement.

III. Recommended Electives

At least one year's study of a foreign language is strongly recommended, although it is no longer required. Students contemplating graduate study later, particularly leading to the Ph.D. degree, are advised that chemistry departments at many universities require a reading knowledge of scientific German or Russian. Further, the ability to translate German chemical literature is particularly useful in some areas of specialization within chemistry. Courses in the Modern Languages and Literatures department may be applied to the G.E. requirements in Area C.

Summary of the B.S. program

The major: 110 units

General Education requirements (not satisfied by the major program): 60 units

Free electives: 16 units

Total: 186 units

MAJOR REQUIREMENTS - B.A.

The Bachelor Arts degree, including the Option in Biochemistry, is intended for students who would like to use their knowledge of chemistry as a starting point for a career in medicine, molecular biology, dentistry, teaching, environmental remediation, law, or business. Graduate degrees in these fields follow naturally from the undergraduate training required of the chemistry student. The major consists of 84 units; the B.A. degree requires a total of 186 units.

I. Lower Division (48 units)

CHEM 1101, 1102, 1103 General Chemistry (15)

CHEM 2200 Quantitative Analysis (5)

MATH 1304, 1305, 2304 Calculus I, II, III (12)

CS 1020 Introduction to Computers, or CS 1160 Introduction to Computer Science and Programming Methods (4)

PHYS 2701, 2702, 2703 Introductory Physics (12)

II. Upper Division (36 units)

CHEM 3301, 3302, 3303 Organic Chemistry (15)

CHEM 3511, 3512, 3513 Physical Chemistry Lecture (9)

Upper Division Chemistry Electives (12 units) including all upper-division courses except 3500 Introduction to Physical Chemistry (no more than two units of 4900 and 4810 combined may be applied to the Upper Division Chemistry Electives for the B.A. degree). Graduate courses (numbered 6000 and above) may be taken in satisfaction of this requirement.

Summary of the B.A. program

The major: 86 units

General Education requirements (not satisfied by the major program): 60 units

Free electives: 42 units

Total: 186 units

Sample Program

Fall	Winter	Spring
<i>Freshman Year</i>		
CHEM 1101** MATH 1304 GE	CHEM 1102 MATH 1305 GE	CHEM 1103 MATH 2304 GE
<i>Sophomore Year</i>		
CHEM 3301** PHYS*** CHEM 2200 GE	CHEM 3302 PHYS*** CS GE	CHEM 3303 PHYS*** MATH 2101**** GE
<i>Junior Year</i>		
CHEM 3511 CHEM 3531**** GE	CHEM 3512 CHEM 3532**** GE	CHEM 3513 CHEM Elective GE
<i>Senior Year</i>		
CHEM 4161**** CHEM Elective GE	CHEM 4162**** CHEM 4240**** GE	CHEM 4180**** CHEM Elective GE

OPTION IN BIOCHEMISTRY WITH B.A. DEGREE

The option in Biochemistry is a program that allows students to concentrate on an important subdivision of chemical-biological studies. It prepares students for graduate work in Biochemistry and related fields such as molecular biology and biotechnology. It is recognized as being one of the most useful and popular programs for students who intend to fulfill premedical or predoctoral requirements. The major with an option in Biochemistry consists of 109-114 units; the B.A. degree requires a total of 186 units.

I. Lower Division (63 units)

CHEM 1101, 1102, 1103 General Chemistry (15)

CHEM 2200 Quantitative Analysis (5)

MATH 1304, 1305, 2304 Calculus I, II, III (12)

CS 1020 Introduction to Computers, or CS 1160 Introduction to Computer Science and Programming Methods (4)

PHYS 2701, 2702, 2703 Introductory Physics (12)

BIOL 1301, 1302, 1303 Foundations of Biological Science (15)

II. Upper Division (46-51 units)

CHEM 3301, 3302, 3303 Organic Chemistry (15)

CHEM 3511, 3512, 3513 Physical Chemistry Lecture (9)

CHEM 4411, 4412 General Biochemistry (8)

CHEM 4420 Advanced Biochemistry (4)

CHEM 4430 General Biochemistry Laboratory (4)

Two courses (6-11 units) in Biology chosen from the following: BIOL 3120 (4), 3140 (4), 3150 (4), 3405 (6), 4120 (4), 4170 (5), 4180 (4), 4430 (5), 4440 (3), 4505 (4), 4510 (3)

Summary of the B.A. program, Option in Biochemistry

The major: 109-114 units

General Education requirements (not satisfied by the major program): 56 units

Free electives: 16-21 units

Total: 186 units

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

Students majoring in other fields may wish to complete a coherent pattern of work in chemistry for the purpose of expanding their employment and educational opportunities. Students successfully completing this program will have the fact entered on their university records. The minor consists of 38-39 units.

CHEM 1101, 1102, 1103 General Chemistry (15)

CHEM 2200 Quantitative Analysis (5)

CHEM 3301, 3302, 3303 Organic Chemistry (15)

CHEM 3500 Introductory Physical Chemistry or

CHEM 3511 Physical Chemistry Lecture (3 or 4)

PHYSICAL SCIENCE OPTION: LIBERAL STUDIES

See the [Liberal Studies chapter](#) in this catalog for a description of this option which includes Chemistry.

COURSES

Courses for Non-Science Majors

1000 Popular Topics in Chemistry (4)

Nonmathematical discussions of subjects as: energy in the universe and the cell, evolution, nutrition, chemical senses, drugs, hormones, synthetics, and pollution. Designed as a general education course for non-science majors. (F, Sp)

1100 Introduction to College Chemistry (5)

Elementary principles of chemistry: measurement, properties of matter, chemical symbols and formulas, chemical equations, stoichiometry, atomic structure, gas laws, solutions. Prerequisite: Satisfaction of the ELM exam requirement . Three hrs. lect., 6 hrs. lab., disc. (F, Su)

3010 The Making of Wine (4)

The history, chemistry and technology of wine making. Production of standard types of wine from grape varieties. Laboratory illustrates chemical principles as applied to wine making. Not an elective for the chemistry major. Three hrs. lect., 3 hrs. lab. (Sp)

Courses for Chemistry and Other Science Majors

1101, 1102, 1103 General Chemistry (5 each)

[1101: CAN CHEM 1; 1102: CAN CHEM 3; 1103: CAN CHEM 5]

[CAN CHEM SEQ A=CAN CHEM 1+3+5 or CAN CHEM 2+4]

Fundamental principles of chemistry, chemical structure, bonding, equilibrium, dynamics, and reactions. Laboratory includes study of chemical and physical behavior of elements and compounds, and qualitative and quantitative analysis. Prerequisites: CHEM 1100, one year high school chemistry, two years high school mathematics, and one year high school physics are recommended. CHEM 1101 is prerequisite to CHEM 1102; CHEM 1102 is prerequisite to CHEM 1103. Three hrs. lect., 6 hrs. lab. each. (1101: F, W; 1102: W, Sp; 1103: Sp, Su)

1601, 1602, 1603 Basic Chemistry for the Health Sciences (4 each)

A one-year, terminal sequence in chemistry for students preparing for careers in health-related sciences including nursing. CHEM 1601: basic inorganic chemistry; CHEM 1602: basic organic chemistry; CHEM 1603: basic biochemistry. Does not satisfy chemistry requirement for physical science, geology, physics or biology B.S. majors. Prerequisite: high school algebra. CHEM 1601 is prerequisite to CHEM 1602; CHEM 1602 is prerequisite to CHEM 1603. Three hrs. lect., 3 hrs. lab. each. (1601: F; 1602: W; 1603: Sp)

2200 Quantitative Analysis (5)

Elementary gravimetric and volumetric analysis; instrumental methods of analysis. Prerequisite: CHEM. 1103. Three hrs. lect., 6 hrs. lab. (F, Tent. Su)

2301, 2302 Survey of Organic Chemistry (4 each)

Classes of organic compounds and reactions emphasizing subjects in biological sciences. For non-chemistry majors not planning advanced work in organic chemistry. Prerequisite: CHEM 1103, CHEM 2301 is prerequisite to CHEM 2302. CHEM 2301, 4 hrs. lect.; CHEM 2302, 2 hrs. lect., 6 hrs. lab. (2301: W; 2302: Sp)

3301, 3302, 3303 Organic Chemistry (5 each)

An introduction to the chemistry of aliphatic, aromatic, and heterocyclic compounds emphasizing basic principles. Laboratory work in basic techniques and synthesis. Prerequisite: CHEM 1103; CHEM 3301 is prerequisite to CHEM 3302; CHEM 3302 is prerequisite to CHEM 3303. Three hrs. lect., 6 hrs. lab. each. (3301: F, W; 3302: W, Sp; 3303: Sp, Su)

3400 Introductory Biochemistry (4)

A survey of biochemistry emphasizing the structure and metabolism of biomolecules such as amino acids, proteins, carbohydrates, lipids and nucleic acids. Prerequisite: CHEM 2302 or 3303. (F)

3401 Introductory Biochemistry Laboratory (2)

Introduction to laboratory techniques in biochemistry. Prerequisite: CHEM 3400 (may be taken concurrently) or CHEM 4411. Six hrs. lab. (F)

3405 Clinical Chemistry (5)

Biochemical processes associated with disease; principles underlying the use of laboratory tests to monitor

human health; quantitation of body fluid constituents such as enzymes, carbohydrates, cholesterol, hormones and other metabolites. Not open to students who have taken CHEM 3922. Prerequisites: CHEM 3400 and CHEM 3401. Three hrs. lect., 6 hrs. lab. (Alt. W)

3500 Introductory Physical Chemistry (4)

An introductory study of the fundamental physical laws, theoretical principles and mathematical relations in chemistry. Prerequisites: CHEM 1103 and PHYS 2703. (Alt. Y)

3511, 3512, 3513 Physical Chemistry Lecture (3 each)

Fundamental physical laws, theoretical principles and mathematical relations of chemistry. Prerequisites: CHEM 2200, MATH 2304 and PHYS 1003 (or concurrent) or PHYS 2703; CHEM 3511 is prerequisite to CHEM 3512; CHEM 3512 is prerequisite to CHEM 3513. (3511: F; 3512: W; 3513: Sp)

3531, 3532 Physical Chemistry Laboratory (2 each)

Experience in the measurement of physicochemical properties, digital computer analysis of experimental data, and report writing. Prerequisites: CS 1020 or CS 1160 (or concurrent); CHEM 3511 (or concurrent); CHEM 3531 is prerequisite to CHEM 3532. Six hrs. lab. each. (3531: F; 3532: W)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. No units may be counted toward the Chemistry major or minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity; completion of CHEM 2200. (A)

4110 Introduction to Geochemistry (5)

(See [GEOL 4110](#) for course description.)

4161, 4162 Advanced Inorganic Chemistry (3 each)

The bonding, structure and reactivity of inorganic compounds. CHEM 4162 emphasizes the structure and chemistry of coordination compounds and complex ions, including the application of group theory to spectral analysis. Prerequisites: CHEM 3513 and CHEM 3303 or CHEM 2302. CHEM 4161 is prerequisite to CHEM 4162. (4161: F; 4162: W)

4180 Inorganic Chemistry Laboratory (2)

Laboratory experience in the preparation and characterization of selected inorganic compounds. Prerequisite: CHEM 3532 and CHEM 4162. Six hrs. lab. (Sp)

4240 Instrumental Methods of Analysis (4)

Principles of operation and application of instrumental methods including visible/ultraviolet and infrared spectrophotometry, atomic emission and absorption, nuclear magnetic resonance and mass spectrometry, gas-liquid and high-performance liquid chromatography, electrochemistry, and data acquisition and instrument control using microcomputers. Prerequisites: CHEM 3512 or concurrent. Two hrs. lect., 6 hrs. lab. (W)

4310 Qualitative Organic Analysis (4)

Identification of unknown organic compounds with emphasis on the use of microtechniques; discussion of modern qualitative and instrumental methods, with special regard to the identification of natural products. Prerequisite: CHEM 3303. One hr. lect., 9 hrs. lab. (Alt. Y)

4311 Advanced Organic Chemistry (4)

Mechanistic approaches to synthetic studies; chemistry of carbonyl compounds; chemistry of heterocyclic and polycyclic compounds with emphasis on those of natural origin or biological interest. Prerequisite: CHEM 3303. (F)

4330 Synthetic Organic Methods (3)

The theory and techniques of organic synthesis. Problems on methods of separation, purification, and verification

by spectroscopic means. Prerequisite: CHEM 3303 or consent of instructor. Nine hrs. lab. (Alt. Y)

4340 Physical Organic Chemistry (4)

Theoretical aspects of organic chemistry based on modern concepts; chemical and physical properties of organic compounds, mechanisms of organic reactions. Prerequisites: CHEM 3303 and CHEM 3512. (Sp)

4411, 4412 General Biochemistry (4 each)

Selected topics in the chemistry and metabolism of biologically important compounds; investigation of intermediate reactions and cycles involved in metabolism; thermodynamics and kinetics of enzyme-catalyzed reactions. Prerequisites: CHEM 2200 and CHEM 3303; CHEM 3511 or 3500 or concurrent enrollment in either. CHEM 4411 is prerequisite to CHEM 4412. (4411: F; 4412: W)

4420 Advanced Biochemistry (4)

Topics in biochemistry including the chemistry of protein and amino acid metabolism and the chemistry of nucleotides and nucleic acids, with emphasis on the latter. Prerequisites: CHEM 4412. (Sp)

4430 General Biochemistry Laboratory (4)

Laboratory techniques in biochemistry. Intended to supplement General Biochemistry, CHEM 4411 and CHEM 4412. Prerequisites: CHEM 4412 (or concurrent). Two hrs. lect., 6 hrs. lab. (W, Sp)

4521 Elements of Chemical Thermodynamics (4)

Selected topics in classical and statistical thermodynamics, with emphasis on thermochemical calculations. Prerequisite: CHEM 3513. (Tent. F)

4601 Environmental Chemistry I (4)

A study of the environmental aspects of chemistry: aqueous multiple equilibria, pH effects of solubility, CO₂ systems, inorganic pollutants in water and soils. Prerequisites: CHEM 1103 and CHEM 2302. Three hrs. lect., 3 hrs. lab. (F)

4602 Environmental Chemistry II (4)

Additional environmental aspects of chemistry: organic pollutants in the environment, photochemical smog, hazardous waste treatment, toxicology, environmental chemical analysis. Prerequisite: CHEM 4601. Three hrs. lect., 3 hrs. lab. (W)

4700 Survey of Chemical Literature (2)

Systematic introduction to the use of the chemical literature. Prerequisites: two years of chemistry. May be taken CR/NC by majors. (Sp)

4810 Undergraduate Research (2)

Independent research under the guidance of a member of the Chemistry Department faculty. Prerequisites: CHEM 3532 and consent of instructor. May be repeated once for credit. Students should consult with faculty members to determine specific research opportunities.

4900 Independent Study (1-4)

* At least one Advanced Chemistry Elective must have a physical chemistry prerequisite (or corequisite). These include 4180, 4340, 4411, 4521 and 4810.

** Sequence may be taken W, Sp, Su Quarters.

*** Differs for B.A. and B.S.

**** Not required for B.A.

Communication Skills

- [PROGRAM DESCRIPTION](#)
- [COMMUNICATION SKILLS MINOR](#)
- [ORGANIZATIONAL COMMUNICATION CERTIFICATE](#)

COMMUNICATION SKILLS

Department of Mass Communication
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 3011
Phone: (510) 885-3292. FAX: (510) 885-4099

School of Arts, Letters, and Social Sciences:

Thomas McCoy (Mass Communication), E. J. Murphy (English), Daniel S. Prentice (Speech Communication)

School of Business and Economics:

Eric Soares (Marketing)

School of Education:

Margaret C. Needels (Teacher Education)

School of Science:

Michael E. Patch (Psychology)

PROGRAM DESCRIPTION

The minor and the certificate program in communication skills encourage students to take additional coursework in this area. Communication skills are essential for effective interaction in both work and social settings. Recruiters and placement officers for all types of organizations and all types of positions rank oral and written communication skills high among the qualities that they look for in job candidates.

COMMUNICATION SKILLS MINOR

The Communication Skills Minor provides substantial study and training in oral and written communication and interpersonal relationships beyond the requirements for General Education. There are 12 units of prerequisites to the minor. The courses used to fulfill these prerequisites may also be used to satisfy the Communication in the English Language requirement (Area A) for General Education. There are 32 units in the minor. At least 16 units of the minor must be upper-division, and at least 18 of the 32 must have department prefixes from outside the student's major.

I. Prerequisites to the Minor (12 units)

(These courses satisfy the Communication in the English Language requirement for General Education.)

ENGL 1001 Expository Writing (4)

SPCH 1000 Principles of Speech Communication (4)
PHIL 1000 Workshop in Clear Thinking or PHIL 1001 Introduction to Logic (4)

II. Requirements for the Minor (32 units):

Complete the following courses (12 units):

ENGL 3005 Study of Language (4)
MCOM 2200 Introduction to Journalistic Writing (4)
SPCH 1004 Interpersonal Communication (4)

Select two courses from Group A, and one course from Group B, and two courses from Group C (20 units):

Group A. Written Presentation (8 units)

ENGL 2005 Grammar for Writers (4), 3003 Discursive Writing (4), 3020* Advanced Expository Writing (4); MKTG 4495 Administrative Communication (4); MCOM 3010 News Reporting and Writing (4), MCOM 3310* Editing (4), MCOM 3410 Feature Writing (4)

Group B. Oral Presentation (4 units)

SPCH 3411 Argumentation and Debate (4), 3510 Small Group Communication (4), 3515 Persuasion (4), 4350 Advanced Public Speaking (4)

Group C. Organizational Behavior and Small Group Interaction (8 units)

HDEV 3800 Human Development and Interaction (4); MGMT 3600 Theories of Management (4), 3614* Organizational Behavior (4); PSYC 3500* Social Psychology (4) (PSYC 3500 and SOC 3500 cannot both be counted in the minor), 3510* Attitudes and Opinions (4), 3520* Interpersonal Processes (4), 3540* Groups and Organizations (4); PUAD 4830 Organization Theory and Human Behavior (4); SOC 3500* Social Psychology (4) (PSYC 3500 and SOC 3500 cannot both be counted in the minor), 3520 Sociology of Minority Groups (4); SPCH 3520 Nonverbal Communication (4), 4810 Communication Theory (4), 4830 Intercultural Communication (4), 4840 Organizational Communication (4)

ORGANIZATIONAL COMMUNICATION CERTIFICATE

The Certificate in Organizational Communication consists of 28 units and is for individuals who already have good basic communication skills and want to perfect and hone those skills. In addition it offers the student a set of courses that are strongly career oriented.

The certificate is very relevant to individuals who are already in communication-related career positions and desire both a higher level of communication skills and the accompanying certificate as vehicles to advancement. It is also particularly appropriate for two other groups. The first includes those who are on the fringe of a communication-related career path and want better acceptance as specific career individuals. The second includes those who are not now employed and see the completion of a particular program of study from this set of courses as a certification to potential employers not only of a higher level of communication skills achievement but also of their own seriousness of purpose and commitment to a specific career area.

A. Required Courses (20 units):

ENGL 3003 Discursive Writing (4)
MGMT 3600 Theories of Management (4)
MCOM 4520 Advertising Theory and Practice (4)
SPCH 3510 Small Group Communication (4)
SPCH 4840 Organizational Communication(4)

B. Select two courses (8 units) from the following list:

MGMT 3614** Organizational Behavior (4), 3680 Industrial Relations (4); MKTG 3401 Introduction to

Marketing Management (4), 3410 Advertising Management (4), 3420 Sales Analysis and Sales Management (4), 4414 Promotion Management (4), 4422 Sales Training (4); MCOM 3010** News Reporting and Writing (4), MCOM 3310** Editing (4), MCOM 4510 Public Relations Theory and Practice (4); PUAD 4830 Organization Theory and Human Behavior (4); SPCH 3515 Persuasion (4), 4830 Intercultural Communication (4)

Note: Students who have completed at other schools the approved equivalent of any of the specifically required five courses should make additional selections from the electives grouping in order to offset those units already completed outside Cal State Hayward. Students who find themselves to be limited in their selection from the elective group due to the number of approved equivalent courses completed at other schools should consult with an advisor for this certificate in order to identify appropriate substitutions to meet the required 28 units in residence for the certificate.

* Has one or more prerequisites not required in the minor.

** Has prerequisite(s) not included in the program or G.E.

Computer Science [CS]

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- [CAREER POSSIBILITIES](#)
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- [MAJOR REQUIREMENTS ■ B.S.](#)
- [MINOR REQUIREMENTS](#)
- [UNDERGRADUATE COURSES](#)

COMPUTER SCIENCE



Department of Mathematics and Computer Science

School of Science

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John W. Summers

Professors:

James S. Daley, Peter A. Fowler, Edward L. Keller (Chair), Gary E. Lippman, Massoud Malek, Charles M. Marut, Russell L. Merris, Christopher L. Morgan, William R. Nico (Computer Science Coordinator), Edna E. Reiter (Associate Chair), Istvan Simon, Bruce E. Trumbo, Marvin R. Winzenread, Donald L. Wolitzer, Ytha Y. Yu

Associate Professors:

Chi Fai Ho, Dan Jurca, Farzan Roohparvar, Stuart Smith, Hwa Tang, William Thibault

Assistant Professors:

Kevin E. Callahan, Julie S. Glass, Kathleen Hann, Chung-Hsing OuYang

Lecturers:

Paula Albert, Jack A. Carter, Michael A. Contino, Dorothy E. Fujimura, Jean Simutis

PROGRAM DESCRIPTION

Programs in Computer Science at Cal State Hayward are designed to prepare students for employment or for advanced study in computer science. The student's course of study will provide a solid foundation of theoretical knowledge as well as experience with practical applications in hardware and software. Computer Science is the study of computation and of methods for addressing, processing, and storing information. It encompasses a broad perspective that includes what a computer is, its uses and applications, and theoretical approaches to what can be computed. The core curriculum in Computer Science, involving a blend of theory and practice, offers opportunities for problem solving in many areas and provides experience with a variety of computers, computer languages, and software packages. A typical student's experiences can include scientific programming, language design and implementation, file handling and database design, artificial intelligence, hardware design, and graphic implementations ranging from interface

design to artistic presentations. A strong mathematical background is important in Computer Science. High school students who are interested in computer science should take as much mathematics as possible, particularly algebra, trigonometry, and precalculus. Community college students who are planning to transfer to Cal State Hayward should take the calculus sequence, linear algebra, discrete structures, a sequence of courses in some programming language (such as C++, Pascal, C), and a course in computer organization and assembly language.

CAREER POSSIBILITIES

Computer Network Support Employee ■ Computer Operations Manager ■ Computer Sales Representative ■ Customer Support Employee ■ Database Applications Program Analyst or Designer ■ Graphics Specialist ■ Programmer or Administrator ■ Programming Team Member, Specializing in Design, Testing, or Documentation ■ Scientific Applications Programmer ■ Software Engineer Systems Analyst ■ Systems Manager or Programmer ■ Technical Writer ■ Teacher/Professor

FEATURES

Computer Science students at Cal State Hayward have access to some of the most modern and powerful computer equipment available. The campus provides a network backbone, including connection to the Internet, an IBM 9377, and hundreds of micro-computers. The department also has equipment of its own, including a network of Unix workstations (mostly SUN SPARCstations), a Macintosh classroom, and two classrooms equipped for computerized demonstrations. All mainframes and microcomputers are accessible from terminals located throughout campus and by modem off campus. Several computer labs on campus offer terminal access and assistance with problems. Cal State Hayward has an active Computing Club which hosts a variety of events and projects.

Each year the department offers a number of scholarships covering a portion of fees for the subsequent year. Applications may be obtained from the department during Winter. A booklet containing a number of sample schedules, as well as further information about the computer science major, is available in the Mathematics/Computer Science Student Service Center (North Science 337).

MAJOR REQUIREMENTS ■ B.S.

Many students pursue a double major in Mathematics and Computer Science, since a number of courses are common to both majors and can be double-counted. Another popular combination is a major in computer science and a minor in mathematics.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 80 units; the B.S. degree requires a total of 186 units.

I. Mathematics Courses (24 units)

Six courses are required:

MATH 1304, 1305, 2304 Calculus I, II, III sequence (12)

MATH 2101 Elements of Linear Algebra (4)

MATH 2150 Discrete Structures (4)

STAT 3401 Introduction to Probability Theory I (4) or STAT 3502 Statistical Inference I (4)

A student who has recently taken a pre-calculus course in high school should be prepared to begin the calculus

sequence. A student with three years of high school mathematics, including two years of algebra and one year of geometry, should be prepared to take MATH 1130, or possibly MATH 1300. Students who are unsure about what mathematics course to begin with, should call the department office for advice. It should be noted that students may not enroll in any baccalaureate level mathematics or computer science class unless they have met the Entry Level Mathematics (ELM) requirement or are exempt from it. Information about the ELM is available from the Testing Office at (510) 885-3661.

II. Lower Division Computer Science (12 units)

Three courses are required:

CS 1160 Introduction to Computer Science and Programming Methods (4)

CS 2360 Programming Methods and Introduction to Software Engineering (4)

CS 2430 Computer Organization and Assembly Language Programming (4)

Although CS 1160 is the required introductory course for Computer Science majors, it may be difficult for students with no experience using computers. Students who do not know how to use a word processor or who have no knowledge of computer files and operating systems should consider taking CS 1020 (Introduction to Computers) before taking CS 1160.

Students who have completed a multi-quarter course in C, C++, Ada, or Pascal at another college should consult the Mathematics/Computer Science Department; they may be able to substitute their previous coursework for CS 1160 and possibly CS 2360.

III. Upper Division Computer Science: Required Courses (16 units)

Four courses are required:

CS 3120 Programming Language Concepts (4)

CS 3240 Data Structures and Algorithms (4)

CS 3430 Computer Architecture (4)

CS 4560 Operating Systems (4)

IV. Upper Division Computer Science: Concentration (16 units)

The selection of all elective Computer Science courses is important in giving the major a coherence, with depth in key areas. These electives must be chosen with the assistance and approval of a faculty advisor.

A student must take four of the following six courses:

CS 3560 Introduction to Systems Programming (4)

CS 3660 File Management (4)

CS 4110 Compiler Design (4)

CS 4170 Theory of Automata (4)

CS 4245 Analysis of Algorithms (4)

MATH 3750 Numerical Analysis I (4)

V. Electives (12 units)

Any of the following courses may be used in meeting this requirement. However, at least 4 units (other than units from CS 3898) must be from courses with the CS prefix.

A. Any course(s) from IV not used in meeting the requirements in that category.

B. Any upper division course in Computer Science except those used in meeting requirements III or IV. No more than 4 units of CS 4900, Independent Study, and no more than 4 units of CS 3898, Cooperative Education, may be applied to the Computer Science major requirements.

C. Any graduate course in Computer Science (except CS 6000 and CS 6909).

D. CS 2170 C Language Programming (2)

E. Any upper division course in the Department of Mathematics and Computer Science or the Department of Statistics that is applicable to the BS degree in Mathematics.

F. Any courses from the following list:

CIS 3281 Systems Analysis and Design I (4)

CIS 3282 Systems Analysis and Design II (4)

CIS 4272 Advanced Topics in Business Computer Systems (4)
CIS 4273 Decision Support and Expert Systems (4)
PHIL 3002 Modern Logic (4)
PHYS 3280 Electronics (4)

The student is responsible for meeting all prerequisites for any of these courses. Many of the courses in (f) have prerequisites that are not included among major requirements.

Note: Students contemplating graduate study in Computer Science should consult with a faculty advisor early in their programs. They should be sure to include an adequate number of theory courses in their major and should have an extensive background in Mathematics.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

Students majoring in other fields may wish to complete a coherent pattern of work in Computer Science for the purpose of expanding their employment and educational opportunities. The Computer Science minor consists of 36 units and students who successfully complete this program will have that fact entered on their University records.

I. Lower Division Mathematics (12 units)

MATH 1304 and 1305 Calculus I and II (8)
MATH 2150 Discrete Structures (4)

II. Lower Division Computer Science (12 units)

CS 1160 Introduction to Computer Science and Programming Methods (4)
CS 2360 Programming Methods and Introduction to Software Engineering (4)
CS 2430 Computer Organization and Assembly Language Programming (4)

III. Upper Division Computer Science (12 units)

A. Two courses from the following list:

CS 3120 Programming Language Concepts (4)
CS 3240 Data Structures and Algorithms (4)
CS 3430 Computer Architecture (4)
CS 4560 Operating Systems (4)

B. One upper division Computer Science elective.

This may be a third course from the list in (a) above or any course from category IV of the requirements for the major in Computer Science.

Students majoring in Computer Science find it relatively easy to obtain a minor in Mathematics because there is a significant overlap in lower division requirements for the CS major/Math minor. To accomplish this, a student must complete three approved upper division mathematics electives. Two of these electives must be chosen from the following five courses: MATH 3100, 3121, 3215, 3300, and 3331; the third elective must be an upper division mathematics course (which may include any crosslisted, upper division course in Statistics or Computer Science, but not MATH 4021, 4022, or 4023). Two upper division MATH electives can be applied to the Part V requirements for the Computer Science major.

UNDERGRADUATE COURSES

Mathematics courses offered by the Department of Mathematics and Computer Science are fully described in the Mathematics section of this catalog. (*Note:* In order to enroll in any baccalaureate-level Mathematics or Computer Science course, freshmen must satisfy the Entry-Level Mathematics (ELM) requirement. Transfer students must also pass the ELM if they have not completed a course above the level of Intermediate Algebra with a grade of "C" or better.)

1020 Introduction to Computers (4)

Computers, their use and place in modern society. Computer organization and hardware, computer software. Introduction to use of the computer, operating system commands, word processing, database management, other applications, and computer programming. Internet and its use. Ethical and societal issues. Prerequisite: Satisfaction of the Entry Level Mathematics (ELM) requirement. No prior computer experience necessary; course recommended for students of any major who want to learn about computers and how to use them.

1160 Introduction to Computer Science and Programming Methods (4)

An introduction to computers, problem solving, algorithms, and program design. Use of University computing facilities. Programming done in C++. Topics include control structures, arrays, functions, input and output. Prerequisite: MATH 1300 or equivalent; students with no computer experience are encouraged to take CS 1020 as preparation for this course.

2170 C Language Programming (2)

Programming in the C language, especially in a Unix environment. Prerequisite: CS 2360, CS 2430 or equivalents.

2360 Programming Methods and Introduction to Software Engineering (4)

A systematic approach to the design, construction, and management of large computer programs, emphasizing programming style, documentation, debugging techniques, and testing. Includes files, structured data types, information hiding, pointers, and linked lists. Prerequisite: CS 1160.

2430 Computer Organization and Assembly Language Programming (4)

Functional organization of digital computers and programming in machine and assembly language. Internal representation of data, binary arithmetic, machine instructions, addressing modes, subroutine linkage, macros. Introduction to assemblers, linkers, and loaders. Prerequisite: An introductory programming course. (A)

3120 Programming Language Concepts (4)

Survey and critical comparison of a variety of computer languages. Issues include syntax, semantics, control structures, data representation. Discussion of both design and implementation; of both imperative and declarative languages. Prerequisite: CS 2360. (A)

3240 Data Structures and Algorithms (4)

Definition, design, implementation of abstract data structures, including stacks, queues, generalized lists; implementation as contiguous or linked structures. Structures include tables and hashing, trees, graphs. Algorithms for manipulating structures, searching, sorting; introduction to the analysis of these algorithms. Prerequisites: MATH 2150, CS 2360, CS 2430. (A)

3340 Introduction to Object Oriented Programming and Design (4)

Programming in an object-oriented language, using object-oriented techniques and concepts. Classes, operator overloading, information hiding, inheritance, and polymorphism. Memory management. Parameterized classes. Exception handling. Object-oriented design of programs. Prerequisite: CS 3240; CS 2170 or knowledge of C programming.

3430 Computer Architecture (4)

Logical design of digital computers. Boolean algebra, combinational and sequential circuits, computer arithmetic, memories, integrated circuits, control processors, input/output. No electronics experience needed. Prerequisite: MATH 2150, CS 2430. (A)

3432 Digital Electronics Lab (4)

Experimentation in digital electronics using standard TTL integrated circuits. Projects range from those involving basic digital circuits through stored program processors. Two hrs. lect., 6 hrs. lab. Prerequisite: CS 3430. (Y)

3434 Computer Interfacing Lab (4)

Experimentation and study of a microprocessor, including architecture, programming, and interfacing. Two hrs. lect., 6hrs. lab. Prerequisite: CS 3430. (Y)

3510 Windows Programming (4)

Introduction to Windows, windows functions and messages, graphics device interface, keyboard and mouse inputs, child windows, multiple document interface, dynamic link libraries. Prerequisites: CS 2170, 3240.

3560 Introduction to Systems Programming (4)

Introduction to systems programming in a modern environment. Introduction to fundamental concepts of operating systems; analysis of a particular operating system (organization, interfaces, system calls, files, process control and communication, resource sharing). Shell and C programming. Development tools. Prerequisites: CS 2170, or equivalent, and CS 2430. (F, W, Sp)

3590 Data Communications and Networking (4)

Fundamentals of data communications: media, transmission, encoding and processing, interfacing, error detection and handling, link control, multiplexing, circuit and packet switching. Introduction to network architecture and topology: local and wide area networks. Prerequisites: CS 2170 and CS 3430. (F, W, Sp)

3660 File Management (4)

Study of secondary storage devices; sequential files, index structures and indexed files, direct files. Multikey processing, data compression, and algorithms for external sort and merge. Introduction to database models and query languages. Prerequisite: CS 3240. (F, W, Sp)

3750 Numerical Analysis I (4)

(See [MATH 3750](#) for course description)

3860 Computer Music Programming (4)

Introduction to the concepts and software techniques of computer music. Students write programs to produce sounds, process sounds, and organize sounds into musical structures. Fundamentals of digital audio. Synthesis techniques. Reverberation and sound spatialization. Algorithmic composition. Computer languages for synthesis and scoring. The MIDI standard. Prerequisites: MATH 1300 and CS 1160.

3898 Cooperative Education (2)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Computer Science major. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity; completion of lower division Computer Science major requirements, and upper division standing. (A)

4110 Compiler Design (4)

Design and construction of high-level language translators. Formal language theory, parsing algorithms, interpreting, code generation, optimization. Construction of a small compiler. Prerequisites: CS 3120, 3240. (A)

4170 Theory of Automata (4)

Formal models of automata, language, and computability and their relationships. Finite automata and regular languages. Push-down automata and context-free languages. Turing machines, recursive functions, algorithms and decidability. Prerequisites: MATH 2101, 2150, 2304. Cross-listed with [MATH 4170](#). (Y)

4220 Parallel Algorithms and Programming (4)

Design and construction of parallel programs for shared and distributed applications and computers. Concurrency, communication, and synchronization of parallel processes. Prerequisite: CS 4560.

4245 Analysis of Algorithms (4)

Design, analysis and implementation of algorithms. Methods of algorithm design, including recursion, divide and conquer, dynamic programming, backtracking. Time and space complexity analyses in the best, worst, and average cases. NP-completeness; computationally hard problems. Applications from several areas of Computer Science. Prerequisites: MATH 2101, 2304, CS 3240. Cross-listed with [MATH 4245](#). (Y)

4430 Computer Architecture II (4)

Advanced computer organization and design. Topics chosen from among RISC architectures, computer arithmetic, pipelining, cache memory and parallel processors. Prerequisite: CS 3430; recommended: knowledge of C programming.

4432 VLSI Circuit Design (4)

Fundamental design techniques for VLSI (Very Large Scale Integrated) circuits. Theory of implementing complex integrated circuits on a microchip. Use of computer aided design tools. Prerequisites: CS 3430, 3432. (Y)

4560 Operating Systems (4)

Principles of operating system design and implementation. Concurrent processes, interprocess communication, job and process scheduling; deadlock. Issues in memory management (virtual memory, segmentation, paging) and auxiliary storage management (file systems, directory structuring, protection mechanisms). Performance issues. Case studies. Prerequisites: CS 3240 and CS 3430. (A)

4590 Computer Networks (4)

Computer network analysis, design, and implementation. Detailed study of specific standard models (e.g. ISO), implementations (e.g. SNA, DECNET), and protocols (e.g. IP, TCP, TLI). Emphasis on network to application layers. Remote procedure calls. Programming assignments using TCP/IP. Prerequisites: CS 3590 and CS 4560. (Y)

4660 Database Architecture (4)

Relational, network, and hierarchical data models. Data description and data manipulation languages. Schemas, query processing, database system architecture. Integrity, concurrency, and security techniques. Distributed databases. Prerequisite: CS 3660. (Y)

4750 Numerical Analysis II (4)

(See [MATH 4750](#) for course description)

4810 Artificial Intelligence (4)

"Intelligent" computer programs and models of human intelligence. Game playing, robotics, computer vision, understanding natural language, knowledge engineering, computer learning. Prerequisite: CS 3240. (Y)

4840 Computer Graphics (4)

Survey of computer graphics hardware, algorithms, techniques, and standards. Software development on color-mapped raster-scan computer graphics system. Prerequisites: MATH 2101, 2304 and CS 3240, 3430. (F, W, Sp)

4848 Computer Animation Programming (4)

Principles and techniques used to produce software for computer-generated animations. Survey of traditional animation techniques. Issues in 3-D viewing, rendering, and modeling. Motion specification and interpolation. Physically-based and behavioral modeling. Prerequisite: CS 4840.

4860 Graphical User Interface, Object-Oriented Programming (4)

Introduction to programming graphical user interfaces in an object-oriented environment. Survey of popular graphical user interfaces (GUI), including Macintosh, Windows 3.x and X. Object-Oriented Programming (OOP) using C++

class libraries. Prototyping tools, tool command languages. Prerequisites: CS 2170 or equivalent, CS 3240.

4900 Independent Study (1-5)

Online University Catalog
California State University - Hayward
Last Update: 11/18/96

Criminal Justice Administration [CRJA]

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- [COURSES](#)

CRIMINAL JUSTICE ADMINISTRATION

Department of Criminal Justice Administration
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Assistant Professors:

Stephanie A. Marquez, Patricia L. Zajac

Lecturers:

Anthony Newland, Edwina C. Parsons, Michael J. Peretti, Neil R. M. Stratton

PROGRAM DESCRIPTION

The Department of Criminal Justice Administration offers an undergraduate program designed for the development of knowledge and understanding of practices, theory, and concepts of justice administration, as well as to prepare students for professional careers in justice administration, law enforcement, and corrections. The major includes two specialized options and the student selects one depending on her/his career interest.

The Law Enforcement and Administration option affords the opportunity to work in government agencies and private organizations offering challenging positions in crime prevention, investigation, and control. It is designed for students interested in careers with federal, state, and local law enforcement agencies, or in law enforcement within the private sector. Employment opportunities include administrators of institutional programs, consultants to groups in mobilizing resources to combat social problems, and social scientists working toward understanding individual and group behavior and social control by means of law.

The Corrections option is designed for students interested in careers in probation, parole, correctional institutions, and affiliated forms of work. It primarily focuses on probational services including investigation of case histories, assessment of treatment needs, advisement to the court, and the operation of diverse types of correctional programs.

Many local, state, federal and private agencies employ Cal State Hayward graduates in criminal justice. Senior majors may qualify for internship placement in criminal justice agencies throughout the Bay Area.

Local level agencies include municipal police departments, county sheriffs' offices, probation departments, halfway and pre-release houses, group homes, crisis centers, juvenile halls, welfare fraud units, computer crime analysis, and retail and industrial security agencies. State level agencies include the Highway Patrol, prisons, Department of Motor Vehicles, and Departments of Justice, Fish and Game, and Forestry. Federal level agencies include the Border Patrol, F.B.I., Secret Service, Bureau of Alcohol, Tobacco and Firearms, Internal Revenue Service, National Park Service, Customs, and federal prisons.

CAREER OPPORTUNITIES

Battered Shelter Counselor ■ Community Agency Counselor ■ Community Service Coordinator ■ Consumer Affairs Director ■ Corrections Officer ■ Crisis Counselor ■ Deputy Insurance Commissioner ■ Equal Opportunity Representative ■ FBI Agent ■ CIA Agent ■ Group Worker ■ Insurance Investigator ■ Investigator ■ Parole Officer ■ Park Ranger ■ Police Administrator ■ Police Officer ■ Security Manager ■ Social Worker ■ Vocational Rehabilitation Officer

PREPARATION

It is strongly recommended that students complete the lower division (1000-2000) courses before taking the upper division courses.

MAJOR REQUIREMENTS - B.S.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 78 units; the B.S. degree requires a total of 186 units. Credit/No Credit (CR/NC) grading is not permitted for classes used to meet the major requirements.

I. Lower Division (34 units)

(Lower division courses in the major can be satisfied by successful completion of equivalent courses at a community college.)

CRJA 2100 Elementary Criminal Law (4)
CRJA 2200 Basic Criminal Investigation (4)
CRJA 2400 Evidence in Corrections & Law Enforcement(4)
CRJA 2500 Administration of Justice (4)
CRJA 2600 Police Community Relations (4)
PSYC 1000 General Psychology (5)
SOC 1000 Introduction to Sociology (4)
STAT 1000 Elements of Probability and Statistics (5)

II. Upper Division Core (16 units)

CRJA 3200 Research Methods in Criminal Justice (4)
CRJA 3700 Ethics and Justice Administration (4)
POSC 3410 Law and Society (4)
SOC 4740 Criminology (4)

III. Option (28 units)

Students select one option to complete.

A. Option A -- Law Enforcement and Administration (28 units)

Students who elect to take Option A must complete each of the following 4 courses:

- CRJA 3300 Crime Prevention and Control (4)
- CRJA 3400 Advanced Criminal Investigation (4)
- CRJA 3610 Police Organization and Management (4)
- CRJA 3800 Comparative Evidence and Its Evaluation (4)

Under Option A, students must complete a total of 12 additional upper division units from the specialized elective area.

B. Option B -- Corrections (28 units)

Students who elect to take Option B must complete each of the following 4 courses:

- CRJA 3100 Corrections and Criminal Justice (4)
- CRJA 4700 Community Based Corrections (4)
- SOC 3520 Sociology of Minority Groups (4)
- SOC 3700 Introduction to Social Services (4)

In addition, under Option B, students must complete a total of 12 additional upper division units from a specialized elective area.

C. Specialized Electives (12 units)

Students must choose the 12 units in a specialized elective area for Option A or B from among the following courses provided that the course or courses chosen have not previously been taken as part of an option.

ACCT 4280 Governmental Accounting (4); ANTH 3000 Anthropology in the Modern World (4), 3505 Indians of California (4), 3545 China (4), 3550 Japan (4), 3720 Medical Anthropology (4), 3740 Cross-Cultural Studies in Child-Rearing (4), 3800 Language and Culture (4); CRJA 3100 Corrections and Criminal Justice (4), 3300 Crime Prevention & Control (4), 3400 Advanced Criminal Investigation (4), 3500 Criminal Identification (4), 3610 Police Organization and Management (4), 3800 Comparative Evidence & Its Evaluation (4), 4121 Probation and Parole (4), 4123 The Crime Victim (4), 4124 Sex Crime Investigation (4), 4700 Community Based Corrections (4); ENGL 3003 Discursive Writing (4); E S 3120 The Civil Rights Movement (4); MML three upper division courses in a single foreign language* (4-4-4)

MGMT 3600 Theories of Management (4), 3614 Organizational Behavior (4); PHIL 3503 Philosophy of Law (4); POSC 3340 The Political Status of Women (4), 3441 American Constitutional Law (4), 3442 American Constitutional Law (4), 4450 Administrative Law (4); PSYC 3500 Social Psychology (4), 3520 The Psychology of Small Groups (4), 4360 Psychopharmacology (4), 4410 Abnormal Psychology (4), 4610 Psychology of Personality (4); PUAD 4800 Public Administration (4), 4830 Organization Theory & Human Behavior(4); SOC 3410 Sociology of the Family (4), 3415 Sociology of the African-American Family (4), 3416 Sociology of the Mexican-American Family (4), 3480 Violence and Conflict (4), 3500 Social Psychology (4), 3520 Sociology of Minority Groups (4), 3700 Introduction to Social Services (4), 3710 Social Policy (4), 3730 Juvenile Delinquency (4), 3745 Social Deviance (4), 3750 Alcohol and Drug Abuse (4), 4450 Urban Sociology (4), 4750 Child Welfare (4)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 33 units. The purpose of the minor is to provide interested students with the opportunity to study the central areas of criminal justice. The selected courses will offer instruction in law, law enforcement, ethics, corrections and the courts. The minor allows those students with career plans in the social services and business administration to acquire knowledge of criminal justice, a career area with high employment prospects. Credit/No Credit (CR/NC) grading is not permitted for classes used to meet minor requirements.

I. Lower Division (12 units)

- CRJA 2100 Elementary Criminal Law (4)
- CRJA 2200 Basic Criminal Investigation (4)
- CRJA 2500 Administration of Justice (4)

II. Lower Division Statistics Requirement (5 units)

- STAT 1000 Elements of Probability and Statistics (5)

III. Upper Division Requirements (16 units)

- CRJA 3100 Corrections and Criminal Justice (4)
- CRJA 3300 Crime Prevention and Control (4)
- CRJA 3610 Police Organization and Management (4)
- CRJA 3700 Ethics and Justice Administration (4)

COURSES

2100 Elementary Criminal Law (4)

[CAN AJ 4]

The nature and functions of criminal law and the principles and rules underlying its administration. Classification of criminal statutes and crimes. (Y)

2200 Basic Criminal Investigation (4)

[CAN AJ 8]

The principles and methods of investigation used to acquire and to disseminate information about crimes. (Y)

2400 Evidence in Corrections and Law Enforcement (4)

[CAN AJ 6]

The role of science and law in the utilization of physical and social evidence in justice administration. (Y)

2500 Administration of Justice (4)

[CAN AJ 2]

Survey of the various components of the American criminal justice system, emphasizing police, court and corrections administration. An historical, philosophical overview of justice administration. (Y)

2600 Police Community Relations (4)

The relationship between justice administration and the public with particular emphasis on police relations with ethnic and sexual minorities, and juvenile and adult offenders. (Y)

3100 Corrections and Criminal Justice (4)

Legal aspects of juvenile and adult corrections. Investigative techniques in corrections, including probation and parole. Analysis of concepts of rehabilitation, punishment and revenge. (Y)

3200 Research Methods in Criminal Justice (4)

The application of scientific research methods to selected data and statistics in justice administration. Use of scientific methodology in interpreting crime and correctional data. Prerequisite: STAT 1000 or equivalent. (Y)

3300 Crime Prevention and Control (4)

Concepts of planning and implementation of crime prevention and control systems. The role of security in urban society and civilian involvement in crime prevention. (Y)

3400 Advanced Criminal Investigation (4)

A continuation of CRJA 2200. The exploration of investigative problems in major crimes. Analysis of role of criminal investigator and the legal use of scientific aids to investigation. Case history, examination and analysis. Prerequisite: CRJA 2200 or consent of instructor. (Y)

3500 Criminal Identification (4)

Personal identification in criminal and civil investigation. Photography in criminal identification, classification and filing of fingerprints. Handwriting and voice identification. Identification of the unknown dead and skeletal remains. (Y)

3610 Police Organization and Management (4)

Application of principles of organization and management to the study of police agencies and crime investigation; relationship of police agencies to other public agencies. (Y)

3700 Ethics and Justice Administration (4)

The development of social theories and their application to the study and analysis of ethical decision-making. Studies deal with problems of integrity through organization, management, and leadership, with emphasis on public agencies, particularly the criminal justice system.

3800 Comparative Evidence and Its Evaluation (4)

The forensic comparative process; studies of microscopic characteristics of various types of physical evidence. Topics include firearms and tool identification, impression evidence, technical photography and preparation of laboratory findings for court. (Y)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated up to 8 units. A maximum of 8 units will be accepted toward the Criminal Justice Administration major. Prerequisites: at least a 2.0 GPA; departmental approval of activity; junior or senior standing. (A)

4121 Probation and Parole (4)

Historical and theoretical perspectives on the organization and functions of probation and parole. Emphasis on the process and function of the resocialization and reorganization of offender. Special study of probation and parole as services within the criminal justice system; principles and practices at county, state and federal levels.

4123 The Crime Victim (4)

The criminal justice system from the perspective of the victim and the victim's needs/concerns. Various facets of victimology including: victimization data, victim compensation, psychological impacts of crime on victims, and alternatives to current remedies.

4124 Sex Crime Investigation (4)

Theoretical foundations related to sexual crimes. Basic skills necessary to investigate sexual assault cases, collection and preserving physical evidence, interviewing and interrogation of subjects and victims, and successful preparation of cases for presentation. (Y)

4700 Community Based Corrections (4)

The role of local, state and federal government in the development of community-based correctional programs. Alternatives to incarceration of the criminal. Topics include halfway houses of correction, community furlough and ex-offender employment. (Y)

4900 Independent Study (1-4)

* Strongly recommended.

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California State University - Hayward
Last Update: 11/18/96

Economics [ECON]

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ECONOMICS

Department of Economics
School of Business and Economics
Office: Music and Business Bldg. 2583
Phone: (510) 885-3339

Professors:

James C. W. Ahiakpor (Chair), Charles W. Baird, Alexander E. Cassuto, Gregory B. Christainsen, Shyam J. Kamath, Kurt R. Leube, Anthony K. Lima, Nan L. Maxwell, Lynn C. Paringer, Robert S. Ozaki, Stephen Shmanske, David J. St. Clair, Jay L. Tontz

Associate Professor:

Jane E. Lopus

Assistant Professor:

Leo Kahane

PROGRAM DESCRIPTION

The Economics major prepares the student for a broad variety of careers including those in law, journalism, banking and insurance, government, teaching, and research. In addition, the study of economics has become essential in today's dynamic and complex business environment.

An economics education provides the student with a logical way of approaching various problems and issues and provides qualitative skills valued highly by employers. The student learns techniques for analyzing contemporary economic problems and develops the ability to exercise sound judgement in evaluating public policy issues. Many of these skills are useful in daily decision-making irrespective of career choice. The broad background developed with the Economics major encourages the student to become an interested, understanding observer of the events of today's and tomorrow's world.

CAREER OPPORTUNITIES

Analyst ■ Business Executive ■ Economist ■ Employment Researcher/Planner ■ Financial Consultant ■ Foreign Service Officer ■ Financial Analyst ■ Management Analyst ■ Market Research Analyst ■ Policy Analyst ■ Professor/Teacher ■ Public Policy Analyst ■ Securities Analyst ■ Statistical Analyst ■ Statistician ■ Stockbroker

FEATURES

The weekly Workshop in Economics Research (ECON 4895) provides a forum for presenting and debating faculty research and for inviting U.S. and international specialists in economics and management to discuss their research and published work. Some of the visiting speakers are sponsored by the Smith Center for Private Enterprise Studies which was started with a donation of more than \$1,000,000 from Owen and Erma Smith of Castro Valley. (The Smith Center also awards scholarships to selected Cal State Hayward economics majors who wish to pursue Ph.D. studies in economics.) Undergraduate Economics students are required to attend the workshop for three quarters for credit, usually in the senior year.

Advanced Placement, Economics

See the [Registration chapter](#) at the front of this catalog for Advanced Placement test equivalencies in Economics.

MAJOR REQUIREMENTS - B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 72-73 units; the B.A. degree requires a total of 186 units. Students receiving a B.A. degree major in Economics from this university must complete at least 20 units of Economics in residence.

I. Lower Division (21 units)

MATH 1810,* 1820 Mathematics for Business & Social Sciences I, II, or
MATH 1304,* 1305 Calculus I, II (8)**
ECON 2301 Principles of Microeconomics (4)
ECON 2302 Principles of Macroeconomics (4)
STAT 2010*** Elements of Statistics for Business and Economics (5)

II. Upper Division (51-52 units)

Complete the following courses as soon as possible after the lower division Requirements have been satisfied:

ECON 3000 Micro-Economic Theory (4)
ECON 3005 Macro-Economic Theory (4)
ECON 3170 History of Economic Thought (4)
ECON 3310 Money, Banking, & Fin Intermediaries (4)
ECON 4000 Seminar in Micro-Economic Theory (4)
ECON 4400 Introduction to Econometrics (4)
MKTG 4495 Administrative Communication (4)

Note: Double majors in Economics and Business Administration may substitute ECON 3551 for ECON 3000 and an additional upper division Economics elective (excluding ECON 3552) for ECON 4000.

III. Electives (23-24 units)

Complete 23-24 additional units to include:

ECON 4895 Workshop in Economic Research. (Must be taken 3 times, preferably during the senior year)

Choose (A) or (B)****

- A. Five courses in Economics, excluding ECON 3551 and 3552 (20)
- B. Four courses in Economics, excluding ECON 3551 and 3552 (16) plus one course from:
MGMT 3100 Quantitative Methods in Bus (5)
STAT 3502 Statistical Inference I (4) [Students substituting STAT 3502 for STAT 2010 cannot use STAT 3502 in option (B).]
STAT 3503 Statistical Inference II (4)
STAT 4610 Non-parametric Statistical Methods for the Social Sciences (4)

Note: Students who plan to attend graduate school in Economics or Business Administration should complete alternative (B).

Sample Program

Freshman

History & Institutions Requirement
ENGL 1001
MATH 1130, 1810, 1820, or 1304, 1305

Sophomore

ECON 2301, 2302, STAT 2010

Junior

ECON 3000, 3005, 3170, 3310, 4000, 4400
Two ECON electives
MKTG 4495

Senior

ECON 4895 each quarter
Four ECON electives

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 40 units. Please note: A student cannot have both a Managerial Economics option under the Business Administration major and an Economics minor.

I. Lower Division (16 units)

MATH 1810,***** 1820 Math for Bus. and Soc. Sciences I, II or MATH 1304, 1305, Calculus I, II***** (8)
ECON 2301 Principles of Microeconomics (4)
ECON 2302 Principles of Macroeconomics (4)

II. Upper Division (24 units)

Complete the following courses as soon as possible after the lower division Requirements have been satisfied:

ECON 3000 Micro-Economic Theory (4)
ECON 3005 Macro-Economic Theory (4)
ECON 3310 Money, Banking, & Financial Intermediaries (4)
ECON 4000 Seminar in Micro-Economic Theory (4)
Two elective courses in Economics (8)

Note: Business Administration students may substitute ECON 3551 and either ECON 3552 or MGMT 3620 for ECON 3000 and 4000.

DOUBLE MAJOR

Students majoring in economics should consider the advantages of a double major, particularly Economics and Business Administration, Economics and Statistics, or Economics and Mathematics. Other double majors are possible by an appropriate selection of elective courses.

However, since both mathematics and Statistics courses are required for the major in Economics, and Economics is required for a major in Business Administration, it is relatively simple to obtain a double major in Economics and Mathematics, Statistics, or Business Administration.

MANAGERIAL ECONOMICS OPTION

An option in Managerial Economics is provided in the Business Administration major for business students with an interest in economics. (See [Business Administration](#).)

ECONOMICS OPTION: LIBERAL STUDIES

Area I (8 units)

ECON 2301 Principles of Microeconomics (4)
ECON 2302 Principles of Macroeconomics (4)

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

ECON 3000 Micro-Economic Theory (4)
ECON 3005 Macro-Economic Theory (4)
Four additional upper division Economics courses (excluding ECON 3551 and ECON 3552) (16)

COURSES

1000 Economics of Public Issues (4)

Examination of selected current public issues; e.g., shortages of food and fuel, pollution, slums, airline fares, stagflation, income distribution, and the function of property rights. Designed for non-economics majors and not open to students who have taken ECON 2301. (F,W,Sp)

2301 Principles of Microeconomics (4)

[CAN ECON 4]

Basic micro-economic concepts; introductory analysis of the determination of prices and output in different market situations; public policy. Prerequisites: sophomore standing and either credit for intermediate algebra or satisfactory score on the Entry-Level Math (ELM) Test. (A)

2302 Principles of Macroeconomics (4)

[CAN ECON 2]

Basic macro-economic concepts; introductory analysis of the determination of national income and employment; money and banking; fiscal policy. Prerequisites: ECON 2301 and either credit for intermediate algebra or satisfactory score on the Entry-Level Math (ELM) Test. (A)

3000 Micro-Economic Theory (4)

Analysis of supply and demand; production and costs; price and output determination; factor pricing and income distribution; optimum resource allocation. Prerequisites: MATH 1820 or MATH 1305, and ECON 2301 with grade not lower than C. (W)

3005 Macro-Economic Theory (4)

Measurement and analysis of the determination of national income and employment; general price level; stabilization and growth. Prerequisites: ECON 2301, 2302, with grade not lower than "C" in 2302. (A)

3140 Topics in Economic History (4)

History of economic development of a specific area or region of the world. Topics include U.S. history, African history, Eastern or Western European history, Middle Eastern history. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 2301 or consent of instructor.

3170 History of Economic Thought (4)

The key theories and individuals in the history of economic thought including Adam Smith, David Ricardo, and Karl Marx. Prerequisites: ECON 2301 and 2302.

3180 Selected Topics in Economic Thought (4)

Particular economic theorists, methodologies, schools of thought, and themes in the history of economics. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 2301, 2302.

3190 Market Processes--Theory and Applications (4)

Austrian School analysis of socio-economic phenomena including methodology of the social sciences, theory of subjective value, entrepreneurship, competition as a discovery procedure, spontaneous orders, the division of knowledge, the capital structure, and trade cycles. Historical applications used throughout. Prerequisites: ECON 2301, 2302 or consent of instructor.

3200 Comparative Economic Systems (4)

Comparative study of different economic systems proposed or used to deal with the economic organization of society. Prerequisite: ECON 2301.

3310 Money, Banking, and Financial Intermediaries (4)

Essentials of commercial and central banking; financial intermediaries; monetary policy. Prerequisite: ECON 3005 or consent of instructor. (A)

3370 Public Sector Economics (4)

Public sector economics; taxation, welfare economics, public goods, the rationale of government activity and collective choice. Prerequisites: ECON 2301 and 2302.

3375 Public Choice (4)

Economic theory applied to political institutions and decision-making within governments. Allocations under various property right systems; coalitions and voting behavior; theory of constitutions; theory of bureaucracy; political economy of income redistribution, crime, violence, discrimination, federalism, nationalism, anarchy. Prerequisite: ECON 2301.

3500 Regional and Urban Economics: Survey (4)

Economic analysis as applied to urban and regional economic problems and policies. Prerequisite: ECON 2301. (W)

3551 Managerial Economics (4)

A case analysis and problems approach to intermediate microeconomic theory stressing business applications. Prerequisites: ECON 2301, and STAT 2010. Prerequisite or concurrent: MATH 1820 or 1305. Course not recommended for Economics majors.

3552 Introduction to Production Economics (4)

Analysis of production and cost theory and its use in managerial decision making. Includes applications of production theory to inventory control, capacity constraints, production planning, quality control and equipment replacement. Specific techniques covered include linear programming, Monte Carlo simulation, and decision tree analysis. Course not recommended for Economics majors. Prerequisites: ECON 3551 and MGMT 3100.

3680 Labor Economics (4)

Theory of the operation of labor markets, with the application of this theory to current manpower problems and the level of employment. Prerequisite: ECON 2301.

3685 Labor Institutions (4)

Development of the labor sector in the American economy with emphasis on labor institutions, labor legislation, and public policy toward labor organizations. Prerequisite: ECON 2301.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 8 units. No units may be counted toward the Economics major or minor. Prerequisites: At least 2.0 GPA: departmental approval of activity. Credit/No Credit grading only. (A)

4000 Seminar in Micro-Economic Theory (4)

Readings and discussion of advanced topics in analysis of market behavior, factor pricing and income distribution, general equilibrium, capital and interest, and property rights. Prerequisite: ECON 3000. (Sp)

4306 Environmental Economics (4)

Readings, reports and discussion on economic aspects of environmental problems and alternative proposed solutions: pollution, congestion, population. Prerequisite: ECON 2301. (Sp)

4315 Monetary Theory (4)

Review of current literature on the demand for and supply of money; effects of monetary policy on inflation, unemployment, interest rates, and balance of payments. Prerequisite: ECON 3310.

4400 Introduction to Econometrics (4)

Applications of statistical techniques to obtain quantitative estimates of relationships suggested by economic analysis. Prerequisites: ECON 2301, 2302, STAT 2010.

4520 Industrial Organization and Public Policy (4)

Factors determining industrial organization and economic behavior; operation of antitrust laws; public regulation. Prerequisite: ECON 3000 or 3551.

4590 Selected Topics in Economic Analysis (4)

Application of economic analysis to past/contemporary economic issues. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 2301 and 2302 or consent of instructor.

4700 International Trade (4)

Comprehensive coverage of the modern theory of international trade, foreign investment, the nature and effects of protection, multinational enterprise, world economic growth and international trading systems. Prerequisites: ECON 2301, 2302.

4705 International Finance (4)

Comprehensive coverage of the organization, operation and theory of foreign exchange markets, Eurocurrency and offshore financial markets, balance of payments and international adjustment, international capital flows and different types of international monetary systems. Prerequisites: ECON 2301, 2302. (formerly ECON 4105)

4710 International Economic Development (4)

The factors and theories underlying international economic development with a focus on the nature and causes of development in specific areas and nations in Africa, Asia, Europe, North America and South America. Prerequisite: ECON 2301. (formerly ECON 4110)

4895 Workshop in Economic Research (1)

Workshop activity in the preparation, presentation, and evaluation of student and faculty research projects. Content varies. May be repeated each quarter for credit. Prerequisite: at least junior standing. (F,W,Sp)

4900 Independent Study (1-4)

* MATH 1130 is the prerequisite to MATH 1810. This prerequisite cannot be bypassed. MATH 1130 must be satisfied by either (a) passing MATH 1130, or (b) achieving a college-algebra-level score on the Mathematics Placement Test (MPT). Note that completing MATH 1810-20 or their Cal State, Hayward-accepted transfer-equivalents-including the two-course calculus substitution-does not waive MATH 1130 as a required prerequisite.

** Students who plan to attend graduate school in Economics or Business Administration or those with quantitative orientations should take the MATH 1304, 1305 series instead. The following electives are also recommended: MATH 2101 and 2304, and a course in linear algebra or analysis (such as MATH 3100 or 3300).

*** Students who have a grade of "B" or better in MATH 1810 or MATH 1304 or their equivalents are encouraged to substitute STAT 3502 for STAT 2010.

**** Students intending to attend graduate school in Economics or Business Administration should complete alternative (b).

***** MATH 1130 is the prerequisite to MATH 1810. This prerequisite cannot be bypassed. MATH 1130 must be satisfied by either (a) passing MATH 1130 or (b) passing a Cal State, Hayward accepted transfer equivalent for MATH 1130, or (c) achieving a college algebra level score on the Math Placement Test. (MPT). Note that completing MATH 1810-20 or their Cal State, Hayward-accepted transfer equivalents, including the two course calculus substitution does not waive MATH 1130 as a required prerequisite.

***** Students who plan to attend graduate school in Economics or Business Administration or those with quantitative orientations should take the MATH 1304, 1305 series instead. The following electives are also recommended: MATH 2304, and a course in linear algebra or analysis (such as MATH 3100 or 3300).

Educational Psychology [EPSY]

- [SPECIAL EDUCATION OPTION: LIBERAL STUDIES](#)
- [UNDERGRADUATE COURSES](#)

EDUCATIONAL PSYCHOLOGY

Department of Educational Psychology
School of Education and Allied Studies
Office: Art & Education Bldg., 369
Phone: (510) 885-3011

Professors:

Theodore G. Alper, Jacki L. Anderson, Thomas G. Anderson, Donald J. Brown, Steven E. Crapo, Mary P. diSibio, David H. Frey, John A. Guthrie, Frederick E. Heslet, Alvin H. Jones, Jr. (Chair), Phyllis G. Kaplan, Donald P. McKillop, Leslie H. Mitchell, Harry M. Overline, Beatrice O. Pressley, Dan Romero, Douglas G. Sprague, Derald W. Sue, Arthurlene Towner, Thomas E. Whalen

Associate Professor:

Ann Halvorsen

Assistant Professor:

Greg Jennings

SPECIAL EDUCATION OPTION: LIBERAL STUDIES

The department offers the core requirements for the Special Education Option in Liberal Studies, Area VII (see the [Liberal Studies section](#) for a full description of the Liberal Studies major; see [Educational Psychology](#) in the graduate section for descriptions of 5000-level courses).

I. Core Requirements (14 units)

(See the [Educational Psychology chapter](#) in the graduate section of this catalog for course descriptions.)

EPSY 5021 The Exceptional Individual (4)

EPSY 5121 Counseling Exceptional Children (4)

EPSY 5125 Methods, Materials and Media for Exceptional Individuals (3)

EPSY 5136 Curriculum for Students with Severe Disabilities (3)

While the department offers primarily graduate courses, it also offers the following courses for undergraduates who are interested in Counseling, Clinical Child Psychology, and Educational Psychology. Seniors interested in transitioning to a master's degree program in any of these areas may want to consider applying for graduate credit while still an undergraduate (see [Baccalaureate Degree Requirements chapter](#)). Courses listed at the 5000 and 6000 level under Educational Psychology in the Graduate section of this catalog may also be taken for graduate credit with the same approved petition, but instructor's approval is required prior to registration.

UNDERGRADUATE COURSES

1000 Strategies for Academic Excellence (3)

Strategies for excellence and survival in organizations with special emphasis on the university environment. Time and skills management, interpersonal communications, and the self in systems and groups. CR/NC grading only.

1001 Career Planning for College Students (2)

For students who are unclear about their career goals. Discussion, individual and small group activities designed to increase students' self-knowledge in terms of interests, abilities, and values, as well as information about the world of work and effective decision making techniques. Credit/No Credit only. Not applicable to General Education-Breadth Requirements. (A)

3210 Movement Analysis and Awareness (3)

(See [DANC 3210](#) for description.)

4000 Acting and Psychotherapy (3)

Integration of theories of acting with theories of psychotherapy. Application of acting techniques to psychotherapy practice, and application of psychotherapeutic techniques to the development of acting skills. (Y)

4325 Lesbian and Gay Lifespan Development (4)

(See [HDEV 4325](#) for description.)

English [ENGL]

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- [COMPETENCY PROGRAM IN WRITTEN ENGLISH](#)
- [COURSES](#)

ENGLISH

Department of English
School of Arts, Letters, and Social Sciences
Office: Warren Hall UM79
Phone: (510) 885-3151

Professors:

Zelda Boyd, Charles DeBose, Martin Friedman, Jacob Fuchs, Marcelline Krafchick, Donald Markos, E. J. Murphy, Marilyn Silva

Associate Professors:

Eileen Barrett (Chair), Jacqueline Doyle, Riley T. Martin, Sara McAulay, Gwendolyn Staniforth

Assistant Professors:

Stephen D. Gutierrez, Keiko Tanaka

PROGRAM DESCRIPTION

Contrary to popular opinion, most students who major in English do not become public school teachers, although many do choose a career in teaching. Rather, English majors go into all areas of business and government, and wherever else the ability to read and write the English language effectively leads to opportunities for advancement and success. The English major is a widely recognized and respected preparation for graduate degrees in law, medicine, social services, and business. It also provides an excellent foundation for free-lance and broadcast journalism. The academic backgrounds of management personnel in private and public organizations attest to how appropriate the English major is for those who pursue careers in management and administration.

CAREER OPPORTUNITIES

Advertising Copy Writer ■ Author/Critic ■ Bookstore Manager ■ Continuity Writer ■ Corporate Communications Director ■ Foreign Service Officer ■ Freelance Journalist/Writer ■ Greeting Card Editor/Writer ■ Lawyer ■ Librarian ■ Media Specialist ■ Newspaper Reporter ■ Public Information Officer ■ Publication Editor ■ Publicity Director ■ Publishing Agent ■ Radio/TV Agent ■ Script Writer ■ Teacher/Professor ■ Technical Writer

MAJOR REQUIREMENTS - B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 64-76 units; the B.A. degree requires a total of 186 units.

I. Core Curriculum (32 units)

(While ENGL 1001 and ENGL 1002 are not listed as core requirements in the major, they are prerequisites for core classes and campus graduation requirements.)

- ENGL 2030 Introduction to Critical Writing on Prose Fiction (4)
- ENGL 2040 Introduction to Critical Writing on Poetry (4)
- ENGL 2050 Introduction to Critical Writing on Drama (4)
- ENGL 3010 Modern English Grammar (4)
- ENGL 3020 Advanced Expository Writing (4)
- ENGL 4251 Introduction to Shakespeare (4)
- One upper division English course in British Literature before 1900 (4)
- One upper division English course in American Literature before 1900 (4)

II. Courses in Supporting Fields (0-12 units)

Majors must complete, with grades of C-/CR or better, one year of a college-level foreign language or must pass a translation test administered by the English Department.

III. Option Requirements (32 units)

The Department of English offers several options for degree candidates. Majors must choose one of the following options: British and American Literature, New Voices in English Literature, Language and Discourse, Creative Writing, and Interdisciplinary Language and Literature Studies.

A. British and American Literature (32 units)

- ENGL 3080 Theory and Practice of Literary Criticism (4)
- ENGL 4151 Introduction to Chaucer (4)
- One upper division English course in Medieval or Renaissance literature (4)
- One upper division English course in Restoration or 18th Century literature (4)
- One upper division English course in British literature of the 19th Century (4)
- One upper division English course in American literature of the 20th Century (4)
- One upper division English course in the literature of an ethnic or cultural minority (4)
- One upper division English course elective (4)

B. New Voices in English Literature (32 units)

- ENGL 3080 Theory and Practice of Literary Criticism (4)
- ENGL 3691 Black Literature I (4)
- ENGL 3692 Black Literature II (4)
- ENGL 3650 Women and Literature (4)
- ENGL 3760 Literature of the 20th Century (4)
- One upper division English course in the literature of an ethnic or cultural minority (4)
- Two upper division English electives (8)

C. Language and Discourse (32 units)

- ENGL 3005 Study of Language (4)
- ENGL 3015 Introduction to Phonology (4) or
- ENGL 3030 Introduction to Semantics (4)

ENGL 3040 Linguistic History of the English Language (4)

ENGL 4010 Current Theories in Formal Grammar (4)

ENGL 4040 Introduction to American Dialects (4)

ENGL 4060 Topics in Language (4)

Two upper division English electives (8)

(Courses in language/linguistics from departments other than English may be used for these two elective courses with the permission of the department chair.)

D. Creative Writing (32 units)

ENGL 2070 Beginning Workshop in Poetry (4)

ENGL 3070 Intermediate Workshop in Fiction (4)

ENGL 3070 Intermediate Workshop in Fiction (a second time) (4) or ENGL 3075 Intermediate Workshop in Poetry (4) or ENGL 3071 Writing Women's Lives - A Workshop (4) or ENGL 3090 Electronic Journal Workshop (4)

ENGL 4070 Advanced Workshop in Fiction (4)

ENGL 4070 Advanced Workshop in Fiction (a second time) or ENGL 4075 Advanced Workshop in Poetry (4)

ENGL 4090 Project and Portfolio (4)

Two upper division English electives (8)

E. Interdisciplinary Language and Literature Studies (32 units)

In formal consultation with three professors - two from the English Department and one from a department other than English - and with the approval of the department chair, students may put together a program of 32 upper division units in literature, language, rhetoric, or writing drawn from various departments in the university. (16 of these units must be in English).

MINOR REQUIREMENTS

I. English (32 units)

The minor in English consists of 32 units, excluding ENGL 1001 and 1002, approved by an English Department advisor.

At least one course in writing beyond the freshman level; after completing ENGL 1001, choose from ENGL 2030, 2040, 2070, 3003, 3020, 3070, 3075, 4070, 4075, 4080. (Apply units to either lower or upper division units below.)

English courses, excluding ENGL 1001 and 1002

Lower Division (0-12)

Upper Division (20-32)

II. Creative Writing (32 units)

Any candidate for the bachelor's degree (except for English majors with the Creative Writing option) may also elect to obtain a Minor in Creative Writing. After completing ENGL 1001, (s)he must complete 32 quarter units, approved by a Creative Writing advisor.

ENGL 2070 Beginning Workshop in Fiction (4)

Select a minimum of 20 quarter units from:

ENGL 3070 Intermediate Workshop in Fiction (4)

ENGL 3071 Writing Women's Lives - A Workshop (4)

ENGL 3075 Intermediate Workshop in Poetry (4)

ENGL 3090 Electronic Journal Workshop (4)

ENGL 4070 Advanced Workshop in Fiction (4)
ENGL 4075 Advanced Workshop in Poetry (4)
ENGL 4080 The Art of Translation (4)
ENGL 4900 Independent Study in Creative Writing (maximum of 4 quarter units) (1-4)
Upper division Modern American or British literature, or genre courses (4-8)

Note: Creative writing courses may be repeated for credit. See [course descriptions](#) for limitations.

ENGLISH OPTION: LIBERAL STUDIES

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

Twenty-four units of upper division English courses (3000-4000 level) not used for areas I-VI on the major.

COMPETENCY PROGRAM IN WRITTEN ENGLISH

This program is designed for non-native speakers of English.

English Courses (22-24 units) -- After completing all developmental coursework assigned as a result of scoring below 151 on the English Placement Test (EPT), students must complete, with grades of "A," "B," "C," or "CR," the following courses:

ENGL 0930 Basic Reading, Composition, and Grammar for Non-Native Speakers of English (4)
ENGL 0931 Listening and Speaking Lab for Non-Native Speakers of English (2) [Optional course: SPPA 0980 Speech Laboratory for Non-Native Speakers of English (2)]
ENGL 1001 Expository Writing (4)
ENGL 1101 Adjunct Grammar Workshop and Lab for Non-Native Speakers of English I (2)
ENGL 1002 Expository Writing II (4)
ENGL 1102 Adjunct Grammar Workshop and Lab for Non-Native Speakers of English II (2)
ENGL 3001 Advanced Writing for Non-Native Speakers of English (4) or SPPA 3005 Verbal American English Skills (4)

COURSES

Developmental Writing

Students should consult the section of the catalog entitled "Appropriate Coursework Based on EPT Results" for guidelines in choosing the proper developmental writing course(s). This appears in the [Registration chapter](#) at the front of this catalog.

0801, 0802, 0803 The Intensive Learning Experience in Writing I, II, III (4 each)

A three-course sequence in basic (remedial) writing, mandatory for students who have scored 141 and below on the English Placement Test (EPT). The workshops focus on the practice of standard written English. Classes may not be used as prerequisites to the Competency Program in Written English for Non-Native Speakers of English. Units do not count toward the baccalaureate degree. Grading is A/B/C/NC only.

0804, 0805, 0806 ILE I, II, III in English for Non-Native Speakers (4 each)

Mandatory three-course sequence for non-native speakers who score 141 or below on the EPT. Focus on reading, vocabulary, and writing skills. Students who make exceptional progress may have one of these classes waived. Units do not count toward baccalaureate degree. Grading A/B/C/NC only.

0910 Developmental Writing I (4)

A writing workshop preparatory to the written communication requirements, ENGL 1001 and 1002. Developing college essay writing skills, with special attention to style and usage. May be repeated twice, for a total of 12 units, with the permission and advice of the instructor or department. Class may not be used as a prerequisite to the Competency Program in Written English Proficiency for Non-Native Speakers of English. Units do not count toward baccalaureate degree. A/B/C/NC grading only.

0915 Developmental Writing I for Non-Native Speakers (4)

Mandatory course for non-native speakers who score 142-146 on the EPT. A writing workshop preparatory to the written communication requirements, ENGL 1001 and 1002. Developing college essay writing skills, with special attention to style and usage. Part of a two-course sequence with ENGL 0925. Units do not count toward baccalaureate degree. A/B/C/NC grading only. (A)

0920 Developmental Writing II (4)

A writing workshop preparatory to the written communication requirements, ENGL 1001 and 1002. Developing college essay writing skills, with special attention to organization and development. May be repeated twice, for a total of 12 units, with the permission and advice of the instructor or department. Class may not be used as a prerequisite to the Competency Program in Written English for Non-Native Speakers of English. Units do not count toward baccalaureate degree. A/B/C/NC grading only. (A)

0925 Developmental Writing II for Non-Native Speakers of English (4)

Mandatory course for non-native speakers who score 147-150 on the EPT or who score 142-146 and pass ENGL 0915. A writing workshop preparatory to the written communication requirements, ENGL 1001 and 1002. Developing college essay writing skills, with special attention to organization and development. Units do not count toward baccalaureate degree. A/B/C/NC grading only.

0930 Basic Reading, Composition, and Grammar for Non-Native Speakers of English (4)

Focus on reading academic texts and writing essays. Units do not count toward baccalaureate degree. Prerequisites: Satisfactory completion of 800- or 900-level classes except ENGL 0910 or 0920. A/B/C/NC grading only.

0931 Listening and Speaking Lab for Non-Native Speakers of English (1)

Focus on speaking, listening to, and comprehending spoken English. Units do not count toward baccalaureate degree. Co-requisite: Enrollment in ENGL 0930. A/B/C/NC grading only.

Undergraduate**1001* Expository Writing (4)**

[CAN ENGL 2]

The theory and practice of expository writing, including narration and description. May be repeated for credit, but only the first enrollment may be applied to the Written Communication G.E. requirement. Prerequisite: Total Score of 151 or above on the EPT or exemption from the EPT, ENGL 0920 or 0925 if Total Score on EPT is 142-150, ENGL 0893 if Total Score on EPT is 141 or below. (A)

1002 Expository Writing II (4)

Further work in expository writing with emphasis on argumentation and persuasion. Introduction to the preparation and writing of the research paper. Prerequisite: ENGL 1001 with grade of C- or better. (A)

1101 Adjunct Grammar Workshop and Lab for Non-Native Speakers of English (1)

Focus on developing accuracy and style in written English. Co-requisite: Enrollment in ENGL 1001.

1102 Adjunct Grammar Workshop and Lab for Non-Native Speakers of English II (1)

Focus on developing accuracy and style in written English. Co-requisite: Enrollment in ENGL 1002.

2005 Grammar for Writers (4)

Instruction in the structure and style of the standard, literary English sentence. Review of traditional grammar and usage, with attention to the integration of the sentence into its logical and rhetorical contexts. (Y)

2010 Vocabulary Building (4)

Designed to help students build varied, precise vocabularies; introduces the historical development and present-day resources of the English vocabulary; special attention given to Latin and Greek word-building prefixes, suffixes and elements. Prerequisite: ENGL 1001. (Y)

2030 Introduction to Critical Writing on Prose Fiction (4)

The theory and practice of critical writing, based on readings in prose fiction. Prerequisite: ENGL 1002. (A)

2040 Introduction to Critical Writing on Poetry (4)

The theory and practice of critical writing, based on readings in poetry. Prerequisite: ENGL 1002. (A)

2050 Introduction to Critical Writing on Drama (4)

The theory and practice of critical writing, based on readings in drama. Prerequisite: ENGL 1002. (A)

2070 Beginning Workshop in Fiction (4)

Introduction to imaginative prose writing of various types with emphasis on basic narrative techniques. Prerequisite: ENGL 1002. May be taken twice for credit. (A)

3000 Writing for Proficiency (4)

Regular practice in those writing and proofreading skills necessary for successful performance in the Writing Skills Test. CR/NC grading only. The students' work in the class, not their performance on the WST, will determine their grade for the course. May be repeated, but only 4 units may be counted toward the baccalaureate degree. Not applicable to the General Education-Breadth Requirements nor to the Liberal Studies Major. Prerequisite: ENGL 1002 or its equivalent.

3001 Advanced Writing for Non-Native Speakers of English (4)

Introduces non-native speakers to writing a variety of documents for their individual fields. Includes short research paper. Prerequisite: Satisfactory completion of freshman composition.

3003 Discursive Writing (4)

Theory and practice of expository writing; critical reading and evaluation of formal and informal prose. Designed for non-English majors. No credit toward English major requirements. Fulfills the University Writing Skills Requirement for students who began work on the present degree before Fall Quarter, 1985. Prerequisites: ENGL 1002 and junior standing. (A)

3005 Study of Language (4)

Theory of language and communication; role of language in the personal and social development of the fully "human" being; origins, development, acquisition, and diversity of language; nature and function of symbolic systems; phonology, morphology, syntax, orthography, sign language, and semantics. Prerequisite: ENGL 1001 (Y)

3010 Modern English Grammar (4)

A traditional philological description of the structure of standard written English. Prerequisites: ENGL 1001 and junior standing. (Y)

3015 Introduction to Phonology (4)

An introduction to the methods that linguistics use to describe the sound systems of the language of the world. Particular emphasis given to English sound patterns. Prerequisite: ENGL 1001. (Y)

3020 Advanced Expository Writing (4)

An advanced course in the theory and practice of expository writing. Fulfills the University Writing Skills Requirement for students who began work on the present degree before Fall Quarter, 1985. Prerequisite: ENGL 1002 and junior standing. (Y)

3030 Introduction to Semantics (4)

An introduction to the study of "meaning" in and through language. Major issues and approaches in semantic theory. Prerequisite: ENGL 3005. (A)

3040 Linguistic History of the English Language (4)

A linguistic approach to the origin and development of English, and its relations to cognate languages. Prerequisites: ENGL 1001 and junior standing. (Y)

3070 Intermediate Workshop in Fiction (4)

Imaginative prose writing, with emphasis on theory and techniques. Classroom analysis of student manuscripts and published stories; individual conferences. Prerequisites: ENGL 2070 and consent of instructor. May be repeated twice for maximum total credit of 12 units. (Y)

3071 Writing Women's Lives--A Workshop (4)

Explores forms of personal narrative, with emphasis on students' own writing. Reading includes journal entries, letters, and autobiographical writings by a diverse cross-section of American women. Cross-listed with WOST 3071. Prerequisite: ENGL 1002 and junior standing.

3075 Intermediate Workshop in Poetry (4)

Practice in form and technique; weekly manuscripts, class criticism, editorial conferences. May be taken three times for credit. (Y)

3080 Introduction to Critical Theory of Literature (4)

Examination and application of major critical approaches to literary analysis and interpretation. Prerequisites: English 2030, 2040, 2050 (or equivalents), and upper division standing in the English major.

3090 Electronic Journal Workshop (4)

Team-taught workshop in electronic publishing. Students write, edit, and produce a text-and-graphics "e-zine" for worldwide distribution on the Internet. Hands-on experience in computer graphics and writing for electronic media. Prerequisites: ENGL 1002 and junior standing.

3400 Masterworks of British Literature (4)

A selection of major works, in verse, drama, and prose fiction, from British literature of all ages, medieval to modern. Prerequisite: ENGL 1001 or equivalent.

3600 Masterworks of American Literature (4)

A selection of works, in verse, drama, and prose fiction, from American literature of all periods, colonial to modern. Prerequisite: ENGL 1001 or equivalent.

3650 Women and Literature (4)

Literary works written by women and/or images of women in literature by both female and male authors. The writings of North American authors of various ethnic and cultural backgrounds. (Y)

3670 Asian/Filipino-American Literature (4)

Five writers whose heritage is Asian/Filipino, but who are writing fiction or poetry in California.

3680 Hispanic/Latino/U.S. Literature (4)

Five writers whose heritage is Hispanic/Latino, but who are writing fiction or poetry in English in the United States.

3691 Black Literature I (4)

A comprehensive history of Black writing in America from the beginnings to 1930. Cross-listed with [E S 3691](#). Prerequisites: ENGL 1001 and junior standing. (Y)

3692 Black Literature II (4)

A comprehensive history of Black writing in America from 1930 to the present. Cross-listed with [E S 3692](#). Prerequisites: ENGL 1001 and junior standing. (Y)

3700 Classical Literature (4)

Readings in classical literature in translation: epic, lyric, satirical, and dramatic poetry of the Greeks and Romans. Prerequisites: ENGL 1001 and junior standing. (Y)

3710 Medieval Literature (4)

Literary patterns in Medieval Europe: the epic, the courtly novel, and lyric poetry, from the troubadours to Chaucer. Prerequisites: ENGL 1001 and junior standing. Cross-listed with [MLL 3710](#). (On demand)

3715 Dante's World I (4)

Interpretation and discussion of the main literary, mystical, and historical themes of Dante's *Inferno*. The work is read in translation, but with close reference to the original.

3716 Dante's World II (4)

Interpretation and discussion of the main literary, mystical, and historical themes of Dante's *Purgatorio* and *Paradiso*. The work is read in translation, but with close reference to the original.

3720 Renaissance Humanism (4)

The contribution of classical learning to the European Renaissance. Prerequisites: ENGL 1001 and junior standing. Cross-listed with [MLL 3720](#). (On demand)

3725 Petrarch and Boccaccio (4)

The legacy of Petrarch and Boccaccio. Study and interpretation of major literary themes in the works of Petrarch (*Lyric Poems*) and Boccaccio (*Decameron*) and their influence on the humanistic and Renaissance movements.

3730 The Neo-Classical Tradition (4)

The development of the neo-classical spirit in Western literature of the 17th and 18th centuries, with special reference to the literatures of France and England. Prerequisites: ENGL 1001 and junior standing. Cross-listed with [MLL 3730](#). (On demand)

3740 The Romantic Era: 1770-1830 (4)

The dominant themes and styles of romanticism, with readings from major writers. Prerequisites: ENGL 1001 and junior standing. (On demand)

3745 The Gothic (4)

The endangered heroine in English Gothic literature from *Castle of Otranto* to *Rebecca*.

3750 Realism and Naturalism, 1830-1910 (4)

Major movements in the literature of Europe in the 19th and early 20th centuries, with emphasis on a major figure or figures. Prerequisites: ENGL 1001 and junior standing. (On demand)

3760 Literature of the Twentieth Century (4)

Major movements in recent European and American literature, with emphasis on a major figure or figures. Prerequisites: ENGL 1001 and junior standing. (On demand)

3770 Gay and Lesbian Literature (4)

Study of literary works written by and about gays and lesbians.

3790 Black Literature III (4)

A study of ancient and modern Black writers from Africa, the Mediterranean, and the Caribbean. Cross-listed with [E.S. 3790](#). Prerequisites: ENGL 1001 and junior standing. (Y)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 8 units will be accepted toward the English major; a maximum of 4 units will be accepted toward the English minor. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)

4000 Seminar in English Education (2)

The integration of language, literature, and composition studies in the secondary-school curriculum, with on-site observation and supervised group discussion. Prerequisite: instructor's permission and junior standing.

4005 Informational and Instructional Technology in the English Classroom (2)

The technological resources currently available to English teachers including word-processing, data base, and spread sheet programs. Students learn to use grade-book and test-generation programs and other interactive technologies. They evaluate the effectiveness of Laser disk, CD ROM, and other technologies. Prerequisite: ENGL 4000.

4010 Current Theories in Formal Grammar (4)

Introduction to current theories in the study of formal grammar. Prerequisite: ENGL 3010.

4040 Introduction to American Dialects (4)

Regional, ethnic, and class dialects of American English. Methods and materials for dialect study in general. Prerequisite: ENGL 3005. (A)

4060 Topics in the Study of the English Language (4)

Intensive study of a single aspect of the English language, or of a group of closely related aspects. Students may repeat ENGL 4060 for a maximum of 12 units, when the content differs. Prerequisite: ENGL 1001. (Y)

4070 Advanced Workshop in Fiction (4)

Writing of long and short fiction. For the prospective professional writer. Prerequisites: ENGL 3070, and consent of instructor. May be repeated twice for a maximum of 12 units. (Y)

4075 Advanced Workshop in Poetry (4)

Writing of poetry. For the prospective professional poet. Prerequisites: ENGL 3075 and/or consent of instructor. May be repeated twice for a maximum credit of 12 units. (Y)

4080 The Art of Translation (4)

Theory and practice of translation; special problems in style, form, and imagery. Prerequisite: consent of instructor. May be repeated twice for a maximum credit of 12 units. (On demand)

4090 Project and Portfolio (4)

Preparation of a collection of new and revised work in fiction, drama, or poetry, to be read and approved by two creative writing instructors. Prerequisites: ENGL 4070 and permission of instructor.

4151 Introduction to Chaucer (4)

A close reading of The Canterbury Tales with appropriate attention to its cultural context. Prerequisite: ENGL 2040 and junior standing.

4251 Introduction to Shakespeare (4)

The dramatic conventions of the Shakespearean theatre; the Renaissance intellectual background; a survey of representative plays and poems. Prerequisite: ENGL 2040 and 2050. (A)

4260 Milton (4)

A study of Milton's poetry and selected prose. Prerequisite: ENGL 2030 and 2040. (Y)

4265 Studies in 17th Century British Literature (4)

Intensive study of selected authors or topics of the later Renaissance in England from 1600-1660. Prerequisites: ENGL 2030 and 2040. (Y)

4325 Studies in 18th-Century British Literature (4)

Intensive study of selected authors or topics of the Restoration and Neo-Classic periods. Prerequisite: ENGL 2030 and 2040. (Y)

4411 Studies in Early 19th-Century British Literature (4)

Intensive study of selected authors or topics of the Romantic period. Prerequisite: ENGL 2030 and 2040. (Y)

4412 Studies in Late 19th-Century British Literature (4)

Intensive study of selected authors or topics of the Victorian period. Prerequisite: ENGL 2030 and 2040. (Y)

4634 Studies in Early American Literature (4)

Intensive study of selected authors or topics of Colonial America and the early Republic. Prerequisites: ENGL 1001 and junior standing. (Y)

4635 Studies in Mid-19th Century American Literature (4)

Intensive study of selected authors and topics of mid-19th century America. Prerequisite: Engl. 2030 and 2040. (Y)

4636 Studies in Late 19th Century American Literature (4)

Intensive study of selected authors and topics from the Civil War to 1914. Prerequisite: ENGL 2030 and 2040. (Y)

4637 Studies in 20th Century American Literature (4)

Intensive study of selected authors and topics from 1914 to the present. Prerequisite: ENGL 2030 and 2040. (Y)

4690 Seminar in American Studies (4)

Interdisciplinary seminar on topics in American Civilization. The course is required for seniors in the American Studies Minor. Any student may enroll. May be repeated for credit with consent of instructor. Cross-listed with [History](#). (Y)

4710 Bible for Students of Literature (4)

Major events, characters, themes, and phases of the authorized (King James) version of the Bible and the influence of these upon the literature and language of the English-speaking peoples.

4720 Mythology (4)

Cosmologies and cosmogonies: readings from literatures of the Orient, the Near East, the Mediterranean, and Europe. Prerequisites: ENGL 1001 and junior standing. (Y)

4740 History of Children's Literature (4)

The development of themes, forms, and techniques in children's literature from its folk origins to the present. Prerequisite: ENGL 1001. (Y)

4745 Film Criticism (4)

Lecture/discussion with films. Written critical resumes of the work of American and international writer-directors. Study of film scripts, emphasizing characterization, themes, and techniques. Prerequisite: ENGL 1001.

(Y)

4810 English Drama Before 1642 (4)

A history of the drama from its liturgical beginnings to the closing of the theaters. Prerequisite: ENGL 2040 and 2050. (A)

4816 Modern Drama (4)

A history of English and American drama since 1890; Shaw, Wilde, and later dramatists. Prerequisite: ENGL 2050. (A)

4827 20th Century Poetry (4)

A study of representative British and American poets from 1914 to the present. Prerequisite: ENGL 2040 or consent of instructor. (Y)

4831 British Novel Before 1800 (4)

Development of the British novel from its beginnings through the 18th century. Prerequisite: ENGL 2030 and 2040. (Y)

4832 British Novel, 1800-1914 (4)

Development of the British novel through the Romantic and Victorian periods and up to the beginning of World War I. Prerequisite: ENGL 2030 and 2040. (Y)

4833 British Novel from 1914 to 1945 (4)

A study of the development of the 20th century British novel from World War I through World War II. Prerequisites: ENGL 1001 and junior standing. (Y)

4840 The Short Story (4)

Development of the modern short story in America and Europe. Prerequisite: ENGL 2030. (A)

4860 American Fiction to 1914 (4)

The development of American fiction from Cooper to Dreiser, including Poe, Hawthorne, Melville, Twain, James, and others. Prerequisites: ENGL 2030 and 2040. (Y)

4870 The American Novel, 1914-1945 (4)

Development of the 20th century American novel from World War I through World War II. Prerequisites: ENGL 1001 and junior standing. (Y)

4874 The American and British Novel, 1945-1975 (4)

Development of the American and British novel in the post-war period, 1945-1975. Prerequisite: ENGL 2030. (A)

4876 Current American and British Novel (4)

Development of the British and American novel since 1975. Prerequisite: ENGL 2030. (Y)

4900 Independent Study (1-4)

* Students should consult the section of the catalog dealing with the English Placement Test (see [Registration chapter](#)) before registering for English 1001. Because this is the freshman-level, transferable composition course (for California community colleges, colleges, and universities), students enrolling in the course should, at the time of entry, be able to write brief essays showing adequacy in (1) selection of a controlling idea appropriate to the given writing task; (2) coherent development of that idea to a reasoned conclusion; (3) use of sentences that demonstrate some structural variety and that contain language appropriate to the audience and purpose, and (4) control of the conventions of standard, written English (relative freedom from errors such as fragments, run-together sentences, faulty agreement, and improper pronoun reference) and of mechanics (capitalization, spelling, and punctuation). The work of the course is to strengthen these skills by extensive practice in the writing of expository essays suitable for college-level credit. Students deficient in these prerequisite skills will be advised to take developmental writing courses before enrolling in English 1001.

Environmental Studies [ENVT]

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- [SCHOLARSHIPS](#)
- [MAJOR REQUIREMENTS ■ B.A.](#)
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- [ENVIRONMENTAL STUDIES OPTION: LIBERAL STUDIES](#)
- [COURSES](#)

ENVIRONMENTAL STUDIES

Department of Geography and Environmental Studies
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 3021
Phone: (510) 885-3192 or 3193; FAX: (510) 885-2353

Professor:

Herbert M. Eder (Chair)

Associate Professors:

Christina L.B. Kennedy, David J. Larson, Scott Stine

Assistant Professor:

David Woo

PROGRAM DESCRIPTION

The Environmental Studies major is designed to provide an interdisciplinary and multidisciplinary overview of the environmental studies field, coupled with an in-depth study of one subfield. The core requires coursework in the sciences and social sciences and students may build options based on one or several related fields in these categories.

As part of the Environmental Studies major, students must select a 20--24 unit program of electives. Five options allow students latitude in providing specialization to a particular field of interest: Human Environment, Physical Environment, Ecology and Life Sciences, Environmental Health, and Land Use Planning and Management. Courses in these options must be distributed across three departments.

Environmental Studies majors are provided internship opportunities through assignments in public and private agencies on projects related to citizen action, environmental planning, or in research. Ten to twenty hours weekly are required. Supervision and evaluation are by agency personnel and the course is conducted by the instructor. The internship may be repeated once for credit.

CAREER OPPORTUNITIES

Administrator ■ Citizen Activist ■ Conservator ■ Consumer Affairs Specialist ■ Educator ■ Energy Impact Assessor ■ Historic Preservationist ■ Journalist ■ Lawyer ■ Legislator ■ Librarian ■ Mediator ■ Statistician

SCHOLARSHIPS

Richard and Evelyn Thoman Scholarship in Geography and Environmental Studies

One \$500 scholarship awarded for the academic year for full-time undergraduate or graduate studies. Awards are limited to students with upper division or graduate standing. A grade point average of 3.0 or higher is required, and demonstrated scholastic and creative ability in the field of Geography or Environmental Studies.

Helen C. Jacobsen Scholarship

One \$1,000 scholarship awarded for full-time undergraduate studies. Awards are limited to students with upper division standing. A grade point average of 3.0 or higher is required, and demonstrated scholastic and creative ability in the field of Geography or Environmental Studies.

MAJOR REQUIREMENTS - B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 94-103 units; the B.A. degree requires a total of 186 units.

I. Lower Division (35-38 units)

BIOL 1001-2 and 2030 or 2040 or 1301 or 1302 (9-10)
CHEM 1000 or 1100 (4-5)
GEOL 1001 and 1002 (6)
ECON 2301* (4)
ENVT 2000 (4)
GEOG 2100 or 2410 (4)
STAT 1000 or 2010 or C S 1020 or 1160 (4-5)

II. Upper Division (39-41 units)

BIOL 3031 or 3110 (4)
ECON 4306 (4)
ENVT 4100, 4300, 4800, and 4910 (14-16)
GEOG 3000 (4)
GEOG 3450** (5)
POSC 3460 and 4171 (8)

III. Program of Electives (20-24 units)

Students must select one of the following options. Five or six courses, totaling 20-24 units, distributed across at least three departments, in one of the following five options:

A. *Ecology/Life Sciences*

BIOL 3015 Natural History of Marine Organisms (4); BIOL 3031*** Nature Study (4) or BIOL 3110*** Principles of Ecology (4); BIOL 3115 Marine Biology (4), 3116 Fresh-Water Biology (5), 3210 Woody Plants of California (4), 4130 Biogeography (4); GEOG 4125 Field Course in Physical-Biotic Geography (4); MSC 4103 Marine Ecology (6); SOC 3100 Human Ecology (4)

B. *Environmental Health Option*

ANTH 1001 Mankind and Food (4), 3720 Medical Anthropology (4); BIOL 3070 Optimal Nutrition (4), 3410 Epidemiology (3), 4010 Microbes and Humanity (4); GEOG 3340 Urban Planning (4); HDEV 2001 Human Development in Contemporary Society (4); HSC 3200 Environmental Health (4); SOC 3100 Human Ecology (4)

C. *Human Environment*

ANTH 1000 Introduction to Anthropology (4), 1001 Mankind and Food (4), 2300 Cultural Anthropology (4), 3000 Anthropology in the Modern World (4); ART 4081 The City: A Collective Work of Art (4); GEOG 2300 Cultural Geography (4), 2310 Economic and Resource Geography (4), 3300 Historical Cultural Geography (4), 3330 Urban Geography (4), 3340 Urban Planning (4), 3360 Historical Geography of United States (4), 3505 Geography of California (4), 4325 Field Course in Cultural-Urban Geography(4); HDEV 2001 Human Development in Contemporary Society (4); HSC 3200 Environmental Health (4); PSYC 3500 Social Psychology (4); REC 3700 Community Organization in the Urban Setting (4), 4700 Environmental Recreation (4); SOC 3100 Human Ecology (4), 3200 Introduction to Population Analysis (4), 4450 Urban Sociology (4); STAT 3010 Statistical Methods in the Social Sciences (4)

D. *Land Use Planning and Management*

GEOG 2100 Physical Geography (4), 2310 Economic and Resource Geography (4), 3000 Resource Management (4), 3115 Physical Landscape Analysis (4), 3340 Urban Planning (4), 3410 Air Photo Interpretation (4), 3420 Field Instruments and Observation (4), 3600 Cartographic Principles & Graphic Communication (4), 4320 Energy Resources and Management (4), 4350 Water Resources and Management (4), 4425 Remote Sensing of Earth Env. (4); POSC 1400 Introduction to Public Affairs and Admin. (4); POSC 3120 State and Local Politics and Government (4) or POSC 3130 Urban Politics (4), 3800 Public Policy Analysis (4), 4147 Public Policy and the Environment (4); PUAD 4800 The Study of Public Administration (4), 4830 Organization Theory and Human Behavior (4); REC 3700 Community Organizations in the Urban Setting (4), 4300 Physical Setting of Leisure Services (4), 4700 Environmental Recreation (4)

E. *Physical Environment*

GEOG 2100**** Physical Geography (4), 3100 Regional Climatology (4), 3115 Physical Landscape Analysis (4), 4125 Field Course in Physical-Biotic Geog. (4); GEOL 2101 Physical Geology (5), 3030 Earth and Life Through Time (5), 3040 Fundamentals of Meteorology (4), 3100 Geology of the Western Nat'l Parks (4), 3110 Principles of Geomorphology (4); GEOL 1201 Introduction to Oceanography (4) or GEOL 3400 General Oceanography (4); PHIL 3331 History of Science (4), 3332 Philosophy of Science (4)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor is designed to encourage and enable students enrolled in any major to organize their elective courses around a broad study of the environment and its problems from both a social and scientific perspective. The minor consists of 36 units arranged in an integrated pattern, as approved by an advisor. The core program includes three sequential courses (totalling 12 units) which are required of all students in the minor. The remaining 24 units are electives selected from the list below.

I. Core Courses (12 units)

ENVT 2000 Intro. to Environmental Studies (4)
ENVT 4300 Environmental Field Studies (5)
ENVT 4800 Senior Seminar in Environmental Studies (3)

II. Electives in Natural Science (8 units minimum)

Two courses outside the major department, chosen from the following list, which will be expanded as relevant new courses develop:

BIOL 3110 Principles in Ecology (4); GEOL 1001 Introduction to the Earth Sciences (4), 1002 Problems in Environmental Geology (6) and GEOL 1201 Introduction to Oceanography (4), 2101 Physical Geology (5), 3040 Fundamentals of Meteorology (4); GEOG 2100 Physical Geography (4), 3100 Regional Climatology (4)

III. Electives in Social Science (8 units minimum)

Two courses outside the major department, chosen from the following list, which will be expanded as relevant new courses are developed:

ENVT 4100 Environmental Impact Analysis (4); GEOG 2300 Cultural Geography (4), 3000 Resource Management (4), 3340 Urban Planning (4); POSC 3460 Environmental Law (4), 4171 Public Policy & the Environment (4); SOC 3100 Human Ecology (4)

IV. Additional Electives (8 units minimum)

Chosen from list II or III (above) or from the following list and Independent Study projects. No more than 5 units may be in the department of the undergraduate major:

ART 3080 Modern Architecture (4), 4081 The City: A Collective Work of Art (4); BIOL 3031 Nature Study (4), 3115 Marine Biology (4), 4010 Microbes and Humanity (4), 4130 Biogeography (4); MSC/BIOL 4103 Marine Ecology (6); GEOG 2310 Economic and Resources Geography (4), 3320 Geography of World Agriculture (4), 3330 Urban Geography (4), 3340 Urban Planning (4), 4320 Energy Resources and Management (4), 4350 Water Resources and Management (4); GEOL 3400 General Oceanography (4); SOC 3200 Introduction to Population Analysis (4), 4450 Urban Sociology (4)

ENVIRONMENTAL STUDIES OPTION: LIBERAL STUDIES

Area III.B (4 units)

ENVT 2000 Introduction to Environmental Studies (4)

Area VII Credential Track, or Area VI, Liberal Arts Track (24 units)

ENVT 4100 Environmental Impact Analysis (4)
ENVT 4300 Environmental Field Studies (5)
ENVT 4800 Senior Seminar in Environmental Studies (3)

Twelve units selected from the following:

ECON 4306 Environmental Economics (4); ENVT 4910 Internship in Environmental Studies (2-4); GEOG 3000 Resource Management (4), 3100 Regional Climatology (4), 3115 Physical Landscape Analysis (4), 3320 Geography of World Agriculture (4), 3330 Urban Geography (4), 3340 Urban Planning (4), 3360 Historical Geography of the United States (4), 3400 Field Geography of the San Francisco Bay Region (4), 4320 Energy Resources and Management (4), 4325 Field Course in Cultural-Urban Geography (4), 4350 Water Resources and Management (4); GEOL 2300 Natural Disasters (4), 3000 Conservation of Natural Resources (5), 3030 Earth and

Life Through Time (5), 3110 Principles of Geomorphology (4); HSC 3200 Environmental Health (4); POSC 3460 Environmental Law (4), 4171 Public Policy and the Environment (4); SOC 3100 Seminar in Human Ecology (4)

COURSES

2000 Introduction to Environmental Studies (4)

Survey of important local, national, and world environmental problems, emphasizing a multidisciplinary approach. (A)

4100 Environmental Impact Analysis (4)

The language and changing dynamics of the environmental review process. Contents and standards of environmental impact reports and their role in the planning process. (F)

4300 Environmental Field Studies (5)

Weekly visits to various sites throughout the Greater Bay Area to observe environmental processes. Natural areas, industrial facilities, environmentally related agencies. Prerequisites: ENVT 4100 and senior standing in Environmental Studies. One hr. lect., 8 hrs. field.

4800 Senior Seminar in Environmental Studies (3)

Problem-oriented around selected topics of environmental concern, and requiring projects or reports. Prerequisites: ENVT 2000, 4300; restricted to seniors completing the major or minor in Environmental Studies. (Sp)

4900 Independent Study (1-4)

4910 Internship in Environmental Studies (2-4)

Assignments in public and private agencies on projects related to citizen action, environmental planning, or in research. Ten to twenty hours weekly. Supervision and evaluation by agency personnel and the course instructor. Students exchange ideas and experiences in weekly group sessions which are conducted by the instructor. May be repeated once for credit. Prerequisite: ENVT 2000 and consent of instructor.

* Prerequisite for ECON 4306

** Fulfills Writing Skills graduation requirement for students who began the degree in Fall 1985, or earlier.

*** If not taken as a required core course alternative.

**** If not taken as a required core course alternative.

Ethnic Studies [ES]

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- [COURSES](#)

ETHNIC STUDIES

Department of Ethnic Studies
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall, 4099
Phone: (510) 885-3255

Professors:

Michael J. Clark, Roxanne Dunbar Ortiz, Richard A. Garcia, Barbara Paige, Noel K. Samaroo

Associate Professor:

Colleen V. Fong

Lecturers:

Wendell Brooks, Viba Chandra, Richard Oyama, Terry Wilson

PROGRAM DESCRIPTION

The Department of Ethnic Studies is central to the university's commitment "to educational excellence for a diverse society." It offers a major, minors, and courses that are interdisciplinary in nature and provide a holistic approach to the study of the United States' multi-racial, multicultural, and multigender immigrant society. The department's faculty provide areas of study that integrate social science and literary theory, as well as anthropological and sociological concepts within a historical and humanistic perspective. The underlying goal of Ethnic Studies is to provide a better understanding of diversity in American culture and thought.

The Ethnic Studies major consists of a core of Ethnic Studies courses, support courses in other departments in the university, and Options in African American, Asian American, Mexican American/Latino, and Native American Studies. The curriculum is multidisciplinary as well as interdisciplinary. The major helps the student qualify for graduate work in social sciences, law, and humanities, and for work in municipal, state, and federal government. Of equal importance are the advantages the major provides to work in community service organizations concerned with opportunities and problems of various ethnic and racial groups.

CAREER OPPORTUNITIES

Affirmative Action Specialist ■ Business Executive ■ Community Development Specialist ■ Corporate Communications Director ■ Curator ■ Customer Service Representative ■ Employee Relations Representative ■ Employment Interviewer ■ Foreign Service Officer ■ Journalist ■ Immigration Specialist ■ Personnel Representative ■ Public Relations Representative ■ Salesperson ■ Teacher ■ Trainer ■ Tutor ■ Writer

MAJOR REQUIREMENTS - B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 60 units; the B.A. degree requires a total of 186 units.

I. Core Courses (16 units)

Choose four courses from:

E S 1001 Ethnic Experience in America I (4)

E S 1002 Ethnic Experience in America II: Patterns of Immigration and Migration (4)

E S 3000 Ethnic Writers (4)

E S 3030 Immigrant and Refugee Women (4)

E S 3700 Special Topics in Ethnic Studies (4)

E S 3810 History of Minority Education (4)

E S 4000 Research Seminar in Ethnic Studies (4)

II. Area Breadth Courses (24 units)

Choose two courses from each of two options and one course from each of the remaining two (with approval of advisor):

African American Studies (See African American Studies Option)

Asian American Studies (See Asian American Studies Option)

Mexican American/Latino Studies (See Mexican American/Latino Studies Option)

Native American Studies (See Native American Studies Option)

III. Support Courses (8 units)

Choose one course each from two departments on the following list:

CRJA 2600 Police Community Relations (4)

MCOM 3400 The Ethnic Media in America (4)

PHIL 3510 Human Rights and Social Justice (4)

PE 3730 Racism in Sports (4)

POSC 3130 Urban Politics (4)

POSC 3330 Interest Groups, Lobbying, and Political Reform (4)

SOC 3520 Sociology of Minority Groups (4)

SOC 4450 Urban Sociology (4)

SPCH 4830 Intercultural Communication (4)

IV. Option Courses (12 units)

Choose one of the following options. Choose three courses in the option's area of study, in consultation with an advisor.

A. African American Studies Option

E S 1100 Introduction to African American Studies (4), 2100 Blacks in the Americas (4), 2125 The Black Aesthetic (4), 2300 Blacks in Film (4), 2305 African American Folklore (4), 3003 African American Women Writers (4), 3105 African American Identity (4), 3110 Racism in America (4), 3120 The Civil Rights Movement (4), 3130 Slavery in America (4), 3145 African American Music (4), 3165 African American Sexuality (4), 3180 The World of the Black Child (4); ENGL/E S 3691,-2 Black Literature I, II (4,4); HIST/E S 3567 Blacks in the United States (4); SOC 3415 Sociology of the African American

Family (4)

B. Asian American Studies Option

E S 1500 Introduction to Asian American Studies (4), 2552 Chinese Experience in the United States (4), 2553 Southeast Asians in the United States (4), 2555 Filipino Experience in the United States (4), 3030 Immigrant and Refugee Women (4), 3551 Asian American Men and Women (4), 3555 Asian American Family Patterns (4)

C. Mexican American/Latino Studies Option

E S 1200 Introduction to Mexican American/Latino Studies (4), 2410 Mexican American/Latino Perspectives in Film (4), 3001 Mexican American/Latino Renaissance: Ethnicity from the 1960's to Present (4), 3202 Latino Writers (4), 3210 Latinas in the United States (4), 3290 Community Development (4), 3800 Peoples of Central America (4), 3805 Mexican & Latin American Immigration (4); HIST/E S 3515 The Mexican American and the American Southwest (4); SOC 3416 Sociology of the Mexican American Family (4)

D. Native-American Studies Option

ANTH 3500 North American Indians (4), 3505 Indians of California (4); E S 1300 Introduction to Native American Studies (4), 3305 Contemporary Native American Life (4), 3310 Native American World View (4), 3330 Native American Liberation Movements (4)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

African American Studies Minor (24 units)

The African American Studies minor offers the student majoring in another discipline the opportunity to obtain knowledge and understanding of America's largest racial minority and its relationship to the larger society. Students considering careers in teaching, government service, foreign affairs, business, health-science related fields, and law may find the minor compatible.

I. Lower Division (8 units)

Two of the following courses:

E S 1100 Introduction to African American Studies (4), 2100 Blacks in the Americas (4), 2125 The Black Aesthetic (4), 2300 Blacks in Film (4), 2305 African American Folklore (4), 3105 African American Identity (4)

II. Upper Division (16 units)

E S 4000 and a minimum of 12 units from the following:

E S 3003 Black Women Writers (4), 3105 African American Identity (4), 3120 The Civil Rights Movement (4), 3130 Slavery in the Americas (4); HIST/E S 3567 Blacks in the United States (4); PHIL 3510 Human Rights and Social Justice (4); SOC 3415 Sociology of the African American Family (4), 3520 Sociology of Minority Groups (4)

Asian American Studies Minor (24 units)

The Asian American Studies minor offers the student majoring in another discipline the opportunity to acquire knowledge and understanding of one of the major ethnic groups in the United States and its developing relationship to the larger society. Students considering careers in teaching, government service, foreign affairs, business, health-sciences related fields and law may find the minor compatible with their career goals.

I. Eight units from the following:

E S 1500 Introduction to Asian American Studies (4)

Plus one of the following:

E S 2552 Chinese Experience in the United States (4), 2553 Southeast Asians in the United States (4), 2555 Filipino Experience in the United States (4), 3551 Asian American Women and Men (4)

II. Eight units from the following:

E S 2552* Chinese in the United States (4), 2553* Southeast Asians in the United States (4), 2555* Filipinos in the United States (4), 3030 Immigrant and Refugee Women (4), 3551 Asian American Women and Men (4), 3555 Asian American Family Patterns (4); THEA 3311 Filipino Theatre (4)

III. Eight units selected with an advisor in Asian American Studies from the following list:

ANTH 3535 Southeast Asia (4), 3545 The Anthropology of China (4), 3550 Modern Japan; E S 1001 Ethnic Experience I (4), 1002 Ethnic Experience II (4), 3000 Ethnic Writers (4), 3110 Racism in America (4), 3120 Civil Rights Movement (4), 3810 History of Minority Education (4); (4); MLL 1601, 1602, 1603 Elementary Mandarin Chinese (4, 4, 4); 1651, 1652, 1653 Elementary Filipino (4, 4, 4); 1801, 1802, 1803 Elementary Japanese (4, 4, 4); 1751, 1752, 1753 Elementary Vietnamese (4); 2601, 2602, 2603 Intermediate Mandarin Chinese (4, 4, 4), 2801, 2802, 2803 Intermediate Japanese (4, 4, 4); GEOG 3505 Geography of California (4), 3540 Geography of Eastern Asia (4), 3550 Geography of Southeast Asia (4); HIST 3312 Modern China (4), 3323 Modern Japan (4), 3500 History of California (4), 3503 History of San Francisco Bay Area (4); POSC 3204 Political Systems of Asia (4); SOC 3417 Sociology of the Asian American Family (4); WOST 3420 Minority Women in America (4)

Mexican American/Latino Studies Minor (24 units)

The Mexican American/Latino minor offers the student majoring in another discipline the opportunity to acquire knowledge and understanding of one of the oldest, yet continuing, immigrant groups in the United States, and its developing relationship to the large society. Students considering careers in teaching, government service, foreign affairs, business, health-sciences related fields and law may find the minor compatible with their career goals.

I. Sixteen units from the following core courses:

E S 1200 Introduction to Mexican American/Latino Studies (4)

Plus 12 units from the following:

E S 3000 Ethnic Writers (4), 3201 Mexican American/Latino Renaissance: Ethnicity from the 1960's to the Present (4), 3202 Latino Writers (4), 3210 Latinas in the United States (4), 3243 Mexican American/Latino Perspectives in Film (4), 3805 Mexican and Latin American Immigration (4); HIST 3515 The Mexican-American and the American Southwest; SOC 3416 Sociology of the Mexican American Family (4)

II. Eight units from the following courses:

(Eight units from the core list may be substituted for elective courses with approval of an Ethnic Studies advisor.)

ART 3055 Ancient American Art (4), 3010 Latin American Art (4); E S 1001 Ethnic Experience I (4), 1002 Ethnic Experience II (4), 3105 Black Identity (4), 3120 The Civil Rights Movement (4), 3310 Native American World View (4), 3505 Contemporary Native American Life (4), 3800 Peoples of Central America (4), 4000 Research Seminar in Ethnic Studies (4); MLL 2401-2-3 Intermediate Spanish (4, 4, 4), 3461 Introduction to Spanish American Literature 1492-1900 (4), 3463 Introduction to Spanish-American Literature 1900-Present (4), 3495 Spanish-American Culture and Civilization (4); GEOG 3510 Geography of Mexico, Central America and the Caribbean Islands (4); HIST 3500 History of California (4); POSC

3150 Politics of California (4), 3151 Contemporary California (4), 3333 Ethnic and Minority Politics (4)

Any course (including Special Topics, or Independent Study courses) approved by an Ethnic Studies advisor can be substituted for a core, or elective course.

Native American Studies Minor (32 units)

The Native American Studies minor offers the student majoring in another discipline the opportunity to acquire knowledge and understanding of the original peoples of the United States as well as the entire Western Hemisphere and Pacific. This academic minor addresses historical, political, cultural, and intellectual issues of Native nations, providing an interdisciplinary basis for understanding the historical and contemporary problems not only of Native peoples, but of the United States as a colonial and military power.

I. Eight units from the following:

E S 1300 Introduction to Native American Studies (4)

Plus one of the following:

ANTH 1000 Introduction to Anthropology (4), 1300 Cultural Anthropology (4); E S 1001 Ethnic Experience I (4), 1002 Ethnic Experience II (4), 1200 Introduction to Mexican American/Latino Studies (4); SOC 1000 Introduction to Sociology (4)

II. Twelve units from the following:

E S 3305 Contemporary Native American Life (4), 3310 Native American World View (4), 3330 Native American Liberation Movements (4), 3800 The Peoples of Central America (4)

III. Four units from the following:

ANTH 3240 Archeology of North America (4), 3500 North American Indian (4), 3505 Indians of California (4); E S 3000 Ethnic Writers (4), 3030 Immigrant/Refugee Women (4), 3110 Racism in America (4), 3120 Civil Rights Movements (4), 3202 Latino Writers (4), 3805 Mexican and Latin American Immigration (4); HIST 3500 History of California (4), 3511 The Westward Movement (4); T ED 5038 Multicultural Education (4)

Ethnic Studies Minor (24 units)

I. Core Courses (12 units)

E S 1001 Ethnic Experience in America I: Minorities (4)

E S 1002 Ethnic Experience in America II: Patterns of Immigration and Migration (4)

Either E S 3000 Ethnic Writers (4) or E S 4000 Research Seminar in Ethnic Studies (4) or E S/WOST 3030 Immigrant and Refugee Women (4)

II. Electives

12 upper division units as approved by a member of the Ethnic Studies Department. (At least one course must be taken in each of the existing options: African American Studies Option, Asian American Studies Option, Native American Studies Option, and Mexican American/Latino Studies Option.)

AFRICAN AMERICAN STUDIES OPTION: LIBERAL STUDIES

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

E S 1100 Introduction to African American Studies (4)

HIST/E S 3567 Blacks in the United States (4)

Either E S 3110 Racism in America (4) or E S 3120 The Civil Rights Movement (4)

Three courses (12 units) from the following:

E S 3105 African American Identity (4), 3130 Slavery in the Americas (4), 3145 African American Music (4), 3165 African American Sexuality (4), 3180 The World of the Black Child (4), 3185 African American Religion (4)

ETHNIC STUDIES OPTION: LIBERAL STUDIES

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

E S 1001 Ethnic Experience in America I: Minorities (4)

E S 1002 Ethnic Experience in America II: Patterns of Immigration and Migration (4)

Either E S 3000 Ethnic Writers (4) or E S 4000 Research Seminar in Ethnic Studies (4)

Three additional upper division Ethnic Studies courses, representing three of the following areas: African American Studies, Native American Studies, Asian American Studies, and Mexican American/Latino Studies (12 units)

COURSES

Ethnic Studies Core Courses

1001 Ethnic Experience in America I: Minorities (4)

Historical and contemporary examination of the African American, Asian American, Hispanic American, and the Native American experience in America. A multidisciplinary survey of the immigration patterns, adaptations to Europeans, and present day cultural, social, and political conditions. (F, Sp)

1002 Ethnic Experience in America II: Patterns of Immigration and Migration (4)

A comparative approach to immigration and migration. The changing character of immigration and migration in United States and its sociocultural and policy implications.

3000 Ethnic Writers (4)

A critical examination of the novels of twentieth century minority American writers. Advanced principles of composition and style. Fulfills the University Writing Skills Requirement for students who began work on the present degree before Fall quarter 1985. Prerequisite: ENGL 1001 or equivalent. (Y)

3030 Immigrant and Refugee Women (4)

Continuities and discontinuities in the ethnic female experience in America. Prominent stereotypes of ethnic women, patterns of courtships and marriage, employment and career trends, birth control and sexual freedom, and feminism and racial solidarity. Not open to those with credit for E S 3936 or WOST 3930. Cross-listed with [WOST 3030](#).

3700 Special Topics in Ethnic Studies (4)

Topics of current interest in Ethnic Studies. May be repeated for a maximum of 8 units. Prerequisite: Consent of instructor.

3810 History of Minority Education (4)

Interdisciplinary analysis of the development and the rise of a multi-ethnic society. Focus on the development of educational opportunities for minorities and women.

4000 Research Seminar in Ethnic Studies (4)

Nature and application of the scientific method in Ethnic Studies research. Descriptive and analytic procedures employing statistical, historical, and comparative methods. Use of research instruments such as interview, questionnaire, and observation. Prerequisite: completion of two upper division Ethnic Studies courses.

African American Studies Courses

1100 Introduction to African American Studies (4)

A historical, multidisciplinary overview of the field. Focus on the socio-political and cultural experience of African Americans in the United States. (Y)

2100 Blacks in the Americas (4)

The historical, cultural, socioeconomic and political dimensions of the Black presence in the Americas, i.e., North and South America, and the Caribbean; 1619 to date. Emphasis on cross-cultural analysis with the objective to further understand the present day dynamics among these diverse groups in the "New World." (A)

2125 The Black Aesthetic (4)

Survey of African American literature, music, dance, theatre, etc. Emphasis on black art forms in the Americas.

2300 Blacks in Film (4)

A critical examination of historically significant black films, from 1915 to the present. Comparative and interdisciplinary in approach. The impact of the minstrel theatre tradition on early black films, the role of independent film producers and directors in creating alternative and more multidimensional images of blacks, and the more recent crossover tradition in American films. Representative films from each decade.

2305 African American Folklore (4)

Survey of major genres of African American folk culture, i.e., tales, songs, jokes, etc. Focus on African American folk tradition, as artifact and performance form.

3003 African American Women Writers (4)

Literary works by African American women. Emphasis on the interaction of race, gender, and literary theory. Analysis of recent topical trends in Black American female literature, and the changing structure of the American literary canon.

3105 African American Identity (4)

A study of the unique psychology which evolved as a result of the Black experience in America and how it is related to the basic processes of human behavior. (Y)

3110 Racism in America (4)

An examination of racist attitudes, behavior, and policies of America and Americans. (Y)

3120 The Civil Rights Movement (4)

The historical, socioeconomic and political development of the major civil rights movements in the United States. (Y)

3130 Slavery in the Americas (4)

The African slave trade and slavery. Emphasis on the relations among the institutions of slavery, racism and capitalism. (A)

3145 African American Music (4)

Organization and development of the types, forms and styles of music as they relate to the history of the African American. (Y)

3165 African American Sexuality (4)

The historical impact of African sexual attitudes and practices on both the European and the slave. The

subsequent social and structural development in this society of contemporary African American sexual attitudes and behaviors. Within this context, a critical analysis of longheld sexual stereotypes and related problems in reference to African Americans will be provided. (Y)

3180 The World of the Black Child (4)

The impact of a variety of socializing agents on the mental and emotional development of the Black child in this society. Emphasis on a critical examination of the growing body of research and related theory and its practical application to Black children.

3567 Blacks in the United States (4)

(See [HIST 3567](#) for course description.)

3691 Black Literature I (4)

(See [ENGL 3691](#) for course description.)

3692 Black Literature II (4)

(See [ENGL 3692](#) for course description.)

3790 Black Literature III (4)

(See [ENGL 3790](#) for course description.)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Ethnic Studies major; a maximum of 4 units will be accepted toward the minor. CR/NC only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

3981 Development of African Civilization (4)

A survey of the historical, political and socioeconomic aspects of African civilization; contributions to human thought and the arts.

4900 Independent Study (4)

Asian American Studies Courses

1500 Introduction to Asian American Studies (4)

Introduction to the Asian American experience from an interdisciplinary perspective including: the popularized version of Asian Americans as a "model minority," the theoretical, the statistical, the historical, and the personal. Critical analysis and discussion of the position Asian Americans hold in society.

2552 The Chinese Experience in the United States (4)

Theoretical and descriptive study of the Chinese experience in the United States from the nineteenth century "bachelor" societies to the most recent immigrants and refugees. Special attention given to diversity among Chinese Americans -- by generation, social class, gender, year and condition of entry, and place of residence.

2553 Southeast Asian Experience in the United States (4)

Various causes of Southeast Asian migration to the United States, particularly post-1975. Comparisons between various Southeast Asian groups in regard to the conditions under which they left their homelands, resettlement and adjustment in the United States, and their relationships with mainstream institutions.

2555 Filipino Experience in the United States (4)

Historical and contemporary experiences of Filipinos in the United States within the context of American national and foreign policy from various theoretical and descriptive perspectives.

3551 Asian American Women and Men (4)

Through a survey of changing images and roles of Asian women and men in the United States, course explores how gender has been socially constructed. Conceptions of masculinity and femininity will be treated as relational and comparisons will be made between Asian Americans and other racial groups.

3555 Asian American Family Patterns (4)

The family is conceptualized as an adaptable institution. How changes in larger society--immigration, race relations, gender roles--affect the Asian family in the United States. Topics include "bachelor" communities, picture brides, and interracial relationships. Not open to students with credit for SOC 3417.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Ethnic Studies major; a maximum of 4 units will be accepted toward the minor. CR/NC only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

4900 Independent Study (1-4)

Mexican American/Latino Studies Courses

1200 Introduction to Mexican American/Latino Studies (4)

A historical, multidisciplinary overview of the field. Focus on the socio-political and cultural experiences of Chicanos/Latinos in the United States.

3201 Mexican American/Latino Renaissance: Ethnicity from the 1960's to Present (4)

A historical examination of the rise of ethnicity in the United States from the 1960's through the present, with a specific emphasis on the Mexican American/Latino Renaissance. Ethnicity as a phenomenon within the intellectual and cultural patterns of thought in the post modern period in the United States and Latin America.

3202 Latino Writers (4)

The writings, literary topics, and especially the novels of twentieth century Chicano writers.

3243 Mexican American/Latino Perspectives in Film (4)

Integrated combination of film screenings, lectures, classroom discussions, and readings on the Mexican American/Latino experience and theory of cinema. Students screen seminal film works in the areas of documentary, narrative and experimental film making, and develop critical perspectives as a reflection of the values of society.

3210 Latinas in the United States (4)

Examines historically, culturally, and theoretically the condition of Latinas in the United States.

3290 Community Development (4)

Supervised field work in Mexican American/Latino communities. Provides a variety of learning experiences in community agencies, organizations, or educational institutions. Regular meetings with faculty sponsor and written reports required. Repeatable for maximum 12 units credit.

3800 Peoples of Central America (4)

The developmental relationship between United States' communities of Central America origin and contemporary Central America. Focus on historical, socioeconomic, and cultural factors, as well as nationalistic movements, economic dependence, migration patterns (to the United States) and social change.

3805 Mexican and Latin American Immigration (4)

An examination of Mexican, Puerto Rican and Latin American immigration to the United States from a comparative political-economic perspective.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Ethnic Studies major; a maximum of 4 units will be accepted toward the minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

4900 Independent Study (1-4)

Native American Studies Courses

1300 Introduction to Native American Studies (4)

Survey of the Native American experience in North America. Topics covered: History, education, religion, socioeconomic conditions, and psychology. Results of cultural contact. (Y)

3305 Contemporary Native American Life (4)

Social and economic conditions of contemporary American Indian Life. Stereotypes, discrimination, poverty, and their effects on individuals. Contemporary social movements. (Y)

3310 Native American World View (4)

A comparative study of Native American belief systems, world views, and religions, analyzing their roles and importance in Indian life. (Y)

3330 Native American Liberation Movements (4)

Study of Native American movements aimed at liberation from the effects of European conquest. Social and political problems of political domination. Prerequisite: E S 1300 or consent of instructor.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Ethnic Studies major; a maximum of 4 units will be accepted toward the minor. CR/NC only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

4900 Independent Study (1-4)

* If not taken to fulfill (I.) above.

General Studies [GS]

- [UNIVERSITY SEMINAR](#)

GENERAL STUDIES

G S 1000 Committee
Curriculum and Academic Programs
Office: Warren Hall, Room 859
Phone: (510) 885-3716

Director:

Valerie Helgren-Lempesis (Teacher Education)

UNIVERSITY SEMINAR

The following course is required of all undergraduate students with fewer than 15 quarter units (excluding credit-by-examination) at the time of enrollment at Cal State Hayward. G S 1000 must be taken in the first quarter of enrollment if it is Fall or Winter quarter. Students who first enroll Spring or Summer quarter must take G S 1000 the following Fall quarter.

1000 University Seminar (2)

Introduction to the University, academic issues, and career planning. The nature of higher education, academic programs and graduation requirements, academic policies. Advising, scheduling, and study skills. Student services, activities, and responsibilities. A-F grading only. (F, W)

Geography [GEOG]

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- [UNDERGRADUATE COURSES](#)

GEOGRAPHY

Department of Geography and Environmental Studies
School of Arts, Letters, and Social Sciences
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Phone: (510) 885-3192, 885-3193 FAX: (510) 885-2353

Professor:

Herbert M. Eder (Chair)

Associate Professors:

Christina L.B. Kennedy, David J. Larson, Scott Stine

Assistant Professor:

David Woo

PROGRAM DESCRIPTION

Geography is the study of the spatial distributions and spatial relations within the human-environment system. Attention is focused on historic and contemporary human activities within the context of the physical-biotic and cultural environment, and on humanity as one of the major agents of change of the earth's surface. A curriculum in Geography helps students understand the world's landscape and how it has been transformed or altered by either the earth's natural processes or human modifications.

At Cal State Hayward, students can choose between a Bachelor of Science (B.S.) degree and a Bachelor of Arts (B.A.) degree with a major in Geography. A B.S. degree major is appropriately suited for students with career objectives in the professional field of Geography. It is also highly recommended for those planning to enter a graduate school program in Geography. Obtaining a Bachelors of Arts degree major provides for a liberal education, and prepares students for positions in business, government, foreign service, and especially teaching. Combining geography with coursework in other social sciences or with other science fields is excellent preparation for teachers in secondary education. Both majors require 61 units, 16 lower division and 45 upper division.

CAREER OPPORTUNITIES

Aerial Photo Interpreter ■ Agricultural Geographer ■ Archaeologist ■ Cartographer ■ Census Analyst ■ Climatologist ■ Community Development Specialist ■ Demographer ■ Ecologist ■ Economic Development Analyst ■ Environmental Analyst/Planner ■ Map Curator ■ Recreational Resource Planner ■ Seismologist ■ Soil Conservationist ■ Transportation Planner ■ Urban Geographer ■ Zoning Specialist/Surveyor

FEATURES

With the arrangement of a faculty advisor, students in the Bachelor of Science program can select from the following fields of concentration: biogeography, cartography, cultural geography, economic geography, historical geography, history and philosophy of geography, physical geography, regional geography.

The department also offers a Certificate Program in Cartographic Communication for those wanting to learn skills and methods in data collection, interpretation, and analysis as well as the design, compilation, production, and reproduction of maps.

Geographic internships are available. Individual students may be assigned to public, private, or volunteer agencies.

SCHOLARSHIPS

Richard & Evelyn Thoman Scholarship in Geography and Environmental Studies

One \$500 scholarship awarded for the academic year for full-time undergraduate or graduate studies. Awards are limited to students with upper division or graduate standing. A grade point average of 3.0 or higher is required, and demonstrated scholastic and creative ability in the field of Geography or Environmental Studies.

Helen C. Jacobsen Scholarship

One \$1,000 scholarship awarded for full-time undergraduate studies. Awards are limited to students with upper division standing. A grade point average of 3.0 or higher is required, and demonstrated scholastic and creative ability in the field of Geography or Environmental Studies.

MAJOR REQUIREMENTS - B.A.

The major consists of 61 units in geography; the B.A. degree requires a total of 186 units.

I. Lower Division (16 units)

- GEOG 2100 Physical Geography (4)
- GEOG 2300 Cultural Geography (4)
- GEOG 2310 Economic and Resource Geography (4)
- GEOG 2410 Introduction to Maps (4)

II. Upper Division (45 units)

- GEOG 3400 Field Geography of the S. F. Bay Region (4)
- GEOG 3450* Literature and Research Aids (5)
- GEOG 4800 Growth of Geographic Thought (4)

One Physical Course (4 units) selected from:

GEOG 3100 Regional Climatology

GEOG 3115 Physical Landscape Analysis

One Technical Course (4 units) selected from:

GEOG 3410 Air-Photo Interpretation

GEOG 3600 Cartographic Principles

One Cultural Course (4 units) selected from:

GEOG 3300 Historical Cultural Geography

GEOG 3330 Urban Geography

One Resource Course (4 units) selected from:

GEOG 3000 Resource Management

GEOG 3320 Geography of World Agriculture

GEOG 4320 Energy Resources and Management

GEOG 4350 Water Resources and Management

One Regional Course (4 units) selected from 3500 series, except GEOG 3525

Plus 12 units of electives in geography, including not more than 4 additional units in the 3500 series, and to include at least 4 units of the 4000-level series

Note: The following courses or their equivalents have to be completed if a student in the B.A. program in Geography desires to enter the M.A. degree program in Geography:

GEOG 3410 Air-Photo Interpretation

GEOG 3420 Field Instruments and Observation, or a departmental examination of competence in field observation and report writing

GEOG 3600 Cartographic Principles

III. Proficiency Requirements

Proficiency in reading a foreign language, at the first-year level, must be demonstrated by successful completion of a departmental examination; or proficiency in statistics, at the level of a 3000-series course, must be demonstrated by passing an examination set by the Statistics Department; or proficiency in Mathematics, at the level of Calculus III, must be certified by the Department of Mathematics and Computer Science. These examinations will be given once each quarter during the first week of instruction. Appropriate coursework will be recommended to students who do not pass an examination.

MAJOR REQUIREMENTS - B.S.

The major consists of 61 units in Geography; the B.S. requires a total of 186 units.

I. Lower Division (16 units)

GEOG 2100 Physical Geography (4)

GEOG 2300 Cultural Geography (4)

GEOG 2310 Economic and Resource Geography (4)

GEOG 2410 Introduction to Maps (4)

II. Upper Division (45 units)

GEOG 3410 Air-Photo Interpretation (4)

GEOG 3420 Field Instruments & Observation (4)

GEOG 3450* Literature and Research Aids (5)
GEOG 3600 Cartographic Principles (4)
GEOG 4800 Growth of Geographic Thought (4)

One Physical Course (4 units) selected from:
GEOG 3100 Regional Climatology
GEOG 3115 Physical Landscape Analysis

One Cultural Course (4 units) selected from the group comprising the 3300 series

One Field Course (4 units) selected from:
GEOG 4125 Field Course in Physical-Biotic Geography
GEOG 4325 Field Course in Cultural-Urban Geography

Two Regional Courses (8 units) selected from the 3500 series, except GEOG 3525

Plus 4 units of electives in Geography, in the 4000 series

III. Proficiency Requirements

Proficiency in reading a modern language, at the first-year level, must be demonstrated by successful completion of a departmental examination; or proficiency in statistics, at the level of a 3000 series course, must be demonstrated by passing an examination set by the Statistics Department; or proficiency in Mathematics, at the level of Calculus III, must be certified by the Department of Mathematics and Computer Science. These examinations will be given once each quarter during the first week of instruction. Appropriate coursework will be recommended to students who do not pass an examination.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 36 units.

GEOG 2100, 2300, 3410 (12 units)

Two regional courses (3500 series) from different instructors (8 units)

Four courses from one of the following groups (16 units):

- A. Human Geography Option: GEOG 2310, 3300, 3320, 3330, 3360
- B. Physical-Biotic Resources Option: GEOG 3100, 3115, 4320, 4350

CERTIFICATE IN CARTOGRAPHIC COMMUNICATION

The Cartography Certificate Program consists of 20 units. It is designed to prepare students in methods of data collection, interpretation, and analysis as well as the design, compilation, production, and reproduction of maps, thus enabling students to be current in the field of cartography.

GEOG 2410 Introduction to Maps (4)
GEOG 3410 Air-Photo Interpretation (4)
GEOG 3600 Cartographic Principles and Graphic Communication (4)
GEOG 3605 Computer Cartography (5)
GEOG 3420 Field Instruments and Observation (4)
GEOG 4425 Remote Sensing of Earth Environments (4)

GEOGRAPHY OPTION: LIBERAL STUDIES

Area I (8 units)

Two of the following:

GEOG 2100 Physical Geography (4), 2300 Cultural Geography (4), 2310 Economic and Resource Geography (4)

Area VII, Credential Track, or Area VI, Liberal Arts Track (23-24 units)

GEOG 2410 Map Reading and Interpretation (4)
GEOG 3400 Field Geography of the San Francisco Bay Region (4)
Either GEOG 3500 Geography of the United States and Canada (4) or GEOG 3505 Geography of California (4)

One of the following (4 units):

GEOG 3100 Regional Climatology (4), 3115 Physical Landscape Analysis (4), 4125 Field Course in Physical-Biotic Geography (4)

One of the following (4 units):

GEOG 3300 Historical Cultural Geography (4), 3320 Geography of World Agriculture (4), 3330 Urban Geography (4), 3340 Urban Planning (4), 3360 Historical Geography of the United States (4), 4325 Field Course in Cultural-Urban Geography (4)

One of the following (3-4 units):

GEOG 3000 Resource Management (4), 3470 Travel and Tourism (3), 4320 Energy Resources and Management (4), 4350 Water Resources and Management (4)

UNDERGRADUATE COURSES

Introductory

1000 Introduction to Geography (4)

Basic aspects of modern geography: human-environment interactions; regional mosaic of the physical and cultural landscapes of the earth. (A)

2100 Physical Geography (4) [CAN GEOG 2]

Major components of the physical environment, including landforms, climate, vegetation, and soils. Three hrs. lect., 2 hrs. act. (F)

2300 Cultural Geography (4) [CAN GEOG 4]

Thematic introduction to the cultural systems operating to change the earth's surface; contemporary topics of human population, technology, social organization, spatial interaction, communication, and ideology. One half-day field trip required. (W)

2310 Economic and Resource Geography (4)

Location and linkages of economic activities as they relate to resource management. How goods and services produced by and for humans are geographically organized. Special emphasis on the historical antecedents of contemporary economic processes and international issues. (Sp)

2410 Introduction to Maps (4)

Reading and interpretation of commonly used maps; map appreciation, design, and evaluation; art of map-making. Two hrs. lect., 4 hrs. act. (F)

3000 Resource Management (4)

The earth as a source of land, water, biotic, mineral and energy resources. The role of human populations in their use, development, and exploitation. (A)

Intermediate**3100 Regional Climatology (4)**

World-wide survey, analysis, and comparison of medium and large scale climates; climate classification; man-climate relations; applied climatology. Prerequisite: GEOG 2100 (W)

3110 Principles of Geomorphology (4)

(See [Geology section](#) for course description.)

3115 Physical Landscape Analysis (4)

The geomorphic evolution of the landscape with emphasis on the late Cenozoic. Processes and landscape histories, especially as they relate to climate and climatic change. One all-day Saturday field trip required. Prerequisite: GEOG 2100. Two hrs. lect., 4 hrs. act. (W)

3120 Climatic Change (4)

Late Cenozoic changes and variations in climate with emphasis on the geological, geomorphological, and biotic records. Causes (natural and anthropogenic) and consequences (natural and cultural) of climate change. Prerequisites: GEOG 3115 or 4130 or consent of instructor.

3300 Historical Cultural Geography (4)

Evolutionary perspective on the origins and expansion of cultural institutions that have shaped landscapes; processes of discovery, invention, diffusion, cooperation/competition that have humanized the earth. One all-day field trip required. Prerequisite: GEOG 2300 or equivalent. (Y)

3320 Geography of World Agriculture (4)

Global agricultural systems and regions; environmental constraints and cultural practices; changing patterns of global and regional crop production. (Y)

3330 Urban Geography (4)

Contemporary Western, chiefly American, urbanism as a dynamic spatial phenomenon; functional structure of cities, spatial interaction, urban settlement patterns, urban environmental quality with regional comparisons. (Y)

3340 Urban Planning (4)

Overview of planning processes conducted at county and city levels. Includes legal background, administrative processes, planning issues, research methods and case studies. It is recommended that GEOG 3330 be taken before GEOG 3340. (Y)

3360 Historical Geography of North America (4)

Historical-geographic processes of exploration, migration, settlement, urbanization, cultural integration, land use and resource exploitation from the 15th through the 20th centuries. (Y)

3370 The American Landscape (4)

The evolution and interpretation in form and meaning of rural and urban American landscapes with an emphasis on how to read them as records of social and cultural processes.

3400 Field Geography of the San Francisco Bay Region (4)

A wide range of field experiences in observing, analyzing, and understanding the spatial aspects of physical and cultural interactions of the Bay Area as a region. Prerequisites: GEOG 2100 or 2300 or 2310. Eight hrs. act. (Sp)

3405 Field Regional Geography (1)

Reconnaissance field study of geography of selected areas in California and adjoining regions. May be repeated but no more than two units may be applied to Geography major. Must be taken CR/NC. Thirty hrs. field/lab. (Y)

3410 Air-Photo Interpretation (4)

The principles of airborne remote sensing and image interpretation for environmental resource management. Hands-on experience in photogrammetric stereoscopy and image measurement of spatial data. Two hrs. lect., 4 hrs. act. (W)

3415 Interpretation of Maps (4)

Advanced map reading and analysis. Interpretation of geology, landforms, climate change, and landscape history from topographic and bathymetric maps. Prerequisite: GEOG 3115 or equivalent or consent of instructor. Two hrs. lect., 4 hrs. act.

3420 Field Instruments and Observation (4)

Utilization of field instruments and methods of field observation; collection and analyses of field data and its organization and presentation in graphic and written forms. Prerequisite: consent of instructor. Eight hrs. act.; field work. (F)

3450 Literature and Research Aids (5)

Seminar in the basic geographical and environmental literature, source materials and research methods. Intensive exercises in both written and oral communication. Fulfills the University Writing Skills requirement for students who began work on the present degree before Fall Quarter, 1985. (F)

3470 Travel and Tourism (3)

Principles of effective travel; analyses of selected international tourist regions; problems of tour planning; environmental impact of tourist facilities and travel patterns; California as a tourist destination. (Y)

3500 Geography of the United States and Canada (4)

Systematic analysis of the distinctive human-use regions of the United States and Canada emphasizing their character, personality, and economic profile. Case studies of resource use dilemmas. (Y)

3505 Geography of California (4)

The natural and cultural processes which have shaped the landscape of contemporary California. California's varied environments, especially how they have been perceived, modified, and significantly altered by humans. (F, Sp)

3510 Geography of Mexico, Central America, and the Caribbean Islands (4)

Historical and contemporary overview of the Middle American region, including studies of the environment, human occupancy and settlement patterns, and economic activities; problems of resource utilization. (Y)

3515 Geography of South America (4)

Distinguishing characteristics among the Andean countries of Spanish heritage, the Guianas, and the largest

country -- Brazil. (Y)

3525 Geography of the California Wine Country (3)

The physical, historical, and economic bases of California's wine industry: growing regions, wine types, distribution of vineyards and wineries, and recent developments. Optional field trips. Those students over 21 years of age who wish to participate in wine-tasting will be charged a miscellaneous course fee. Please consult the quarterly *Class Schedule* for the current fee. (F, Sp)

3526 Field Geography of the California Wine Country (1)

Three Saturday field trips to selected California wine producing regions. Must be taken CR/NC. Prerequisite: Concurrent or prior enrollment in GEOG 3525. (F, Sp)

3540 Geography of East Asia (4)

East Asia as a geographic region, including cultural and economic reform, transformation of regional identity. Studies of contemporary China, Japan, South Korea, and Taiwan as modern industrial powers. Regional role in geopolitics and the global economy. (Y)

3590 Geography of Europe (4)

The geographic conditions in Europe west of the U.S.S.R., and their relationship to current economic, social, and political problems. (Y)

3600 Cartographic Principles and Graphic Communication (4)

Fundamentals of map design and production. Emphasis on the humanistic and technical aspects of cartography. The essence of the map communication theory and gestalt theory of human perception; effective symbolization of spatial data. One hr. lect., 6 hrs. act. (W)

3605 Computer Cartography (5)

Introduction to the principles of modern digital cartography. Hands-on experience in computer mapping. Basic concepts, software, hardware of computer cartography; spatial data structure and database management; and lab-oriented software applications. Prerequisites: GEOG 2410 and 3600. Two hrs. lect., 6 hrs. act.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Geography major; a maximum of 4 units will be accepted toward the Geography minor. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)

Advanced

4125 Field Course in Physical-Biotic Geography (4)

Problems and methods in the analysis, mapping and interpretation of the physical and biotic landscape, stressing interrelationships and change through time. Prerequisite: GEOG 2100 and consent of instructor. Eight hrs. act. (Y)

4130 Biogeography (4)

(See [BIOL 4130](#) for course description.)

4320 Energy Resources and Management (4)

Distribution of sources, production trends, use patterns, potentials of water, wind, volcanic, tidal, solar, and other sources of power; emphasis upon fossil fuels and nuclear energy. Prerequisite: GEOG 2310 (Y)

4325 Field Course in Cultural-Urban Geography (4)

Problems and methods of analysis of the human impact on the landscape; spatial co-variation of rural, suburban, and urban landscapes and their interaction. Prerequisite: Consent of instructor and either GEOG 2300 or 3330

Eight hrs. act. (Sp)

4350 Water Resources and Management (4)

The historical, geographical, legal, and economic bases for the distribution and allocation of water, stressing California and the arid west; the environmental impact of water use; past and current issues and controversies in water distribution and redistribution. (Y)

4425 Remote Sensing of Earth Environments (4)

Introduction to remote sensing applications on earth resource management. Focus on non-photographic earth observation systems such as near-infrared, thermal-infrared, and radar. Principles of remote sensing; types of imaging systems; and digital image processing. Prerequisites: GEOG 3410 and consent of instructor. Two hrs. lect., 4 hrs. act. (Sp)

4600 Introduction to Geographic Information Systems (5)

Introduction to spatial database management technology using computers to capture, store, update, manipulate, analyze, and display geographically referenced information for decision-making purposes. Prerequisite: GEOG 3605. Two hrs. lect., 6 hrs. act. (Sp)

4605 Environmental Applications of GIS (4)

Interdisciplinary applications of GIS technology on the mapping, monitoring, analysis, management and conservation of environmental resources such as water, land use, agriculture and wildlife. Prerequisite: GEOG 4600. Two hrs. lect., 4 hrs. act.

4800 Growth of Geographic Thought (4)

Seminar in history and philosophy of geography; its place among the sciences and humanities, major contributors to the development of modern scientific geography. Prerequisite: GEOG 3450 and senior standing. (Sp)

4900 Independent Study (1-4)

* Fulfills Writing Skills Graduation Requirement for students who began working on the degree in Summer 1985, or earlier.

Geology [GEOL]

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- [MINOR REQUIREMENTS](#)
- [UNDERGRADUATE COURSES](#)

GEOLOGY

Department of Geological Sciences
School of Science
Office: North Science 329
Phone: (510) 885-3486

Professors:

Elwood R. Brooks, Sue E. Hirschfeld, Leigh W. Mintz, Alexis N. Moiseyev, Detlef A. Warnke (Chair)

Associate Professor:

Anna V. Buising

Assistant Professor:

Nancy E. Fegan

PROGRAM DESCRIPTION

Geology is the study of the earth and of life and the natural processes occurring in or on the earth through time. Along with studying the impacts of human activities on the environment, students can learn about the causes of earth processes such as earthquakes, volcanoes, the formation of mountains, the effect of erosion and deposition, and the formation of rocks and minerals and their uses. Coursework combined with observations on field trips provide Cal State Hayward students with an understanding of natural processes and the human impact on the environment.

The undergraduate degree programs consist of required courses plus electives designed to meet the needs of students with objectives ranging from employment at the Bachelor's degree level, through preparation for a secondary school teaching credential, to graduate study in Geology. A B.S. major in Geology is the primary, professional program in Geology, and serves as preparation for employment in the field, usually on a technical level; those wishing to do independent geological work should plan on graduate study. The B.A. degree major is designed for persons who do not necessarily plan to become professional geologists or to go on to graduate work. (Note: Transfer from the B.A. to the B.S. program or vice versa can be accomplished.) Persons who graduate with the B.A. degree major in Geology must complete additional coursework equivalent to the B.S. requirements before they are admissible into the graduate program.

CAREER OPPORTUNITIES

Engineering Geologist ■ Environmental Geologist ■ Geochemist ■ Geologist ■ Geophysicist ■ Hydrologist ■ Mineralogist ■ Paleontologist ■ Park Ranger ■ Petrologist ■ Seismologist ■ Soils Engineer ■ Stratigrapher ■ Oceanographer

FEATURES

The Geological Sciences Department offers a summer field course in the White Mountains and the northern Sierra Nevada. Many opportunities for field and laboratory research exist throughout northern California and elsewhere.

The Cummings Geology Club, a student organization, sponsors a variety of activities including speakers, field trips, employment workshops, and student-faculty gatherings. The club is an important part of department life, providing students with opportunities to make professional contacts, to explore graduate school and professional options, and to enjoy the company of others with similar interests. For more information, contact the faculty advisor or the current club president at (510) 885-3486.

Students completing the Geology major may apply four (4) units of mathematics and eight (8) units of chemistry (or physics) to the Natural Sciences and Mathematics requirement (Area B) in their General Education Requirements. (See the General Education Evaluator and *Class Schedule* for more information.)

MAJOR REQUIREMENTS ■ B.S.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 112 units; the B.S. degree requires a total of 190 units.

I. Core Courses (79-82 units)

CHEM 1101, 1102, 1103 (15 units)

MATH 1304* (4 units)

PHYS 1001, 1002, 1003 or PHYS 2701, 2702, 2703** (12-15 units)

GEOL 2101 (5 units)

GEOL 3030, 3610, 3611, 3701, -2, 3730, 3810, 3910 (33 units)

GEOL 4800 and/or GEOL 4900 (2 units)

GEOL 4820 (8 units)

II. Electives (30-33 units)

Thirty to thirty-three units, depending on physics sequence completed, from among the courses listed below. At least 10 units must be in 4000 level geology courses. Up to 12 of the elective units may be satisfied with appropriate courses in Biological Sciences, Chemistry, Mathematics and Computer Science, Physics, and/or Statistics **approved in advance by a faculty advisor.**

GEOL/GEOG 3110

GEOL 3200 (not more than 4 units), 3400

GEOL 4010, 4110, 4120, 4310, 4320, 4400, 4800 (not more than 4 units), 4830, 4900, 4910 (not more than 4 units for 4900 and 4910 **combined**)

Students interested in a specific subdiscipline (e.g., applied geology, oceanography, geochemistry) are urged to consult the appropriate departmental faculty advisor to ensure an appropriate choice of electives.

Note: Course substitutions made after arrival at Cal State Hayward must have prior written approval of the faculty advisor.

MAJOR REQUIREMENTS - B.A.

The major consists of 78 units; the B.A. requires a total of 186 units.

I. Core Courses (61-63 units)

CHEM 1101, 1102, 1103 (15 units) and
PHYS 1700, 1780 (5 units)

or

CHEM 1100 (5 units) and
PHYS 2701, -2, -3 (12 units) and
MATH 1300 (4 units)

GEOL 2101 (5 units)

GEOL 3030, 3610, 3611, 3701, 3702, 3730, 3810, 3910 (33 units)

GEOL 4800 and/or GEOL 4900 (3-4 units depending on chemistry and physics group completed) (3-4 units)

II. Electives (16 units)

Any additional geology courses at the 3000 and 4000 level, except GEOL 3020, 3040, 3050, 3051, 3100, and 3898. At least two courses must be at the 4000 level (no more than 4 units of GEOL 4900 may be applied).

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 26-27 units.

I. Core Courses

GEOL 2101, 3030 (10 units)

II. Electives

One lower division elective, GEOL 1002 or 1201 (2-4 units)

Three upper division Geology electives, chosen with assistance of minor advisor (12-15 units)

UNDERGRADUATE COURSES

1001 Introduction to the Earth Sciences (4)

Composition, structure and evolution of the earth. Interactions of lithosphere, hydrosphere, and atmosphere. Relations

of geologic systems, hazards, and resources to human environment and future. (A)

1002 Environmental Geology Laboratory (2)

Investigations of environmental geologic problems in the greater San Francisco Bay area, including earthquake and volcanic hazards, flooding, landslides, and shoreline erosion. Not for Geology major credit. Prerequisite: GEOL 1001, 2101, 2300 or 3300 or concurrent enrollment in any of these courses. One hr. lect., two hrs. lab activity. (A)

1201 Introduction to Oceanography (4)

Origin of ocean basins, nature of the sea floor, physical/chemical characteristics of sea water, ocean currents, marine life, relationships between humans and the sea. Not for Geology major credit. (A)

1202 Oceanography Laboratory (2)

Introductory laboratory exercises in principles of oceanography, including distribution of temperature and salinity, currents, sea-floor topography, bottom sediments, waves and tides, and beach dynamics. Not applicable to the Geology majors. Prerequisite: prior or concurrent enrollment in GEOL 1201. One hr. lect., two hrs. lab activity. (A)

2101 Physical Geology (5)

[CAN GEOL 2]

Nature and distribution of earth materials, the processes by which the materials are formed and altered, and the nature and development of the landscape. Four hrs. lect., 3 hrs. lab.; one Saturday or Sunday field trip. (F, Sp)

2300 Natural Disasters (4)

Geologic processes and their effects on human populations. Topics include earthquakes, landslides, volcanic eruptions, coastal erosion, floods, atmospheric and water pollution. Not for geology major credit. Designed for Physical Science G.E. students. (Tent. Sp)

3020 Gemstones (4)

Introduction to the most common mineral gemstones, including folklore, natural occurrences, properties and identification. Properties and origins of synthetic and artificial counterfeits of these gemstones. Not for Geology major credit. (F)

3030 Earth and Life Through Time (5)

Principles of interpretation of earth history. Study of plate tectonics and sea-floor spreading as related to the development of continents, ocean basins, and mountain belts. Origin, evolution and diversification of life through time. Prerequisite: a course in physical or general geology is highly recommended. Three hrs. lect., 6 hrs. lab.; field trip(s). (F)

3040 Fundamentals of Meteorology (4)

Utilization of physical science principles in the study of the structure and circulation of the atmosphere; weather and weather forecasting. Emphasis on aspects of interest to the prospective or in-service teacher. Not for Geology Major credit. Prerequisites: High School physics and chemistry or equivalents. (Y)

3050 Volcanoes and Plate Tectonics (4)

Relationship of volcanism to plate tectonics. Catastrophes and volcanic hazards. Processes and products at historically active volcanoes worldwide: lava flows and domes, avalanches and mudflows, air-fall tephra, and pyroclastic flows and surges. Not for Geology Major credit. Concurrent enrollment in GEOL 3051 recommended. (Tent. F)

3051 Volcanoes Laboratory (2)

Crystals and igneous minerals, textures and structures of volcanic rocks, volcanic rock identification. Reading topographic and geologic maps. Geology and volcanic hazards at Cascade and other volcanoes. Not for Geology Major credit. Prerequisite: prior or concurrent enrollment in GEOL 3050. One hr. lect., 2 hrs. lab activity; field trips to active and ancient volcanoes. (Tent. F)

3100 Geology of the Western National Parks (4)

The geologic history of western North America (from the Pacific Coast through the Great Plains) as interpreted from

the outstanding features preserved in the national parks and selected other park service areas. Not for Geology major credit. (Alt. Sp)

3110 Principles of Geomorphology (4)

Landforms as products of diastrophism, volcanism, and surficial processes; morphogenetic regions of the earth and the effect of climate on the processes that shape them; rates and stages of landscape evolution and their dependence on time, process and structure. Cross-listed with [GEOG 3110](#). Prerequisite: GEOL 2101 or equivalent. Three hrs. lect., 3 hrs. lab.; field trip(s). (Alt. W)

3200 Regional Field Geology (1-2)

Reconnaissance field study of geology of selected areas in California and adjoining regions. May be repeated, but no more than 4 units may be applied to Geology major. Prerequisites: one introductory geology course and permission of instructor. CR/NC grading only. Thirty hrs. field/lab. per unit. (Y)

3300 Principles of Geology (4)

The earth as studied by geologists: rocks, fossils and the stories they tell. Processes that shape the earth's surface and affect its deep structures. Changes in appearance and life forms through time. Not for Geology Major credit. One all day field trip. (Alt. Y)

3400 General Oceanography (4)

Biological, chemical, geological, and physical characteristics of the sea, including geology of the ocean basins, marine ecosystems, and waves and currents. Three hrs. lect., 3 hrs. lab.; field trip(s).

3610 Mineralogy (4)

Principles of mineralogy, including symmetry groups and lattice structure; chemistry, growth and habit, and measurement and orientation of crystals. Laboratory emphasizes physical and optical properties of rock-forming minerals. Prerequisites: courses in general chemistry and physical or general geology are highly recommended. Two hrs. lect., 6 hrs. lab. (Sp)

3611 Optical Mineralogy (4)

Elements of optical crystallography utilizing indicatrix theory. Use of the light-polarizing microscope to describe and identify rock-forming minerals in thin sections. Introduction to oil-immersion methods. Prerequisite: GEOL 3610 or equivalent. Two hrs. lect., 6 hrs. lab. (F)

3700 Rocks (5)

Characteristics, occurrence, and origin of igneous, sedimentary and metamorphic rocks. Petrogenesis under various pressure/temperature conditions. Geometry and architecture of sedimentary deposits. Classification and identification of rocks in laboratory and field. Not for geology major credit. Prerequisite: GEOL 3610. Recommended: some college chemistry. Three hrs. lect., 6 hrs. lab/field.

3701 Igneous and Metamorphic Petrology (5)

Characteristics, phase relations, and origin of igneous and metamorphic rocks. Plate-tectonic setting of magmatism and metamorphism. Laboratory emphasizes rock classification based upon hand-lens and microscopic examination of mineralogy and texture. Prerequisites: GEOL 3610 (or equivalent) and GEOL 3611 (concurrent enrollment satisfactory). Three hrs. lect., 6 hrs. lab.; field trip(s). (W)

3702 Sedimentary Petrology (4)

Texture, composition, and classification of sedimentary rocks. Sedimentary processes including weathering, transportation, deposition and lithification. Laboratory analysis and identification of sediments and sedimentary rocks. Prerequisites: GEOL 3610 (or equivalent) and GEOL 3611 (concurrent enrollment satisfactory). Two hrs. lect., 6 hrs. lab.; field trips. (Sp)

3730 Principles of Stratigraphy (3)

Development of geologic time scale. Depositional systems, facies, succession and age relations of strata, methods of correlation. Application of paleontologic and biostratigraphic principles. Field project required. Prerequisite: GEOL

3030. Two hrs. lect., 3 hrs. lab.; field trip(s). (W)

3800 Achievements of Women in Science (4)

(See [BIOL 3800](#) for course description.)

3810 Structural Geology (5)

Geometric, kinematic and dynamic analysis of structures of igneous, sedimentary and metamorphic rocks. Laboratory emphasis on descriptive geometry and stereographic solutions to structural problems; geologic maps and structure sections. Prerequisite: GEOL 2101 or equivalent. Three hrs. lect., 6 hrs. lab.; field trip. (Sp)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. CR/NC grading only. May not be applied to Geology degree programs. Prerequisites: at least 2.0 GPA and departmental approval of activity. (A)

3910 Geologic Field Methods (3)

Introduction to geologic field methods and instruments, use of aerial photographs and topographic maps in geologic mapping, preparation of geologic maps of local areas. Prerequisites: GEOL 3701, 3702; 3730; and 3810 (any of these courses may be taken concurrently). One hr. lect., 6 hrs. field. (Sp)

4010 Introduction to Geophysics (5)

Principles of geochronology; seismology, gravity and isostasy; terrestrial heat flow, magnetism and electricity. Collection and analysis of geophysical data. Prerequisites: GEOL 2101 and PHYS 2703 or equivalent. Three hrs. lect., 6 hrs. lab.; field trip required. (Alt. Sp)

4110 Introduction to Geochemistry (5)

Thermodynamics of geologic systems; weathering, sedimentation, crystallization of silicate melts, hot solutions and gases, metamorphism, behavior of elements in the earth. Cross-listed with [CHEM 4110](#). Prerequisites: GEOL 3610 (may be taken concurrently), and CHEM 1103, or equivalents. Three hrs. lect., 6 hrs. lab. (Alt. F)

4120 Geology of Ore Deposits (5)

Characteristics, occurrence, and origin of ore deposits with emphasis on their relationships with local geology; physical and chemical determination of ore minerals. Prerequisite: GEOL 3701 recommended. Three hrs. lect., 6 hrs. lab; two Saturday field trips. (Alt. F)

4141 Geological Oceanography (M SC 4141) (6)

(See [Marine Sciences section](#) for course description.)

4142 Physical Oceanography (M SC 4142) (6)

(See [Marine Sciences section](#) for course description.)

4143 Chemical Oceanography (M SC 4143) (6)

(See [Marine Sciences section](#) for course description.)

4174 Topics in Oceanography (1.5-6)

(See [Marine Sciences section](#) for course description.)

4175 Topics in Marine Science (M SC 4175) (4.5-6)

(See [Marine Sciences section](#) for course description.)

4310 Clays and Soils (4)

Principles of clay mineralogy including chemistry, structure and identification. Surficial earth processes that lead to soil formation, emphasizing mechanical and chemical breakdown of primary rocks and minerals. Soil composition and classification as a function of climatic and geologic variability. Laboratory analysis of soils utilizing x-ray diffraction and SEM-EDX. Prerequisites: GEOL 3610, CHEM 1103. A miscellaneous course fee will be charged for materials;

consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 3 hrs. lab.

4320 Hydrogeology (4)

The hydrologic cycle, from precipitation, evapotranspiration, infiltration and runoff, to surface and groundwater. Hydrograph analysis, stream gaging and discharge determination. Groundwater occurrence, movement and evaluation. Hydrologic regions of U.S., emphasizing the western states. Prerequisite: GEOL 2101 or equivalent, and senior standing; or permission of instructor. Field trip(s). Three hrs. lect., 3 hrs. lab. (W)

4400 Writing for Geoscientists (3)

Writing for professional geoscientists, including prose style, organization, appropriate use of technical terms, and editing and rewriting techniques. Stresses effective communication: what works and why. Prerequisites: geology upper division/graduate standing. CR/NC grading only. (Alt. W.)

4630 X-Ray Crystallography (4)

Introduction to the study of crystalline solids by X-ray diffraction; generation of X-rays and diffraction theory; compound identification and determination of precise lattice parameters. Prerequisites: CHEM 1103, MATH 1304, PHYS 2703 or equivalents, or permission of instructor. Two hrs. lect., 6 hrs. lab. (Y)

4800 Seminar (1-2)

Critical, in-depth study of selected topics of current and classical research in geology; topics not repeated in two-year interval. May be repeated, but no more than 6 units may be applied to Geology major. Prerequisite: senior standing or permission of instructor. (Y)

4820 Field Geology (8)

Field laboratory application of techniques of geological mapping; compilation of detailed geological maps and reports. Recommended to be taken at end of junior year. Forty-eight hours a week for 5 weeks. Prerequisites: GEOL 3701, 3702; 3730; 3810; and 3910 or equivalents and permission of instructor. (Su)

4830 Geological Field Studies in Western United States (4)

Field laboratory application of techniques of geological mapping, compilation of geological maps and reports of classical areas of the western United States. May be repeated once for credit. Prerequisites: GEOL 3701, 3702; 3730; 3810; 3910; and 4820 or equivalents and permission of instructor. Forty hrs. field/lab. per week for 3 weeks. (Su)

4900 Independent Study (1-4)

Must be taken CR/NC. (A)

4910 Senior Thesis (2)

Independent research project with a written thesis, digital map, or similar final product to be completed by students desiring to graduate with a B.S. in geology with research experience (see department for guidelines). CR/NC grading only. Prerequisites: senior level in Geology and thesis advisor's approval.

4932 Geological Field Studies in Baja California (1-2)

Field laboratory study of Cenozoic volcanic rocks and landforms adjoining the actively spreading Gulf of California. Granitic basement rocks and related unique vegetation. May be repeated once for credit. Prerequisites: one introductory geology course and permission of instructor. CR/NC grading only. Thirty hrs. field/lab per unit.

* Completion of the next calculus course, MATH 1305, is highly recommended. In particular, students planning coursework in hydrogeology (GEOL 4320) and groundwater (GEOL 6320) should develop a strong background in calculus. Additional units in calculus may be applied to elective requirement III.

** Students needing a relatively rigorous preparation in mathematics and physics (e.g., for graduate study) are strongly urged to complete the calculus-based physics sequence (PHYS 1001, 1002, 1003); this requires completion of the additional calculus courses MATH 1305 and 2304. The additional 8 units earned in calculus may be applied to elective requirement III.

Health Sciences [HSC]

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- [COURSES](#)

HEALTH SCIENCES

Department of Nursing and Health Sciences
School of Science
Office: North Science 143
Phone: (510) 885-3223

Professor:

John C. Wong

Associate Professor:

Pauline J. Kelzer

Assistant Professor:

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Lecturer:

Mala Seshagiri

PROGRAM DESCRIPTION

Health, the second largest industry in our country, employs over 8.0 million workers. Physicians represent only 7% of this work force. There are over 200 other professions in the health field. Job opportunities and degree of competition for admission to clinical training vary considerably among geographic areas, states, and the individual professions. Careful planning for a primary profession and one or more alternate careers is a must.

The B.S. degree with a major in Health Sciences offers a program with large blocks of elective courses tailored to meet career needs. Students should contact the department for a personal planning appointment.

CAREER OPPORTUNITIES

By selecting the appropriate courses, students in the Health Sciences program can prepare for continued study in the independent practice professions, for graduate study in community health education, health administration, planning and other public health careers, for entry into the job market in federal, state and county health agencies, community clinics, voluntary health agencies and hospitals, insurance and pharmaceutical companies, or for internships required for licensure in nursing home administration, environmental health, and other health careers. Possible job titles include:

Biomedical Engineer ■ Community Health Planner ■ Dietitian/Nutritionist ■ Environmental Analyst ■ Food and Drug Inspector/Technologist ■ Health Administrator ■ Health Information Specialist ■ Hospital Administrator ■ Hospital Planner ■ Independent Practice Health Professional ■ Industrial Hygienist ■ Medical Records Administrator ■ Medical Technologist ■ Pharmacist ■ Public Health Educator ■ Researcher

MAJOR REQUIREMENTS ■ B.S.

The major in Health Sciences consists of 127-135 units; the B.S. degree requires a total of 192 units.

I. Lower Division Core (36 units)

ANTH 1000 Introduction to Anthropology (4) or SOC 1000 Introduction to Sociology (4)
BIOL 1001 Introduction to Biology (4) and
BIOL 1002 Introduction to Biology Lab (1) or BIOL 1301 Foundations of Biological Science (5)
BIOL 2010, 2020 Human Physiology & Anatomy I, II (5,4)
HSC 1000 Introduction to Health Professions Practice (4)
HSC 1100 Health: Maintenance of Wellness (4) or PE 1110 Concepts of Health (4)
PSYC 1000 General Psychology (5)
STAT 1000 Elements of Probability and Statistics (5)

II. Upper Division Core (55-57)

ANTH 3720 Medical Anthropology (4) or SOC 4720 Medical Sociology (4)
BIOL 3005 Introduction to Microbiology (5) or BIOL 3405 Microbiology (6) or BIOL 4010 Microbes and Humanity (4)
HSC 3000 Research and Program Evaluation in Health Science (4)
HSC 3200 Environmental Health (4)
HSC 3300 Medical Care in the US (4)
HSC 3400 Individual & Community Mental Health (4) or PSYC 4410 Abnormal Psychology (4)
HSC 3350 Health Legislation & Government Programs(4)
HSC 3500 The Principles of Nutrition and Diet Therapy (4) or BIOL 3070 Optimal Nutrition (4)
HSC 4500 Supervised Field Training & Writing (3)
HSC 3650 Consumer Health (4)
HSC 3800 Multicultural Issues in Health Care (4)
HSC 4601 Health Care Administration I (4)
HSC 4602 Health Care Administration II (4)
HSC 4700 Senior Seminar (4)

III. Electives (36-42 units)

The electives that students choose in consultation with the department chair should reflect their career goals. Often a minor in another area can be used to meet this requirement. Select Group 1, Group 2, Group 3, or Group 4 and complete all courses listed under that group.

Group 1: Health Marketing and Management Electives (36 units)

Complete the following courses (20 units):

ACCT 2210 Accounting for Non-Business Majors (4) or ACCT 2251 Principles of Accounting I (4)
ECON 2301 Principles of Microeconomics (4)
MKTG 2485 Establishing and Managing a Small Business (4)
MKTG 3600 Theories of Management (4)
MKTG 3401 Introduction to Marketing Management (4)

Another 16 units in Marketing. The following courses are recommended:

MKTG 3414 Marketing in Non-Profit Organizations (4)
MKTG 3420 Sales Analysis and Sales Management (4)

MKTG 4414 Promotion Management (4)
MKTG 4415 Corporate Communications (4)
MKTG 4417 Consumer Behavior (4)
MKTG 4495 Administrative Communication (4)

Group 2: Pre-Health Professions Electives (medicine, dentistry, etc.) (42 units)

CHEM 1101, -2, -3 General Chemistry I, II, III (5 each)
CHEM 3301, -2, -3 Organic Chemistry I, II, III (5 each)
PHYS 2701, -2, -3 Introductory Physics I, II, III (4 each)

Group 3: Pre-Health Professions Electives (allied health fields) (36 units)

CHEM 1601, -2, -3 Basic Chemistry for the Health Sciences (4 each)
PHYS 1700 Elementary Physics (4) and
PHYS 1780 Elementary Physics Lab (1) or PHYS 2701 Introductory Physics (4) Pre-Physical Therapy only)
Other Electives: 19-20 units

Group 4: Community Health Electives (36 units approved by the department chair)

Recommended electives:

BIOL 3030 Genetics, Evolution, and Humanity (4) or BIOL 3120 Principles of Genetics (4)
BIOL 3060 Human Sexuality (4)
BIOL 3410 Epidemiology (3)
BIOL 4120 Radiation Biology (4)
BIOL 4430 Immunology (3)
Other Electives: 18 units

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

Certificate in Pre-Physical Therapy

A certificate in Pre-Physical Therapy can be earned in conjunction with the major in Health Sciences. For additional information and a referral to a pre-professional adviser in physical therapy, contact the Department of Kinesiology and Physical Education at 885-3061.

COURSES

1000 Introduction to Health Professions Practice (4)

Professional practice in preventive, curative and rehabilitative health care services. Accreditation, certification and licensing standards. State and Federal regulations on quality assurance and reimbursement policies.

1100 Health: Maintenance of Wellness (4)

Analysis and application of the Wellness concept for healthful living. Instruction in techniques and procedure for self-care, self-examination, emergency care and efficient utilization of the medical care system.

3000 Research and Program Evaluation in Health Science (4)

Use of epidemiological and biostatistical theory in the design, investigation, analysis and interpretation of health problems. Prerequisites: MATH 1130, STAT 1000. Three hrs. lect., 2 hrs. activity. (Y)

3200 Environmental Health (4)

The relationship of the environment to people's health. Prerequisites: BIOL 3405 or 4010. (Y)

3300 Medical Care in the U.S. (4)

Introduction to the organization and function of medical care in the U.S. (Y)

3350 Health Legislation and Government Programs (4)

Current Federal and State health legislation, regulations, and standards, and their effect on professional practice. Historical development of various health programs and their current status. Prerequisite: HSC 3300. (Y)

3400 Individual and Community Mental Health (4)

An analysis of various concepts of mental health. The application of intervention techniques. Prerequisite: PSYC. 1000. (Y)

3500 The Principles of Nutrition and Diet Therapy (4)

Functions and sources of nutrients. Health problems caused by lack or excess of nutrients. Nutritionists and dieticians in the health care system. Normal and therapeutic nutrition with emphasis on diet-related problems such as cardiovascular disorders, weight control and hypertension. Prerequisites: BIOL 1001, BIOL 1002, BIOL 2061, BIOL 2062.

3600 Ambulatory Health Care Administration (4)

Planning and structuring processes for ambulatory care services. Implementation problems and strategies. Overall control, cost containment, leadership effectiveness and evaluation. Prerequisite: HSC 3300.

3650 Consumer Health (4)

Major health care consumer issues in an epidemiological context: health status, drug usage, health products across the life cycle, exercise and nutrition, diseases, complimentary healing systems. Interdependence of these issues with behavioral, political, economic, ecologic, and cultural factors. Prerequisite: BIOL 1000 or permission of instructor.

3800 Multicultural Issues in Health Care (4)

The complex transcultural issues surrounding delivery and acceptance of health care. Impact of cultural values and ethnicity on understanding health and illness, and the utilization of health care services. Concepts and definitions of culture, ethnicity, traditional health beliefs, health and illness. Prerequisite: SOC 1000 or ANTH 1000 or permission of instructor.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 8 units will be accepted toward the Health Sciences major. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

4500 Supervised Field Training and Report Writing (3)

A supervised field experience in health related programs. Prerequisite: Senior standing. Nine hrs. fieldwork. (Y)

4601 Health Care Administration I (4)

Principles of medical and social care organization. Management of services in long-term care. Prerequisites: HSC 3350, HSC 3300.

4602 Health Care Administration II (4)

Principles and methods of financial management of long-term care facilities. Processing of financial records and patient statistics. Preparation of planning and control reports. Prerequisites: ACCT 2701, HSC 4601.

4700 Senior Seminar (4)

Capstone course for graduating seniors in Health Sciences. Emphasis on the integration of theory, skills, and field work. Prerequisite: Senior standing in Health Sciences within two quarters of graduation.

4900 Independent Study (1-4)

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History [HIST]

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HISTORY

Department of History
School of Arts, Letters, and Social Sciences
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Phone: (510) 885-3207, FAX: (510) 885-4791

Professors:

Jose A. Fernandez, Frank D. Gilliard, Bruce A. Glasrud, Tom G. Hall, Gerald S. Henig, John E. Morby, Richard J. Orsi, Theodore Roszak, Judith M. Stanley

Associate Professors:

Dee E. Andrews, Henry F. Reichman (Chair)

Assistant Professors:

Lois Huneycutt, Sophia Lee

PROGRAM DESCRIPTION

Students who pursue work in History benefit in a variety of ways. Their studies afford them entree to the riches of the recorded past and understanding of the process of historical change. At the same time, a History major enables them to develop critical reading and writing skills which are valuable in life and in any employment field they choose to enter.

CAREER POSSIBILITIES

Many History majors plan to enter teaching at the secondary, community college, or college and university level. The major, however, can also provide excellent preparation for a career in law, government, public administration, diplomacy, librarianship, or museum and archival work.

FEATURES

The B.A. degree in History requires 60 units in History, 16 at the lower division and 44 at the upper division level. Area requirements in U.S., European, and Latin American and Asian History (24 units) provide breadth; seminar and elective requirements (8 units) allow for specialization in a particular area or subject, and courses in historiography and historical method (12 units) acquaint students with the theory and practice of History. Students who plan to do graduate work in History are encouraged to elect as many seminar courses as possible. Students must also demonstrate proficiency in a foreign language or in writing, mathematics, computer science or statistics.

PREPARATION

Students planning to major in History should pay particular attention to the lower division and proficiency requirements in the major: portions of these may be satisfied before coming to Hayward. Work in satisfaction of departmental proficiency requirements may be commenced at the high school or community college level, viz.:

1. High school or community college study of a foreign language may enable a student to fulfill the proficiency requirement in foreign language by passing a departmental reading examination. Or a year of such study elsewhere may be a prelude to intermediate level coursework, another means of satisfying the proficiency requirement in a foreign language.
2. Portions of alternative proficiency requirements in English, or Mathematics/Computer Science, or Statistics may also be completed before transfer to Hayward: a student may elect an advanced (second year level) expository writing course at a community college, and, depending on the option chosen, an introductory course equivalent to MATH 1810, CS 1160, or STAT 1000. (See Cal State Hayward articulation agreement with your community college for course equivalencies.)

See also, Advanced Placement section listed in this chapter.

MAJOR REQUIREMENTS - B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 60-84 units; the B.A. degree requires a total of 186 units.

I. Lower Division (16 units)

HIST 1000 The Nature of the Study of History (4)

(Students who have completed four upper division History courses or courses equivalent to HIST 4030 and 4031 at other institutions may substitute an upper division History course for HIST 1000.)

HIST 1014 World Civilizations I (4)

HIST 1015 World Civilizations II (4)

HIST 1016 World Civilizations III (4)

II. Upper Division (44 units)

A. Area Requirements (24 units)

1. A minimum of 8 units in each of the following areas (16 units total):

United States

Select from HIST 3411, 3412, 3413, 3414, 3415, 3416, 3417, 3500, 3503, 3505, 3511, 3515, 3520, 3540, 3547, 3550, 3555, 3567, 3568, 3571, 3580.

Europe

Select from HIST 3002, 3107, 3109, 3110, 3114, 3123, 3124, 3127, 3128, 3131, 3132, 3133, 3134,

3136, 3138, 3139, 3140, 3150, 3160, 3170, 3201, 3202, 3203, 3204, 3221, 3222, 3223, 3224.

2. Third Field: A minimum of 8 units from the following:

Latin America

Select from HIST 3555, 3600, 3601, 3602, 3615, 3622, 3631, 3632

and

Asia

Select from HIST 3301, 3311, 3312, 3313, 3322, 3323, 3325

B. Core Requirements (12 units)

HIST 4801-4899 Special Problems in History (4)

HIST 4030 Historiography (4)

HIST 4031 Proseminar in Historical Method (4)

- C. **Electives:** Select 8 units from upper division courses in History. No more than 8 units of HIST 4900 and HIST 4800 series (beyond the required 4 units in HIST 4800 series), may be counted toward the major.

III. Courses in Supporting Fields (0-24 units)

Proficiency Requirement in Foreign Language, English, Mathematics/Computer Science, or Statistics.

Select Option A or B:

(*Note:* course prerequisites may need to be completed at Cal State Hayward by students who did not take sufficient foreign language instruction in high school.)

A. Demonstrate a reading knowledge of a foreign language by either:

1. completing MLL 2103, 2203, 2303, 2403, 2503, or 2853 with a passing grade (4-24 units)
2. or passing a foreign language examination administered by the History department (0 units). The examination is offered as required; please see the Department Secretary to make arrangements for taking the examination.

B. Complete both (1) and (2) (8-17 units)

1. Complete ENGL 2030, 2040, 2050 or 3010 with a passing grade. (4 units)
2. Select one of the following options (4-13 units):
 - a. English: Complete three of the following with a passing grade: ENGL 3005, 3010, 3020, 3040 (12 units)
 - b. Mathematics/Computer Science: Complete MATH 1810 or CS 1160 with a passing grade (4-12 units). Note: course prerequisites may need to be completed at Cal State Hayward by students who did not take sufficient Math instruction in high school.
 - c. Statistics: Complete three of the following with a passing grade: STAT 1000, 3010, 4000, or 4610 (13 units)

Advanced Placement

Students who score a "3," "4," or "5" on the College Entrance Examination Board's Advanced Placement Test in European History will be granted 8 units of credit for two of HIST 1014, HIST 1015, and HIST 1016, lower division requirements in the History major. (Specific equivalencies will be determined upon enrollment in the university.) Students who earn a "3," "4," or "5" on the College Entrance Examination Board's Advanced Placement Test in U.S. History will earn unit credit for HIST 1101 and HIST 1102 and satisfy the U.S. History and U.S. Constitution portion of the Code requirement. An additional course is required to complete the California State and Local Government portion of the Code requirement.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 36 units. No more than 8 units of HIST 4800 series and 4900 may be counted as part of the minor. HIST 3400 may not be counted towards the minor.

I. Lower Division (16 units)

- HIST 1000 The Nature of the Study of History (4)
- HIST 1014 World Civilizations I (4)
- HIST 1015 World Civilizations II (4)
- HIST 1016 World Civilizations III (4)

II. Upper Division (20 units)

A. Area Requirements

A minimum of 4 units in each of the following: Europe, United States, and Latin America or Asia (12 units)

B. Electives (4 units)

Four units from upper division courses in History

C. Four units from the following:

- HIST 4030 Historiography (4) or
- HIST 4031 Proseminar in Historical Method (4)

HISTORY OPTION: LIBERAL STUDIES

Area VII, Credential Track or Area VI, Liberal Arts Track (24 units)

- HIST 3500 History of California (4)
- HIST 4031 Proseminar in Historical Method (4)
- Four additional courses in History, at least three of which must be upper division, and which represent at least two of the following fields: Europe, the United States, Latin America, and Asia (16)

UNDERGRADUATE COURSES

Lower Division Courses

1000 The Nature of the Study of History (4)

A seminar dealing with the nature of historical interpretation and criticism, theories of history, bibliographical techniques, methods of research, and training in recognition of fallacies of language and thought. (A)

1014 World Civilizations I (4)

To ca. 800. Neolithic revolution. River Valley civilizations: Egypt, Mesopotamia, India, China. Ancient Hebrews. The Mediterranean: Hellenic, Hellenistic, and Roman civilizations. Emergence and spread of Christianity and Islam. Gupta India. (Y)

1015 World Civilizations II (4)

Ca. 800 to ca. 1700. Empires and civilizations: Sung China, Japan, West Africa, Byzantium, Abbasid Iraq and Islamic Spain, Aztecs and Incas, Christian Europe and feudalism. Eurasian migrations. European self-transformation and expansion. Monarchic states and market economies. Scientific revolution. (Y)

1016 World Civilizations III (4)

Ca. 1700 to present. European absolutism. Enlightenment and democratic revolutions. Industrial capitalism and social transformation. Liberalism, conservatism, nationalism, socialism. Imperialism in East Asia, India, Middle East, Africa. Second scientific revolution. World Wars, Communism, Fascism. Cold War and end of colonialism. (Y)

1101 History of the United States to 1877 (4)

[CAN HIST 8]

A survey of the development of the American nation from colonial times to the close of Reconstruction. This course, when combined with credit for History 1102, meets statutory requirements in U.S. History, U.S. Constitution, and California State and Local Government. (A)

1102 History of the United States since 1877 (4)

[CAN HIST 10]

A survey of American history from Reconstruction to the present. This course, when combined with credit for History 1101, meets statutory requirements in U.S. History, U.S. Constitution, and California State and Local Government. (A)

Upper Division Courses

Europe

3002 Dynastic History of Europe (4)

Survey of Europe's major ruling families from ca. 500 to modern times. Barbarian kingship; feudal monarchies; age of absolutism; challenge of the French Revolution; kingship in modern times. (Not open to students with credit for G S 4347 or HIST 3941.)

3107 History of Ancient Greece (4)

From the Bronze Age to the death of Socrates.

3109 History of the Roman Republic (4)

From the legendary foundation of Rome (753 B.C.) to the civil wars of Julius Caesar and the fall of the Republic (c. 31 B.C.) Not open to students with credit for HIST 3108.

3110 History of the Roman Empire (4)

From the reforms of Octavian Augustus (31 B.C. - A.D. 14) to the era of Justinian the Great (A.D. 527-565) and the end of the Empire in the West. Not open to students with credit for HIST 3108.

3114 History of Early Christianity (4)

Topics of study include the Jewish and Roman backgrounds, the historical Jesus, the influence of Paul, and the development of Christian institutions in the first four centuries.

3123 History of Medieval Christianity (4)

The Christian faith and its institutions from ca. 500 to ca. 1500: development of church hierarchy, monasticism,

conflicts between secular and ecclesiastical authority, the medieval university, theology, maintaining an orthodox faith, and Christianity as perceived and practiced by ordinary Christians.

3124 Women in Ancient and Medieval Europe (4)

Women in western culture from its near-eastern origins until ca. 1500. Women within the family and their political, religious, and economic activities. Impact of cultural definitions of the feminine on the lives of men and women.

3127 Europe in the Early Middle Ages (4)

Political, social, intellectual, and economic evolution of Europe from the decline of the Roman Empire to about 1050.

3128 Europe in the Later Middle Ages (4)

Europe from the 11th century to the 15th century.

3131 The Renaissance (4)

The medieval background; the nature of the Renaissance; towns, capitalism, society; the Roman Church; the Renaissance state; Italian Humanism; Humanism in the north; the expansion of Europe; Renaissance political theory; the exploration and mastery of nature; Renaissance art.

3132 Renaissance Magic (4)

The occult tradition in the Renaissance and its Hermetic, Pythagorean, Orphic, and Neoplatonic sources. Kaballah and Jewish Kabbalism. The Renaissance Magus. Natural magic; controversy over astrology; alchemy; the work of Ptolemy, Ficino, Pico, Pontano, Agrippa, Paracelsus; Black magic; demonology; witchcraft.

3133 European Witchcraft (4)

Medieval, 16th and 17th century European witchcraft in its social, political, religious, and legal context. The myth of the witch: medieval and modern significance. Rituals of witchcraft. Renaissance-Reformation demonology and trials.

3134 The Reformation (4)

The eve of the Reformation; the Roman Church; church and religion in Germany; the Reformation in Germany; Martin Luther; the Reformation in France, Switzerland, and England; the Radical Reformation; the Catholic Reformation; the Council of Trent; the Jesuits.

3136 Woman in the Renaissance (4)

The role and status of women in Renaissance society, as discussed in the works of Castiglione, Erasmus, Marguerite of Angouleme, Vives, Montaigne. The Medieval background, education, domestic life, women in politics, marriage, religion.

3138 Imperial Spain (4)

Spain in the Golden Century. Social, political, economic, religious, and cultural developments in Spain from 1469 to 1660. Emphasis on artistic, intellectual, and literary trends.

3139 The Age of Discovery (4)

European exploration and discovery in the 15th and 16th centuries. Ancient science and medieval travel. Route of spices. Art of navigation and cartography. Ships and ship-building; firearms and naval gunnery. Africa, route to India, Portuguese empire. America. Conquest and colonization. Pacific exploration. Consequences.

3140 Europe, 1555-1689: Age of the Baroque (4)

The Peace of Augsburg; a century of religious wars, the struggle for supremacy in Europe; constitutional crises and resolutions; exploration and discovery; the scientific revolution; the art of the Baroque; the golden age of drama. (Y)

3150 Europe, 1689-1815: Absolutism, Enlightenment and Revolution (4)

The sunset years of Louis XIV of France; the impact of scientific ideas and the culture of the Enlightenment; mid-century diplomacy and power politics; monarchy in decline; the French Revolution and Napoleon. (Y)

3160 Europe, 1789-1919: Class, Nation and Empire (4)

The Revolutionary and Napoleonic legacy; Romanticism, Liberalism, and Socialism; the Revolutions of 1830 and 1848; Nationalism and the consolidation of states; Darwinism and its social ramifications; European imperialism and the First World War. (Y)

3170 Europe in the 20th Century (4)

The transformation of traditional European institutions and values in the century of total war. (Y)

3201 British History: 1485-1815 (4)

The Tudor and Stuart period with special emphasis on the English Reformation and the Puritan Rebellion. The culture and politics of the "Augustan Age." The beginnings of British imperialism and the industrial revolution.

3202 British History: 1815 to the Present (4)

Great Britain in the age of industry and empire, Victorian manners and morals, the rise of labor and socialist movements, contemporary problems and issues in British society.

3203 Henry VIII, The Man and The Myth (4)

Life and times of Henry VIII as reflected in historical writing, drama, and film.

3204 The Virgin Queen (4)

The life and times of Queen Elizabeth I, including studies in Elizabethan culture. General coverage of Tudor period: 15th and 16th centuries.

3221 History of Russia to 1801 (4)

Kievan Rus, the Mongols, the rise of Muscovy, and the reigns of Peter the Great and Catherine the Great. Emphasis on the institutions of serfdom and autocracy and on the development of the Russian Empire.

3222 History of Russia, 1801-1917 (4)

Political, economic, social, and diplomatic developments from Alexander I to the Bolshevik Revolution. Absolutism, the "Great Reforms," reaction, the growth and diversification of the opposition movements--liberalism, socialism, Russian and non-Russian nationalism; the decay and collapse of the Monarchy.

3223 History of the Soviet Union (4)

The revolutionary movement in Russia, Marxism-Leninism, the Provisional Government and the Bolshevik coup, domestic and foreign affairs under Lenin and his successors.

3224 The Cold War (4)

History of the Cold War from 1939 to the fall of the Berlin Wall in 1989.

Asia

3301 Modern Asia (4)

Oriental civilizations under the impact of the West, with emphasis on the development of China and Japan since the 19th century.

3311 Traditional China (4)

China from classical antiquity to the 19th century; intellectual trends, political developments, and social changes.

3312 Modern China (4)

China from the Opium War to 1949. The collapse of imperial china, Western incursions, the emergence of modern culture, and the roots of the communist revolution.

3313 People's Republic of China (4)

The socialist experience in China from 1949 to the present: the leadership of Mao Zedong, the Cultural Revolution, and changes in urban and rural areas in the post-Mao era.

3322 Early Japan (4)

Cultural, social, and political history of Japan to 1800. The aristocracy, the samurai, and the impact of Asian continental culture.

3323 Modern Japan (4)

Japan as an industrial and imperialist power from traditional foundations to defeat in World War II. Modern culture, party politics, and social problems.

3325 Postwar Japan (4)

The political, social, and cultural dimensions of Japan's transformation from defeated nation in 1945 to world economic power today.

*United States***3400 American History (4)**

Political and social history of the United States from colonial times to the present. A survey of the transformation of an agrarian society into a complex industrial urban order. Satisfies statutory requirement in U.S. history. Not open to History majors. (Y)

3411 The United States: Colonial Period (4)

The 13 Colonies: European background, settlement and expansion, and development to the Age of the American Revolution. (Y)

3412 The United States: The Age of the American Revolution (4)

The development of an American identity and the struggle for independence, 1688-1789. Intensive study of the causes of the American Revolution, Confederation Period, and the Constitution. (Y)

3413 The United States: The New Republic (4)

The transformation of American Society, 1800 to 1845. The emergence of democratic politics, industrialization, the rise of the "Cotton South," and western expansion. (Y)

3414 The United States: Civil War and Reconstruction (4)

Study of the Civil War, its causes, and the reconstruction period. (Y)

3415 The United States: Emergence of the Modern Nation (4)

The U.S. from 1877 to 1920. The rise of American industrialism, populism, imperialism, progressivism and World War I. (Y)

3416 The United States: The New Deal Era (4)

Republican ascendancy through World War II. Origins of the Depression, Franklin Delano Roosevelt and the New Deal. (Y)

3417 The United States: Recent American History (4)

The U.S. from 1945 to the present. Domestic problems and world leadership during the postwar era. (Y)

3500 History of California (4)

California history from early days to the present, emphasizing the influence of geography, natural resources, and a growing population. Satisfies requirement in California state and local government. (A)

3503 History of the San Francisco Bay Area (4)

The settlement of the Bay Area from the Indian period through the twentieth century, stressing the influence of

natural environment, population growth, ethnic assimilation, transportation, urbanization, and economic development on the evolution of a regional culture.

3505 California Environmental History (4)

California environmental history from the Indian period to the present. Varying interactions between human societies and the natural environment, the deterioration and exhaustion of natural resources, and recent efforts to promote greater environmental balance.

3511 The Westward Movement (4)

Westward expansion of the United States from 1763 to 1900; development of western states and effect on the history of the nation. (Y)

3515 The Mexican-American and the American Southwest (4)

The historical evolution of northern Mexico. Acquisition of the Southwest by the United States. Social, economic, and political development of region, with emphasis on the role and social condition of the Mexican-American people.

3520 A History of the Southern United States (4)

Social, economic, political, and cultural developments in the southern United States from colonial beginnings to the present. Topics include emergence of a distinctive South, slavery and race relations, Confederacy, Reconstruction, the "New South," and changes in the mid-twentieth century South.

3540 The Making of the U.S. Constitution (4)

Seminar in the political and social significance of the Constitution. Ideas and personalities behind the formation of the Constitution, the ratification debates, and the adoption of the first 10 amendments.

3547 Modern War (4)

The experience of United States men and women in modern war from 1861 to the present. Why people go to war, soldiers' daily life, combat experiences, technology of warfare, life on the homefront, and war in literature and film.

3550 The History of U.S. Foreign Relations (4)

Selected problems of American foreign relations, including the American Revolution, expansion and conflict, isolationism and internationalism, the Cold War and terrorism. Consideration of the State Department and of diplomatic practice in their historical context.

3555 Inter-American Relations (4)

United States-Latin American relations, emphasizing the Western Hemisphere idea. Sources of conflict, including nationalism, socialism, economic factors, and security considerations; Castro and Allende.

3567 Blacks in the United States (4)

Political, economic, social, and cultural history of African-Americans in the United States since 1619. A comparison of the African-American experience with the experiences of other Americans. Cross-listed with [E S 3567](#). (Y)

3568 Blacks in the West (4)

A social, political, economic, and cultural history of blacks in the Western United States from Estevanico to the present. Topics include black settlement patterns, black occupational status, blacks in myth and reality, twentieth century migration, and protest and reform.

3571 Women in American History (4)

Survey of women's place in the social, economic, and political life of the nation from colonial times to the present. (Y)

3580 Lincoln and His Times (4)

Lincoln and his personality in the context of antebellum and Civil War America.

Latin America

3555 Inter-American Relations (4)

(See course description under History -- United States.)

3600 Colonial Latin America to 1700 (4)

Relations among the colonists, Crown, Church, and Indians during and after the Spanish conquest: the catastrophic fall in the Indian population, the rise of the great estate, and the decline of Iberian power in the New World.

3601 Latin America: 1700-1900 (4)

Pressure for independence across Mexico and South America in the 18th century; formation of new nations and integration into the world economy after 1870.

3602 Latin America in the 20th Century (4)

Major political and socio-economic changes since 1900, including military dictatorships, revolutions, anti-U.S. sentiment, and debt crises. Special emphasis on why Latin America's political and economic development differs from that of the U.S. and Western Europe.

3615 Social Revolution in Latin America (4)

The major social revolutions of twentieth century Latin America, with emphasis on Mexico, Bolivia, Cuba, and Chile. Study and analysis of the historical origins, goals, ideology, achievements, and shortcomings of these revolutions.

3622 Mexico Since 1810 (4)

The development of Mexico from the wars of independence; evolution of political, economic, and social institutions.

3631 The ABC Nations of South America (4)

The development of Argentina, Brazil, and Chile in the nineteenth and twentieth centuries.

3632 Film and Society in Latin America (4)

Film as a reflection of major themes and issues in Latin America, e.g., slavery and race relations, women's role in society, emergence of the military as a dominant political force, U.S. attitudes toward Latin America.

General

3000 Contemporary World Problems (4)

Contemporary political, economic, social, and diplomatic problems in their world setting. East-West relations, the major powers, and the Third World. May be repeated for additional credit with other professors.

3003 The History of Utopia (4)

The Utopian tradition in Western political thought, philosophy, science fiction, art, and film: fantasy worlds and nightmare societies from Plato's Republic to the late 20th century. (Not open to students with credit for G S 4324 or HIST 3950.)

3005 Frankenstein: The Making of a Myth (4)

Mary Shelley's classic tale *Frankenstein* against the background of the Romantic movement. The Frankenstein story in literature, film, and other forms of popular culture as a critical insight into modern science and technology.

3100 Ancient Egyptian Civilization (4)

Survey of ancient Egyptian history, civilization, art, and religion from about 3100 B.C. to the conquest by

Alexander the Great (332 B.C.).

3331 History of Science (4)

(See [PHIL 3331](#) for course description.)

3332 Philosophy of Science (4)

(See [PHIL 3332](#) for course description.)

3575 Baseball in America (4)

The history of baseball and its role in American Society. 19th Century origins of the game, the major and minor leagues, amateur baseball from universities to prisons, the Negro leagues and integration, labor relations and cultural influences.

3711 Greek, Roman, and Medieval Political Thought (4)

(See [POSC 3711](#) for course description.)

3712 Early Modern Political Thought (4)

(See [POSC 3712](#) for course description.)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 5 units. A maximum of 5 units will be accepted toward the History major. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)

4030 Historiography (4)

The development of historical writing from antiquity to the present. Emphasis on the thought of Thucydides, St. Augustine, Vico, Hegel, and Toynbee. Survey of other significant historians.

4031 Proseminar in Historical Method (4)

Introduction to the methods of historical research through the preparation of a research paper. Prerequisite: senior standing.

4032 Introduction to Public History (4)

The use of historical theory and method in non-academic settings, including museums, archives, consulting organizations, historical societies, government agencies, business, and historical preservation projects. Field trips to selected non-academic settings.

4710 History and Trends in Nursing (4)

Survey of the development of modern nursing. Emphasis on social trends that have influenced the development of nursing; the Judeo-Christian tradition; the military heritage; the women's movement; developments in health care delivery. Cross-listed with [NURS 4710](#). Prerequisites: NURS 3307 and 3308, or consent of instructor. (Y)

4801-4899 Special Problems in History (1-4)

Readings, discussion, and research on significant historiographical problems. The titles and descriptions of Special Problems courses being taught each quarter are included in the Schedule of Classes each quarter. Prerequisite: consent of instructor. (A)

4900 Independent Study (1-4)

Supervised study. Prerequisite: consent of instructor. (A)

Human Development [HDEV]

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HUMAN DEVELOPMENT

Department of Human Development
School of Arts, Letters, and Social Sciences
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Professors:

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Associate Professors:

Rainer Bauer, Patricia Guthrie

Lecturer:

Helen Shoemaker

Adjunct Professor:

Laszlo P. Luka

PROGRAM DESCRIPTION

Human Development is an interdisciplinary field of academic study that has grown out of more traditional disciplines such as anthropology, biology, linguistics, psychology, and sociology. Students majoring in Human Development explore people's lives from conception and birth through old age and death. In their study of physical growth and change and the development of consciousness, knowledge, and relationships, they increase their understanding of themselves as well as of others in social, cultural, and historical terms.

In a world increasingly characterized by change, individuals are challenged to develop skills not directly addressed in traditional programs. Human Development majors concentrate on the development of self-awareness and on skills such as problem-solving, critical thinking, and written and oral communication. In addition to traditional forms of learning, students participate in group interaction, independent study, and field experience (here and/or in other countries). Students are educated to become effective leaders and organizers, cooperative team members, and qualified researchers, who, while developing a compassionate understanding of others, continue their own personal development.

CAREER OPPORTUNITIES

Graduates of the department work with people of all ages from different ethnic, cultural and/or socioeconomic backgrounds. Many graduates continue their education in areas such as counseling, psychotherapy, education, social work, business, public administration, law, medicine, theology, gerontology, and anthropology.

Human Development prepares students to work with children, adolescents, adults and the aged; with exceptional people, handicapped or gifted; in areas such as health, education, welfare, and correctional facilities; in business and industry; in public organizations and private enterprises; in religious and secular institutions; as administrators, managers, consultants, counselors, educators, trainers, and many others.

FEATURES

Human Development faculty members come from various disciplinary areas and have different orientations such as phenomenological, psychoanalytic, and structuralist. They engage in teamteaching to help students understand differing disciplinary perspectives on the same topics. Small seminars, laboratory and field assignments encourage students to integrate their learning and develop their cognitive, interactional, and problem-solving abilities.

Seniors study in depth some aspects of human development that are of interest to them. The program is designed so that students can study in disciplines outside the department and apply units to the major.

Internships are available in Human Development. Supervised work experience integrates academic learning and field experience, and promotes development of students' professional activities. Internships are graded Credit/No Credit only and may be repeated for credit.

To facilitate university study for students with family and/or job responsibilities, 43 of the 60 upper division units are tape recorded so that students need attend only one evening course per week during the junior year and two evening courses total during the senior year for the major requirements. Other major course requirements are taped live and duplicated for evening students both here and at the Contra Costa Campus. Students may listen to these tapes at the Music Listening Room in the Hayward Library or the Contra Costa Campus Library, or have them duplicated for home use. Instructions for the tape duplication system are available in the department office.

The Department of Human Development also offers its major through P.A.C.E. (Program for Adult College Education). Working students with 86-90 lower division transferable quarter units can achieve a B.A. in Human Development in 7 quarters taking coursework evenings and Saturdays through the specially designed P.A.C.E. format. Contact the P.A.C.E. office at 885-2989 for further information.

MAJOR REQUIREMENTS - B.A.

The major consists of 80 units; the B.A. degree requires a total of 186 units.

I. Lower Division (20 units)

In preparation for the upper division program, students must take 20 units from any combination of the following categories, with no more than 12 units in any one category.

- A. Anthropology
- B. Human biology, including biochemistry, pharmacology
- C. Child development
- D. Economics, including demography & political science

- E. Ethnic or area studies, sign language, foreign language, computer language
- F. Human development
- G. Mathematics, statistics, philosophy, linguistics, communication science
- H. Psychology
- I. Sociology
- J. Speech pathology
- K. Additional categories (e.g., gerontology, developmental disabilities, phenomenology) may be approved by the department.

II. Upper Division (60 units)

A. Core Sequence (36 units)

HDEV 3001, 3002, 3003 Behavioral and Biological Approaches in Human Development I, II, III (9 units)

HDEV 3011, 3012, 3013 Socio-cultural and Experiential Approaches in Human Development I, II, III (9 units)

HDEV 3021, 3022, 3023 Structure and Dynamics of Human Development I, II, III (9 units)

HDEV 3031, 3032, 3033 Process of Human Development I, II, III (9 units)

B. Option or Specialized Sequence (12 units)

To meet the diversity of interest among Human Development majors, the department has designed four specialized options: Childhood, Adolescence, Adult Development, or Gerontology. Students meeting the requirements for an option will receive recognition on their academic record indicating their achievement in this specialty area. Each option is designed with a specialized sequence of courses (12 units) and 12 units of senior projects.

Adolescence Option

The Adolescence Option focuses on issues arising during the teenage years, such as sex role development, career choice, pregnancy, drugs, and delinquency. Students who are thinking of careers in high school teaching, social work, counseling, and law will benefit from this option.

Select three courses from the following list for the specialized sequence (12 units):

BIOL 3060 Human Sexuality (4), 3070 Optimal Nutrition (4); E S 3105 African American Identity (4), 3165 African American Sexuality (4), 3310 Native American World View (4); HDEV 3800 Human Development and Interaction (4), 4325 Lesbian & Gay Lifespan Development (4), 4350 Intimate Relationships Throughout the Lifespan (4), 4870 Selected Topics in Human Development (If topic is related to adolescence) (4); PHIL 3150 Contemporary Ethics (4); P E 4615 Exercise and Stress (4), 4710 Psycho-Social Factors of Sport and Physical Education (4); PSYC 4660 The Psychology of the Healthy Personality (4); SOC 3411 Sociology of Sex Roles (4), 3421 Sociology of Popular Cultures (4), 3480 Violence and Conflict (4), 3501 Love and Friendship (4), 3520 Sociology of Minority Groups (4), 3730 Juvenile Delinquency (4), 3750 Alcohol and Drug Abuse (4), 4740 Criminology (4); SPCH 4830 Intercultural Communication (4), 4850 Female-Male Communication (4); WOST 3400 Women and Careers (4), 3530 Women and Their Bodies (4)

Senior Projects (12 units)

HDEV 4400 Adolescence (4)

HDEV 4880 Senior Group Project (4)

Either HDEV 4890 Senior Individual Project (4) or HDEV 4891 Senior Research Seminar

Students' Senior Project (HDEV 4890) must deal with an aspect of adolescent development.

Adult Development Option

The Adult Development Option is designed for those students who will be dealing with people ages 20-55 in career development, parenting and family life, mid-life crisis, empty-nest syndrome, and illness.

Select a total of three courses from the following lists for the specialized sequence (12 units):

ANTH 3740 Cross-Cultural Studies in Child Rearing (4), 3745 Cross-Cultural Studies in Human Sexuality (4); E S 3105 African American Identity (4), 3165 African American Sexuality (4), 3170 Mental Health in the African American Community (4), 3210 Latino Women in the United States (4); E S/WOST 3420 Minority Women in America (4); E S 3851 Asian American Men and Women (4);

HDEV 3600 Development of Religious and Secular World Views (4), 3850 My Life and Development (4), 4325 Lesbian and Gay Lifespan Development (4), 4350 Intimate Relations throughout the Lifespan (4), 4820 Advanced Study in Human Development (4) (when topic is related to adulthood), 4870 Selected Topics in Human Development (4) (if topic is related to adult development)

MCOM 4500 Women in the Media (4); POSC 3170 Public Policy on the Family (4), 3340 Women in Politics (4); PSYC 3410 The Psychology of Women (4), 3420 Stress and Coping (4), 4620 Theories of Personality (4), 4660 The Psychology of the Healthy Personality (4); REC 3100 Lifelong Leisure Transitions (4), 3200 Wellness through Leisure (4), 3800 Introduction to Therapeutic Recreation (4)

SOC 3410 Sociology of the Family (4), 3411 Sociology and Sex Roles (4), 3412 Marriage and Sex (4), 3413 Sociology of Parenting (4), 3415 Sociology of the African American Family (4), 3416 Sociology of the Mexican American Family (4), 3417 Sociology of the Asian American Family (4), 3750 Alcohol and Drug Abuse (4), 4720 Medical Sociology (4); SPCH 4850 Female-Male Communication (4); WOST 3400 Women and Careers (4), 3520 Mothers, Daughters, and Sons (4), 3530 Women and Their Bodies (4)

Senior Projects (12 units)

HDEV 4300 Adult Development (4)

HDEV 4880 Senior Group Project (4)

Either HDEV 4890 Senior Individual Project (4) or HDEV 4891 Senior Research Seminar

Students' Senior Project (HDEV 4890 or 4891) must deal with an aspect of adult development.

Childhood Option

The Childhood Option covers the years from birth to 12 and consists of required courses, electives, and field experience that focus on the infant/child. This option is especially useful to those thinking of careers involving work with children, such as teaching, day care, and school counseling.

Select at least three courses from the following list for the Specialized Sequence (12 units):

ANTH 3740 Cross Cultural Patterns in Child Rearing (4); DANC 3235* Dance for Children (4); EPSY 5021 The Exceptional Individual (4), 5121 Counseling Exceptional Children (4); HDEV 4510 Cognitive Development (4), 4520 Language Acquisition and the Symbolic Function (4); HDEV/T ED 4600 Seminar in Early Childhood (3); HDEV 4710 The Child in the Family (4); P E 4340* Motor Development (4), 4605* Special Populations: Psychomotor Disabilities and Implications (4); PSYC 4420 Developmental Psychology (4); SOC 3416* Sociology of the Mexican-American Family (4), 4750 Child Welfare (4); SPPA 4865** Language Disorders in Children (4); T ED 3500 Introduction to Early Childhood Studies (4), 5180 Play and Learning in the Education of the Young Child (4)

Senior Projects (12 units)

HDEV 4700 Childhood Development (4)

HDEV 4880 Senior Group Project (4)

Either HDEV 4890 Senior Individual Project (4) or HDEV 4891 Senior Research Seminar (4)

Students' Senior Individual Project (HDEV 4890 or 4891) must deal with a particular aspect of childhood development.

Gerontology Option

The Gerontology Option includes a total of 24 units, which focus on life transition occurring during the latter stages of the human lifespan. Such developmental issues dealing with middle aged and elder individuals include the study of death and dying. The option is completed by fulfilling major requirements in the following manner:

Specialized Sequence (12 units)

H SC 4601*** Health Care Administration I (4), 4602*** Health Care Administration II (4), 4004 Current Issues in Aging (4) or HDEV 4005 Aging and Diversity (4) (if not used to satisfy requirements for Senior Projects); PHIL 3160 Business and Professional Ethics (4); POSC 4911 Seminar in Administrative Ethics (4); REC 3800 Leisure Services and Special Groups (4), 4600 Recreation in Institutional Settings (4); SOC 3419 Death and Dying (4), 3715**** Social Services for the Elderly (4); SPPA 4866***** Aphasia in Adults (4)

Senior Projects (12 units)

HDEV 4004 Current Issues in Aging (4) or HDEV 4005 Aging and Diversity (4) (if not used to satisfy requirement for Specialized Sequence)

HDEV 4880 Senior Group Project (4)

Either HDEV 4890 Senior Individual Project (4) or HDEV 4891 Senior Research Seminar (4)

Students' Senior Project (HDEV 4890 or 4891) must deal with a particular aspect of development during the later part of human life.

Specialized Sequence

If students are not interested in an age-related option they may plan an individualized Specialized Sequence. Students may select 12 units of upper division courses from across the university sharing a focus on some aspect of Human Development. This creative use of coursework can help students achieve a more advanced understanding of a particular facet of Human Development. Students may specialize in development in a sociocultural group, public administration, management, science, pre-law, a special aspect of, approach to, or problem area of development, etc. Field experience for credit is combined with academic study in courses such as HDEV 4002, 4201, 4860 (Internship), and others. Courses outside of Human Development may be applied to general education requirements. Selection must be made under departmental faculty guidance.

Senior Projects (12 units)

Twelve units of individual and cooperative study on campus and in the field.

HDEV 4880 Senior Group Project (4)

HDEV 4890 Senior Individual Project (4) or HDEV 4891 Senior Research Seminar (4)

HDEV 4820 Advanced Study in Human Development or any other upper division HDEV course(s) (4)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

Departmental Honors

Students with a major and overall GPA of at least 3.5 may apply to the Departmental Honors Program while taking HDEV 3032 by contacting an advisor. Honors students take their 12 unit specialized sequence in the Department Honors' Sequence. Those who maintain a 3.5 or higher major and overall GPA and obtain a "B" or above in their Senior Individual Project to graduate with Departmental Honors.

MINOR REQUIREMENTS

The minor is designed for students who will be working with people in their career choice areas and would profit from gaining a life-span perspective on their own lives as well as those of the people with whom they will be living and working. The minor consists of 28 units. Select 28 units from any 3000 or 4000 level Human Development courses.

HUMAN DEVELOPMENT OPTION: LIBERAL STUDIES

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

Select two (2) of the following groups of courses (24 units):

Group One (12 units):

- HDEV 3001 Behavioral and Biological Approaches in Human Development I (3)
- HDEV 3011 Sociocultural and Experiential Approaches in Human Development I (3)
- HDEV 3021 Structure and Dynamics of Human Development I (3)
- HDEV 3031 Process of Human Development I (3)

Group Two (12 units):

- HDEV 3002 Behavioral and Biological Approaches in Human Development II (3)
- HDEV 3012 Sociocultural and Experiential Approaches in Human Development II (3)
- HDEV 3022 Structure and Dynamics of Human Development II (3)
- HDEV 3032 Process of Human Development II (3)

Group Three (12 units):

- HDEV 3003 Behavioral and Biological Approaches in Human Development III (3)
 - HDEV 3013 Sociocultural and Experiential Approaches in Human Development III (3)
 - HDEV 3023 Structure and Dynamics of Human Development III (3)
 - HDEV 3033 Process of Human Development III (3)
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COURSES

(HDEV 3001, 3002, 3003, 3011, 3012, 3013, 3021, 3022, 3023, 3031, 3032, 3033, 4004, 4400, 4300, 4700 are also available through an audiotape service offered by the department.)

1200 Introduction to Human Development (4)

Introduction to the interdisciplinary study of human development. Exploring and using varied approaches to the problems of developmental transitions in diverse populations.

2001 Human Development in Contemporary Society (4)

Introduction to the study of social and environmental problems influencing human development.

3001 Behavioral and Biological Approaches in Human Development I (3)

Study of human development, utilizing concepts and methodologies of the behavioral and biological sciences. (F)

3002 Behavioral and Biological Approaches in Human Development II (3)

Continuation of HDEV 3001. Prerequisite: HDEV 3001. (W)

3003 Behavioral and Biological Approaches in Human Development III (3)

Continuation of HDEV 3002. Prerequisite: HDEV 3002. (Sp)

3011 Sociocultural and Experiential Approaches in Human Development I (3)

Basic concepts and methods in the study of sociocultural and experiential aspects of human development. (F)

3012 Sociocultural and Experiential Approaches in Human Development II (3)

Continuation of HDEV 3011. Prerequisite: HDEV 3011. (W)

3013 Sociocultural and Experiential Approaches in Human Development III (3)

Continuation of HDEV 3012. Prerequisite: HDEV 3012. (Sp)

3021 Structure and Dynamics of Human Development I (3)

The nature, characteristics, and study of human development: interdisciplinary analysis and integration. Concurrent enrollment in HDEV 3031 and concurrent or prior enrollment in HDEV 3001 and 3011 required. Three hrs. lect./disc. (F)

3022 Structure and Dynamics of Human Development II (3)

Continuation of HDEV 3021, which is prerequisite. Concurrent enrollment in HDEV 3032 and concurrent or prior enrollment in HDEV 3002 and 3012 required. (W)

3023 Structure and Dynamics of Human Development III (3)

Continuation of HDEV 3022, which is prerequisite. Concurrent enrollment in HDEV 3033 and concurrent or prior enrollment in HDEV 3003 and 3013 required. (Sp)

3031 Process of Human Development I (3)

Clinical study of developmental processes and their conceptualization in laboratory and field settings. Concurrent enrollment in HDEV 3021 required. (F)

3032 Process of Human Development II (3)

Continuation of HDEV 3031, which is prerequisite. Concurrent enrollment in HDEV 3022 required. (W)

3033 Process of Human Development III (3)

Continuation of HDEV 3032, which is prerequisite. Concurrent enrollment in HDEV 3023 required. (Sp)

3333 Cultural Groups: Construction (4)

Interdisciplinary study of development and maintenance of cultural groups, the construction of traditions, socially shared meanings, and communicative practices. Emphasis on communication skills, language acquisition, analysis of messages, rhetorical construction, and deconstruction of cultural consciousness. Team-taught symposium and discussion.

3334 Cultural Groups: Conflict (4)

Interdisciplinary study of cultural group conflict. Emphasis on group conflict structure and dynamics, contribution of group consciousness to inter-group conflict, rhetorical strategies that invite conflict. U.S. majority and minority group contestations used to analyze conflict. Team-taught symposium and discussion.

3335 Cultural Groups: Cooperation (4)

Interdisciplinary study of the relationship between cultural ideologies, institutional structures, and cultural group conflict management. Management through negotiation explored through an in-depth study of the cultural values and institutions of Mayan and Tlingit Indians. Team-taught symposium and discussion.

3600 Development of Religious and Secular World Views (4)

Development of religious and secular world views, value systems and relationships over the life span.

3800 Human Development and Interaction (4)

Interdisciplinary methodologies (integrating sociocultural and biological perspectives) are examined and applied to understanding the human lifespan in interpersonal contexts.

3850 My Life and Development (4)

Autobiographical writings are constructed and examined through developmental and psychohistorical theories and methods. Prerequisite: consent of instructor. (Y)

4004 Current Issues in Aging (4)

Through the exploration and use of interdisciplinary methodologies, issues in aging will be considered (e.g. social class, economics, biological changes, policies, individual differences).

4005 Aging and Diversity (4)

An interdisciplinary exploration of interaction between aging and race, ethnicity, and gender.

4200 Planning and Management in Child Development Settings (3)

Child Development programs from an interdisciplinary perspective. Structure, program planning, implementation, evaluation, relations among staff, clients and community. Concurrent registration in HDEV 4201 required. Prerequisite: HDEV 2001, 3033, 3800 or equivalent. (Y)

4201 Field Study in Human Development: Childhood (1)

Direct observation and analysis of child development program settings: structure, program planning, implementation, evaluation, relations among staff, clients, and community. Concurrent registration in HDEV 4200 required. Two hrs. act.(Y)

4300 Adult Development (4)

Normative life crises and transition in adulthood--affective, cognitive, cultural, economic, interpersonal, physiological, social, spiritual, vocational aspects. (Y)

4310 Human Development in the Changing Workplace (4)

A study of developmental issues that arise in contemporary work environments; creative professional identities under uncertain conditions of employment, reconciling adult commitments splintered by career demands, and developing interaction skills in work settings rich in human diversity; confronting work place inequalities.

4325 Lesbian and Gay Lifespan Development (4)

Introduction to theoretical models and research relevant to the development of lesbians and gay men. Stereotypes and myths which interfere with an informed understanding of these sexual minorities. Issues of gender identity, sexual orientation, sexuality, love relationships, friendship networks, family and community relations. Cross-listed with [EPSY 4325](#).

4350 Intimate Relationships Throughout the Life Span (4)

The essential nature of parent-child, friendship, and sexual love relations; the structure of these important intimate relations. Developmental changes in these three important relationships during childhood, adolescence, adulthood, and old age. (Y)

4360 Human Development in Cyberspace (4)

Reality of cyberspace: using the Internet and creating a virtual classroom, students investigate how technology changes in communication and learning impact development in their lives, work, and society. Three hrs. lect., 2 hrs. act.

4400 Adolescence (4)

Developmental issues arising during the teenage years--career choice, intimacy, biological changes, and attainment of cognitive, social, biological, and emotional maturity. (Y)

4444 Imagination (4)

An interdisciplinary framework to explore (1) the history of the concept of imagination, (2) the development of

imagination of individuals through the lifespan, and (3) the impact of modern technologies on imagination. Three hrs. lect., 2 hrs act.

4510 Cognitive Development (4)

The development of cognitive functions from infancy through old age. (Y)

4520 Language Acquisition and the Symbolic Function (4)

An interdisciplinary study of the development of a first language and the biological, linguistic, cognitive, and social factors involved. Topics include the development of prelinguistic skills, semantics, syntax, discourse skills, and phonology, as well as an investigation of the theories and hypotheses proposed to account for acquisition. (F, W, Sp)

4600 Seminar in Early Childhood Studies (3)

Integrative study of influences on children and their development. Discussion of research methods and findings. Not open to students who have received credit for T ED 4600. Prerequisites: T ED 3500; HDEV 4520.

4700 Childhood Development (4)

The crucial period of rapid development from conception to pre-adolescence viewed from various perspectives: biological, psychoanalytic, cognitive-structural, stimulus-response, humanistic. Prenatal care and counseling, attachment-separation, parenting and institutional care. Prerequisites: HDEV 2001, 3033, 3800, or equivalent. (Y)

4710 The Child in the Family and in the Community (4)

Child development in a variety of familial, communal, and institutional settings. Problems of child abuse, divorce, foster care and adoption. (Y)

4820 Advanced Study in Human Development (4)

Written analyses of special problems in human development. Fulfills the University Writing Skills Requirement for students who began work on the present degree before Fall quarter, 1985. Prerequisites: senior standing and HDEV 3022. (Y)

4860 Internship in Human Development (1-4)

Supervised work experience that integrates academic learning and field experience, and promotes development of students' professional activities. Prerequisite: instructor approval. Credit/No credit grading only; may be repeated for credit. (Y)

4870 Selected Topics in Human Development (4)

Seminar on selected area of study in human development. May be repeated with different topic. Prerequisites: senior standing and HDEV 3023. (Y)

4880 Senior Group Project in Human Development (4)

Problem solving and analysis: intensive cooperative study of selected problems. Prerequisites: senior standing and HDEV 3023. (Y)

4890 Senior Individual Project in Human Development (4)

Independent work focused on specialized topic under faculty guidance. Prerequisites: senior standing and HDEV 3023 (Y)

4891 Senior Research Seminar (4)

Using various methodologies, students will individually collect and analyze data, write a research report, and hold interdisciplinary discussions regarding the advantages and limitations of various research methodologies. Prerequisite: senior standing and HDEV 3023.

4900 Independent Study (1-4)

* Has prerequisite(s) not included in program.

** To be taken after or concurrently with HDEV 4520.

*** These two classes must be taken together

**** Course has prerequisite not included in program

***** Prerequisite: consent of instructor

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Humanities [HUM]

- [PROGRAM DESCRIPTION](#)
- [HUMANITIES COURSES](#)

HUMANITIES

Department of Modern Languages and Literatures
School of Arts, Letters, and Social Sciences
Office: Warren Hall UM67
Phone: (510) 885-3211

Professor:

Vincenzo Traversa (Director)

PROGRAM INFORMATION

The School of Arts, Letters, and Social Sciences offers a series of three survey courses which is designed to provide freshmen students with a broad introduction to the humanities and to the study of Western Civilization.

HUMANITIES COURSES

1001 Humanities I (4)

Dawn of Western Civilization: Survey of major ideas, achievements, and failures of Greco-Roman antiquity and the Middle Ages examined from an historical perspective and based upon readings in literature and philosophy. Selections from Iliad, Aeneid, Oedipus Rex, Bible, Divine Comedy, Canterbury Tales, etc. (F)

1002 Humanities II (4)

Western Civilization in Transition: Survey of major ideas, achievements, and failures of the Renaissance, Reformation, and Enlightenment examined from an historical perspective and based upon readings in literature and philosophy. Selections from Petrarch, Erasmus, Machiavelli, Cervantes, Swift, Voltaire, Descartes, Luther, Locke, etc. (W)

1003 Humanities III (4)

Modern Western Civilization: Survey of major ideas, achievements and failures of 19th and 20th Century European and American civilization, based upon readings in literature and philosophy, and examined from an historical perspective that recognizes the changing roles of women and ethnic minorities and the interplay of various social groups. (Sp)

Interdisciplinary Studies [INTD]

- [PROGRAM DESCRIPTION](#)
- [COURSES](#)

INTERDISCIPLINARY STUDIES

School of Arts, Letters, and Social Sciences

Office: Warren Hall, Room 815

Phone: (510) 885-3161

Dean: Carlos Navarro

Faculty:

Ivan D. Kovacs (Human Development), William J. Langan (Philosophy), Richard W. Vrmeer (Public Administration)

PROGRAM DESCRIPTION

This is a team-taught, interdisciplinary sequence of courses that offers an integrated approach to the upper division GE requirements, thereby providing more focus to the General Education package. The three quarters jointly satisfy upper division General Education requirements in Humanities, Social Sciences, and Capstone.

COURSES

The School of Arts, Letters, and Social Sciences offers interdisciplinary courses with an INTD prefix.

3001 In Search of Self: The Mystery of Self and Other (4)

Different conceptions of self and other; the influence of personal experiences, social environment and cultural tradition on our sense of self; the process of becoming oneself; problems of identity, alienation and authenticity; self as relation; self as narrative. Historical, contemporary, and cross-cultural readings from a variety of disciplines in the liberal arts and sciences.

3002 In Search of Self: Conflict and Value (4)

Being with others; love and friendship; individualism and social identity; the tension between personal and social values; diversity and conflict; cultural relativism and the foundation of values. Historical, contemporary, and cross-cultural readings drawn from a variety of disciplines in the liberal arts and sciences.

3003 In Search of Self: Truth and Reality (4)

The quest for certitude; meaning and limits of knowledge; truth in myth, religion and science; the tyranny of technological thinking; beyond objectivism and subjectivism. Historical, contemporary, and cross-cultural readings drawn from a variety of disciplines in the liberal arts and sciences.

International Business

- [PROGRAM DESCRIPTION](#)
- [INTERNATIONAL BUSINESS MINOR](#)

INTERNATIONAL BUSINESS

School of Business and Economics

Music and Business Bldg. 2571; Phone (510) 885-3311

School of Arts, Letters, and Social Sciences

Warren Hall (LM 69); Phone (510) 885-3390

Professors:

Loretta Breuning (Department of Management and Finance), Donald Warrin (Department of Modern Languages and Literatures)

PROGRAM DESCRIPTION

The International Business minor is designed to provide you with a foundation in: (1) general business administration; (2) a specialty within business in finance, marketing, or personnel administration/industrial relations; (3) international business; and (4) international studies including languages and cultural and political background.

Coursework required for the minor has been combined into three modules: (A) Business Administration, (B) Specialty/International Business, and (C) International Studies. Students in Business Administration will have satisfied Module A as part of their Business Administration major and need only Modules B and C -- a total of 40-48 units -- to complete an International Business minor. Students in Arts, Letters, and Social Sciences with a major or minor in the Department of Modern Languages and Literatures, can easily have at least 24 units of Module C satisfied as part of their major or minor program, leaving them with Modules A and B, and possibly 8 units of C -- a total of 40-48 units -- to complete for an International Business minor.

INTERNATIONAL BUSINESS MINOR

All three modules must be satisfied. Business Administration majors substituting the minor for an option must take all coursework in the minor for a letter grade. Note that units taken to satisfy the requirements of a minor can be applied to General Education requirements wherever applicable as long as the units are outside the prefixes of the student's major. (Note: ACCT, CIS, FIN, MGMT, MKTG, and T C are prefixes in the Business Administration major.)

Module A, Business Administration (24 units)

ACCT 2210 Accounting for Non-Business Majors (4), or ACCT 2251 Principles of Accounting I (4) (Students intending to take only one course in Accounting should take ACCT 2210. Students intending to take further elective courses in Accounting or to attend graduate school in Economics, Law, or Business Administration should take ACCT 2251 in combination with completing ACCT 2252 as an elective outside the minor.)

ECON 2301 Principles of Microeconomics (4) ECON 2302 Principles of Macroeconomics (4) MGMT 3600 Theories of Management (4) MGMT 4670 Multinational Business (4) MKTG 3401 Introduction to Marketing Management (4)

Module B, Specialty/International Business (16 units)

I. Complete one of the three following specialty areas (8 units):

A. Finance

(Business Administration majors selecting the Finance specialty should choose two courses from FIN 3320, 4310, 4320 since they will be completing FIN 3300 as part of the upper division Business Administration core requirements.)

Required (4 units):

FIN 3300* Financial Management (4)

Choice of one (4 units):

FIN 3320* Financial Markets and Services (4), 4310* Investment Analysis (4), 4320* Problems in Corporate Finance (4)

B. Marketing

Required (4 units):

MKTG 3410 Advertising Management (4) or MKTG 3420 Sales Analysis and Sales Management (4)

Choice of one (4 units):

MKTG 3420 Sales Analysis and Sales Management (4), 4422 Sales Training (4), 4445* Seminar in Marketing Research (4)

C. Human Resources Management (HRM)

(Business Administration majors selecting the HRM specialty should choose either MGMT 3610 and 4615 or MGMT 4680 and 4683 since they will be completing MGMT 3680 as part of the upper division Business Administration core requirements.)

Choice of one set (8 units):

1. MGMT 3610 Human Resources Management (4), and either 3680 Industrial Relations (4), or 4615 Compensation and Benefits (4);
2. MGMT 3680 Industrial Relations (4), and either 4680 Collective Bargaining and Labor Law (4), or 4683 Research in Labor Relations (4)

II. Select two courses from the following list, with one of the two courses being in the student's chosen specialty area (8 units):

FIN 4375 International Business Finance (4); ECON 4700 International Trade (4); ECON 4705 International Finance (4) (Finance specialty); MGMT 4675 International Industrial Relations (4) (HRM specialty); or MKTG 4470 International Marketing (4) (Marketing specialty)

Module C, International Studies (24-32 units)

(All of the courses taken to satisfy items C II and C III in this module must have their content reaching primarily beyond the student's native culture and geographic region. A student's choices of language and area studies courses must relate to the same geographic region. Students whose native language is other than English may choose English

as their second language, if their native language is determined by the committee administering the minor to have sufficient significance as a language of commerce. Students using English as their second language may make either U.S./Canada or Great Britain (not both) the focus of their C III coursework.)

I. Choice of one of the following (4 units):

HIST 3550 The History of U.S. International Relations (4); INTS 3100 Global Systems (4); POSC 3520 International Relations (4); SOC 3431 Seminar in World Development (4); SPCH 4830 Intercultural Communication (4)

II. Intermediate level competency in a modern language including a course in business terminology if available (0-24 units)

(Competency must be certified by the Cal State Hayward Department of Modern Languages and Literatures. *Competency*--certified language units based on other than regular classroom transcript coursework or based on courses challenged for CR/NC will not count as part of the minimum 24 units required for Module C.)

III. A minimum of 4 units in area studies, e.g., Latin America, Middle East, Northern Europe, Southeast Asia, with sufficient additional units in C III to bring the total acceptable credit units for Module C to a minimum of 24 units (4-20 units). (Courses for C III must be approved by the assigned International Business Minor advisor.)

- *A maximum of 48 units outside a Business Administration or Modern Language major is required.*

* Has one or more prerequisites not included in the minor.

International Programs of the CSU

- [COURSES](#)

INTERNATIONAL PROGRAMS OF THE CSU

Associate Professor:

Rhoda Kaufman, Theatre and Dance

Coordinator:

John Manion, Curriculum and Academic Programs

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 Office of International Programs has contributed to this effort by providing qualified students an affordable opportunity to continue their studies abroad for a full academic year. Approximately 11,000 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 Office serves the needs of students in over 100 designated academic majors. Affiliated with 36 recognized universities and institutions of higher education in 16 countries, the International Programs Office also offers a wide selection of study locales and learning environments.

Australia:

The University of Western Sydney

Brazil:

Universidade de São Paulo

Canada:

The universities of the Province of Quebec (13 institutions, including Université de Montreal, Concordia University, Université Laval, McGill University, Université du Quebec system, Bishop's University, *i.a.*)

Denmark:

Denmark's International Study Program (the international education affiliate of the University of Copenhagen)

France:

Mission interuniversitaire de coordination des échanges franco-américains, Universités de Paris III, V, VI, VIII, X, XI, XII, XIII, and Université de Droit, d'Économie et des Sciences d'Aix-Marseille (Aix-en-Provence)

Germany:

The institutions of higher education in the German Federal State of Baden-Württemberg, including Ruprecht-Karls-Universität (Heidelberg), Universität Hohenheim (Hohenheim), Fachhochschule Nürtingen (Nürtingen), Fachhochschule Reutlingen (Reutlingen), Berufsakademie Stuttgart (Stuttgart), Universität Stuttgart (Stuttgart), and Eberhard-Karls-Universität (Tübingen)

Israel:

Tel Aviv University and The Hebrew University of Jerusalem

Italy:

CSU Study Center (Florence), Università degli Studi di Firenze, and La Accademia di Belle Arti di Firenze

Japan:

Waseda University (Tokyo)

Mexico:

Universidad Iberoamericana (Mexico City), and Universidad Pedagogica Nacional

New Zealand:

Lincoln University (Christchurch), and Massey University (Palmerston North)

Spain:

Universidad Complutense de Madrid, and Universidad de Granada

Sweden:

Uppsala Universitet

Taiwan:

National Chengchi University (Taipei)

United Kingdom:

Bradford University, Bristol University, Kingston University, Sheffield University, and University of Swansea (Wales)

Zimbabwe:

University of Zimbabwe (Harare)

The 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 college if they can meet this requirement. Students must also possess a current cumulative grade point average of 2.75 or 3.0, depending on the program for which they apply. Some programs also have language study and/or other coursework prerequisites.

Additional information and application materials may be obtained from Dr. Rhoda Kaufman, Cal State Hayward Academic Council Representative (RO 215, 885-3179), or John Manion, Curriculum and Academic Programs (CAP) (WA 859, 885-3366), or by writing to The California State University International Programs, 400 Golden Shore, Suite 122, Long Beach, California 90802-4275. Applications for the academic year overseas must be submitted by the preceding February 1.

Graduate Study

Please see "[May I Receive Credit for Courses Taken Elsewhere?](#)" in the Graduate and Post-baccalaureate Studies chapter.

Other Programs

Please see "[Study Abroad.](#)" in the General Information chapter.

COURSES

Courses taken by students enrolled in the International Programs are shown on the Cal State Hayward transcripts in terms of Cal State Hayward catalog designations. In the absence of equivalents, courses are shown on Cal State Hayward transcripts as follows:

(Dept.) 2000 IP (course title) Lower Division

(Dept.) 4000 IP (course title) Upper Division

(Dept.) 6000 IP (course title) Graduate

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International Studies [INTS]

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- [CAREER OPPORTUNITIES](#)
- [MAJOR REQUIREMENTS](#) ■ [B.A.](#)
- [MINOR REQUIREMENTS](#)
- [COURSES](#)

INTERNATIONAL STUDIES

Department of Modern Languages and Literatures
School of Arts, Letters, and Social Sciences
Office: Warren Hall UM67
Phone: (510) 885-3211

Professors:

Loretta Breuning (Management and Finance), Herbert M. Eder (Geography and Environmental Studies), Shyam J. Kamath (Economics), Bruce E. MacNab (Marketing), Donald O. Warrin (Director) (Modern Languages and Literatures)

Associate Professor:

Henry F. Reichman (History)

Assistant Professor:

Norman Bowen (Political Science)

PROGRAM DESCRIPTION

The International Studies major consists of an integrated group of courses reflecting international aspects of various disciplines. It is designed to provide the student with a broad base of understanding of the interrelationship of the world community, while at the same time providing the opportunity to specialize in an area of interest. A minor in International Studies is also offered.

The International Studies major consists of a lower division requirement of twelve (12) units in Economics and Geography/Environmental Studies and, optionally, Anthropology, plus a foreign language requirement. The upper division requirements include a methods course and three INTS courses (an introductory upper division course, a senior seminar, and an international field experience). The student will complete the major with sixteen (16) units of international coursework with a particular emphasis and sixteen (16) units selected from a list of electives.

FEATURES

The university encourages firsthand experience abroad. INTS 4100 (International Field Work) is designed to afford

such an opportunity. Optimally the student will elect to complete the internship, either paid or voluntary, in a foreign country. The University recognizes that this may not always be possible and therefore accepts the completion of the internship locally if a substantial portion of the work experience is internationally related. The student may also elect to fulfill the international work experience requirement by completing a course of study through the CSU International Programs or a recognized quarter, semester, or summer program abroad. Any such activity must be approved by an International Studies advisor before being undertaken.

CAREER OPPORTUNITIES

International Business ■ International Organizations ■ Federal Government ■ Journalism ■ Law ■ Local services to foreign language speakers

MAJOR REQUIREMENTS ■ B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 58-85 units; the B.A. degree requires a total of 186 units.

I. Lower Division (12-36 units)

Select one course from each group

- A. ANTH 2300 Cultural Anthropology (4) or GEOG 2300 Cultural Geography (4)
- B. ECON 1000 Economics of Public Issues (4) or ECON 2301 Principles of Microeconomics (4) or ECON 2302 Principles of Macroeconomics (4)
- C. GEOG 2310 Economic Geography (4)
- D. Modern Language Requirement (0-24 units)
Oral and written proficiency in a modern foreign language equivalent to two full years of university-level studies. The requirement can be fulfilled by the recent completion of the third quarter of intermediate language at Cal State, Hayward or by an examination offered by the Department of Modern Languages and Literatures measuring oral and written proficiency at that level.

II. Upper Division Core (10-12 units)

- A. INTS 3100 Global Systems (4) and INTS 4500 Senior Seminar (4)
- B. International Field Experience (minimum 2 units) through one of the following: INTS 4100 International Field Work (2-4) or an approved course of study in a foreign country.

Note: In order to fulfill this requirement, any experiential activity or course of study must be pre-approved by an International Studies advisor.

III. Methods Course (4-5 units)

One methods course selected from the following list:

- ANTH 4310 Field Course in Ethnography (5)
- ECON 4400 Introduction to Econometrics (4)
- MGMT 3100 Introduction to Quantitative Methods in Business (5)
- PHIL 3321 Philosophy of the Human Sciences (4)
- POSC 3010 Political Inquiry: Scope & Methods (4)

PSYC 3090 Methods of Investigation in Psychology (4)
SOC 3000 Introduction to Sociological Research (4)
SOC 4111 Methods of Sociological Research (4)
STAT 3010 Statistical Methods in the Social Sciences (4)
STAT 4610 Nonparametric Statistical Methods for the Social Science (4)

IV. Area of Emphasis (16 units)

Emphasis courses: 4 courses (16 units) to be chosen with the approval of an advisor in either (1) a discipline area (example: Economics, History); (2) a regional area (example: Europe, Latin America); or (3) a topic area (example: arms control, economic development, environmental issues). All courses selected should be internationally relevant.

V. Upper Division Electives (16 units):

Select from the following with no more than 2 courses in any one discipline:

ANTH 3000 Anthropology in the Modern World (4), (if ANTH 2300 has not been taken); or any upper division anthropology course with primarily international content.)
ECON: Any upper division International Economics course
FIN 4375 International Financial Management (4)
MLL: Any upper division modern language course not primarily devoted to literature.
GEOG/ENVT: Any geography or environmental studies course with primarily international content.
HIST: Any upper division modern history course with primarily international content.
INTS: Any upper division international studies course.
MGMT 4670 Multinational Business (4)
MKTG 4470 International Marketing (4)
MCOM 4110 International Communication (4)
POSC: Any upper division political science course devoted to comparative government or international relations.
SOC 3431 Seminar in World Development (4)
SPCH 4830 Intercultural Communication (4)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills Requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 28-40 units.

I. Lower Division (8-20 units)

- A. Twelve (12) units of a modern foreign language or the equivalent as determined by examination. The language, when possible, should be coordinated with the student's other coursework in the minor. It is strongly recommended that a student achieve a higher level of proficiency in a foreign language through courses in language, culture, or literature.
- B. Eight (8) units selected from:
 1. ANTH 2300 Cultural Anthropology.(4) or GEOG 2300 Cultural Geography (4)
 2. ENVT 2000 Introduction to Environmental Studies (4) or GEOG 2310 Economic and Resource Geography (4)
 3. POSC 1300 Foreign Governments (4) or POSC 1500 World Politics (4)

4. ECON 1000 Economics of Public Issues (4) or ECON 2301 Principles of Microeconomics (4) or ECON 2302 Principles of Macroeconomics (4)

II. Upper Division (20 units):

- A. INTS 3100 Global Systems (4)
B. Sixteen (16) units of upper division international course work from the School of Arts, Letters, and Social Sciences (ALSS) or the School of Business and Economics, selected with the approval of an International Studies Minor advisor. No more than eight (8) units may be taken in any one department; a minimum of eight (8) units must be taken in ALSS.

COURSES

3100 Global Systems (4)

The wide range of global systems which have evolved to provide a framework for international transactions and problem-solving. Focus on global systems in the areas of politics, economics, mass media, science/technology, and basic human needs. The origins, objectives, and institutional capabilities of existing global systems in each area.

4100 International Field Work (2-4)

Supervised field placement with a company, non-profit organization or government agency in which a substantial portion of the work experience is internationally related. Foreign placements are encouraged. CR/NC grading only. May be repeated once for credit for a maximum of 8 units.

4500 Senior Seminar (4)

Advanced analysis and evaluation of global systems. Study of theoretical models. Prerequisite: INTS 3100.

4900 Independent Study (1-4)

Kinesiology [PE]

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- [SINGLE SUBJECT MATTER PREPARATION PROGRAM](#)
- [UNDERGRADUATE COURSES](#)

KINESIOLOGY

Department of Kinesiology and Physical Education
School of Education and Allied Studies
Office: Physical Education Bldg. 130
Phone: (510) 885-3061

Professors:

Cynthia Berrol, Calvin S. Caplan, Stanley J. Clark, Herbert M. Graw, Don R. Hudson, Dorie Krepton, John Z. Ostarello, Jr., Richard S. Rivenes (Chair), Timothy Tierney, F. Douglas Weiss, Robert W. Zambetti

Associate Professor:

Arlene H. Smith

Assistant Professor:

Catherine Inouye

Lecturers:

Glen Borgeson, Sheri Colberg, Paula Congleton, Jair Fory, Anthony Garcia, Pamela Lewin, Robert Malstrom, Dirk Morrison, Mary Murphy, Donald T. Sawyer, Gary Stewart

Director of Athletics:

F. Douglas Weiss

PROGRAM DESCRIPTION

Kinesiology is the study and analysis of human motor tasks and those physical activities yielding exercise benefits and/or satisfying a person's competitive nature. Physical Education is the professional application of the study of Kinesiology. It is instruction that provides the individual with the skills, techniques and knowledge necessary for successful and enjoyable participation in sport and exercise.

The purposes of the Department of Kinesiology and Physical Education are (1) to provide opportunities for learning and participation in a wide variety of motor activities at all levels, from beginning instruction through intercollegiate competition; and (2) to provide an opportunity for students to study the discipline of kinesiology. Such study includes an investigation into the nature of motor performance, how it is assessed, what its effects are upon the rest of the system; and how motor performance is learned. It also involves an investigation of the historical, cultural,

philosophical and social factors which result from and influence play, games, and sports.

The department's program offers courses appropriate to the general education curriculum of the university. It provides the necessary foundation for students who wish to continue their own personal lifelong activities. It includes the application of knowledge acquired in the study of the discipline to such professional fields as teaching, coaching, and physical therapy, and to graduate study.

The major in Kinesiology and Physical Education includes both an academic as well as a performance base. Understanding and appreciation are enhanced when the student takes an active role in performance.

CAREER OPPORTUNITIES

Athletic Trainer ■ Activities Director ■ Coach ■ Community College Teacher ■ Community Fitness Agency Director ■ Exercise/Nutrition Counselor ■ Physical Education Teacher ■ Physical Therapist ■ University Instructor ■ Wellness Specialist

FEATURES

Many of the physical education facilities are open to the campus community when not being used for classes. These include swimming pools, tennis courts, handball courts, the gymnasium, and outdoor fields.

The Recreational Activities Program, sponsored by the Associated Students, offers fitness classes and open court hours for students and the community.

Students enrolled in the department's ten intercollegiate athletic programs have the opportunity to engage in numerous field trips throughout California and, in some cases, in neighboring states. As a member of the Northern California Athletic Conference (NCAC), students travel to compete against other NCAC institutions. The intercollegiate athletic program includes: basketball, cross country and soccer for men and women; baseball for men; and softball, swimming and volleyball for women.

There are two scholarships housed within the Department of Kinesiology and Physical Education. The recipient of the Helen C. Jacobsen Affiliates Scholarship (\$1,000) is identified each Winter with the award applying to the subsequent academic year. Recipients of the Joe Morgan Scholarship, named for the Hall of Fame baseball player who is a Cal State Hayward graduate, are also identified each Winter with the award(s) applying to the subsequent year. The amount of the Joe Morgan award varies and multiple awards may be given.

MAJOR REQUIREMENTS - B.S.

Because requirements are subject to change, consult your advisor for clarification and interpretation of major requirements. The major consists of 72-116 units; the B.S. degree requires a total of 186 units.

I. Lower Division

The lower division requirements vary depending on the option. Each student must complete one of the following options: Athletic Training, Exercise Nutrition and Wellness, Exercise Physiology, Physical Education Teaching, Pre-Physical Therapy, Special Studies. The lower division requirements are listed with the option requirements.

II. Upper Division Core (37 units)

P E 3300 Kinesiological Measurement (5)
P E 3305 Structural Kinesiology (5)
P E 3310 Biomechanics (5)
P E 3320 Exercise Physiology (5)
P E 3330 Sensorimotor Skill (5)
P E 3700 History of Sport and Physical Education (4)
P E 3740 Philosophical Foundations of Sport and Physical Education (4)
P E 3750 Sport in Contemporary Society (4)

III. Option Requirements

(In addition to the upper division requirements listed above, please be advised of the upper division option requirements also to be taken.)

A. Athletic Training Option (41 units)

The Athletic Training option provides an opportunity to specialize in prevention, management and rehabilitation of athletic injuries and prepares students for the National Athletic Trainers Association (NATA) certification. The major with this option totals 84-88 units.

1. Lower Division (18 units)

BIOL 1001, 1002 Introduction to Biology, Lab (5)
BIOL 2010 Human Physiology & Anatomy I (5)
P E 1625 Nutrition and Performance (4)
P E 2600 Introduction to Athletic Training (4)

2. Upper Division (23 units)

P E 3600 Care & Prevention of Athletic Injuries (5)
P E 3601 Athletic Training: Modalities and Rehabilitation (4)
P E 4030 Professional Field Experience (2)
P E 4600 Athletic Training Practicum (2, 2)
P E 4610 Exercise Prescription (4)
P E 4650 First Aid and Safety (4)

B. Exercise Nutrition and Wellness Option (54 units)

The Exercise Nutrition and Wellness Option explores the relationship between nutrition and exercise. Both metabolic and behavioral implications are investigated. The major with this option totals 97-101 units.

1. Lower Division (30 units)

BIOL 1001, 1002 Introduction to Biology, Lab (5)
BIOL 2010 Human Physiology and Anatomy I (5)
CHEM 1601, 1602, 1603 Basic Chemistry for the Health Sciences (12)
P E 1625 Nutrition and Performance (4)
P E 2600 Introduction to Athletic Training (4)

2. Upper Division (24 units)

P E 4005 Exercise Nutrition and Metabolism (4)
P E 4010 Contemporary Perspectives in Exercise Nutrition (4)
P E 4030/4031 Professional Field Experience (4)
P E 4330 Clinical Exercise Physiology (4)
P E 4610 Exercise Prescription (4)
P E 4615 Exercise and Stress (4)

C. Exercise Physiology Option (61 units)

The Exercise Physiology Option provides a course of study which focuses on the response of human physiological systems to exercise. The major with this option totals 104-108 units.

1. Lower Division Requirements (29 units)
 - BIOL 1001, 1002 Introduction to Biology, Lab (5)
 - BIOL 2010 Human Physiology and Anatomy I (5)
 - BIOL 2020 Human Physiology and Anatomy II (4)
 - CHEM 1101, 2, 3 General Chemistry (15)
2. Upper Division Option Requirements (32 units)
 - P E 4000 Exercise Nutrition and Metabolism (4)
 - P E 4030/4031 Professional Field Experience (4)
 - P E 4320 Environmental Exercise Physiology (4)
 - P E 4325 Neuromuscular Function in Performance (4)
 - P E 4330 Clinical Exercise Physiology (4)
 - P E 4335 Exercise, Cardiopulmonary and Metabolic Disease (4)
 - P E 4610 Exercise Prescription (4)
 - P E 4615 Exercise and Stress (4)

D. Pre-Physical Therapy Option (68-69 units)

The Pre-Physical Therapy Option satisfies the majority of, if not all, prerequisite coursework needed to gain admission to various California Schools of Physical Therapy. The major with this option totals 111-116 units.

1. Lower Division (51 units)
 - BIOL 1301 Foundations of Biological Sciences (5)
 - BIOL 1303 Foundations of Biological Sciences (5)
 - BIOL 2010 Human Physiology and Anatomy I (5)
 - BIOL 2020 Human Physiology and Anatomy II (5)
 - CHEM 1101, 1102, 1103 General Chemistry (15)
 - PHYS 2701 Force, Mass and Motion (4)
 - PHYS 2702 Heat, Sound, Electricity and Magnetism (4)
 - PHYS 2703 Light, and Modern Physics (4)
 - P E 2600 Introduction to Athletic Training (4)
2. Upper Division (13 units)
 - P E 3600 Care and Prevention of Athletic Injuries (5)
 - P E 4030/4031 Professional Field Experience (4)
 - PSYC 4410 Abnormal Psychology (4)
3. Elective (4-5 Units)
 - BIOL 3005 Introduction to Microbiology (5)
 - BIOL 4160 Medical Physiology (4)
 - CHEM 2301 Survey of Organic Chemistry (4)
 - P E 4340 Motor Development (4)
 - PSYC 4420 Developmental Psychology (4)
 - STAT 1000 Elements of Probability and Statistics (5)
 - STAT 1100 Elements of Descriptive and Inferential Statistics (4)
 - STAT 3031 Statistical Methods in Biology (4)

E. Physical Education Teaching Option (48 units)

This option is designed to prepare students for teaching physical education in grades K-12 in public and private schools. The curriculum is designed to meet Standard Requirements set forth by the California Commission on Teacher Credentialing (approval is pending). The major with this option totals 91-95 units.

1. Lower Division Requirements (5 units)
 - BIOL 2010 Human Physiology and Anatomy I (5)

2. Upper Division Requirements (43 units)

Theory-Analysis-Practice Courses (15 units)

- DANC 3241 The Dance Experience (3)
- P E 3072 Individual and Dual Sports (3)
- P E 3075 Aquatic and Outdoor Education (3)
- P E 3079 Combatives and Fitness Activities (3)
- P E 3080 Team Sports and Field Sports (3)

Foundation Courses (12 units)

- P E 4008 Physical Education for Exceptional Individuals (4)
- P E 4340 Motor Development (4)
- P E 4650 First Aid and Safety (4)

Pedagogical Courses (12 units)

- EDUI 5090 Computer Application in Educational Settings (4)
- P E 4004 Elementary School Physical Education (4)
- P E 4006 Secondary School Physical Education (4)

3. Field Experience (4 units)

- P E 4031 Professional Field Experience (2, 2)
(Must be taken concurrently with P E 4004 and 4006)

F. Special Studies Option (29 units minimum)

The Special Studies Option allows students to pursue special educational interests not met by any of the other undergraduate options through an individualized curriculum. The major with this option totals 72-76 units.

1. Lower Division (5 units)

- BIOL 2010 Human Physiology and Anatomy I (5)

2. Upper Division (20 units minimum)

Students may design an individualized option consisting of a minimum of 20 units. Three courses must be taken from those listed for the Exercise Nutrition and Wellness Option, the Athletic Training Option, the Exercise Physiology Option, and/or the Profession Physical Education Option. All Special Studies Option programs must receive approval from the department chair before coursework is initiated.

3. Field Experience (4 units)

- P E 4030 Professional Field Experience (1-4) and/or P E 4031 Professional Field Experience (1-4)

IV. Performance Requirements (6-10 units)

The skill proficiency requirement for all major students in Kinesiology, regardless of option, involves satisfactory completion of one (1) activity course in each of five categories: Swimming, Combatives, Team Sports, Individual or Dual Sports, and Fitness Activities. Therefore, the student must have completed a minimum of five different activities. At least one intermediate and one advanced-level activity course must be included. Courses satisfying the skill proficiency requirement must be taken in residence or as an upper division student.

Students possessing demonstrable skill and knowledge of sport may obtain credit in that activity by successfully challenging the appropriate course. In special circumstances, students may petition the department chair for a waiver. Students may not challenge Fitness Activities.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth Requirements; the U.S. History, U.S. Constitution, and California State and Local Government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor in Kinesiology consists of 32-33 units.

I. Core (minimum: 13 units)

P E 3300 Kinesiological Measurement (5)

P E 3305 Structural Kinesiology (5)

P E 4030 Professional Field Experience I or P E 4031 Professional Field Experience II (1-4)(3)

II. Core Electives (9 units)

Complete one of the following:

P E 3310 Biomechanics (5)

P E 3320 Exercise Physiology (5)

P E 3330 Sensorimotor Skill (5)

Complete one of the following:

P E 3700 History of Sport and Physical Education (4)

P E 3740 Philosophical Foundations of Sport and Physical Education (4)

P E 3750 Sport in Contemporary Society (4)

III. General Electives (7-8 units)

Select two courses from Category "A" or one from Category "A" and one from Category "B":

Category "A"

P E 1625 Nutrition and Performance (4)

P E 2600 Introduction to Athletic Training (4)

P E 3600 Care and Prevention of Athletic Injuries (4)

P E 4330 Clinical Exercise Physiology (4)

P E 4340 Motor Development (4)

P E 4605 Special Populations: Psychomotor Disabilities and Implications (4)

P E 4610 Exercise Prescription (4)

P E 4710 Psycho-Social Factors of Sport and Physical Education (4)

P E 5210 Elementary School Physical Education (4)

Category "B"

Select one of the following if you did not select two courses from Category "A": P E 3000, 3002, 3004, 3005, 3006, 3009, 3017, 3024, 3068

IV. Performance Requirements (3 units)

Complete at least one proficiency in at least three of the designated categories: swimming, team sports, individual or dual sports, combatives, or fitness activities.

KINESIOLOGY OPTION: LIBERAL STUDIES

Area VII Credential Track or Area VI Liberal Arts Track (25 units)

P E 1007 Beginning Swimming (1)
P E 3300 Kinesiological Measurement (5)
P E 3305 Structural Kinesiology (5)

One of the following (5 units):

P E 3310 Biomechanics (5)
P E 3320 Exercise Physiology (5)
P E 3330 Sensorimotor Skill (5)

One of the following (4 units):

P E 2600 Introduction to Athletic Training (4)
P E 3700 History of Sport and Physical Education (4)
P E 3740 Philosophical Foundations of Sport and Physical Education (4)
P E 3750 Sport in Contemporary Society (4)
P E 4340 Motor Development (4)
P E 4605 Special Populations: Psychomotor Disabilities and Implications (4)
P E 4650 First Aid and Safety (4)

Other 1000-level Beginning Activities (1 each) (3 units)
2000-level Intermediate Activities (1 each) (2 units)

CERTIFICATE PROGRAMS

Coaching Certificate

The certificate program in Coaching is designed for persons with majors in other fields who are in-service teachers or who plan to enter the teaching profession (e.g., Liberal Studies majors who plan to pursue a Multiple Subject Credential). The program is designed to enhance student understanding of a particular sport and prepare the student to assume coaching responsibilities in the public or private sectors. A minimum GPA of 2.00 is required in the following courses (21-24 units):

1. P E 2600, 3250, 4650 (12 units)
2. Theory of a particular sport
One course from the P E 3000-24 series (3)
3. Advanced Activity in the same sport
One course from the P E 3500-54 series (2)
4. P E 5000 Sports Officiating
Must cover same sport as 2) and 3) above (3)
5. P E 4031 Professional Field Experience (1-4 units)

Commercial Physical Education Certificate

The certificate program in Commercial Physical Education is designed to improve employment opportunities of Physical Education majors. Current economic and social conditions have altered vocational goals of many students. Opportunities for career development in the private sector have increased dramatically in the past decade. This program provides students with the necessary background for employment in various commercial

enterprises.

Required Coursework (24-32 units)

ACCT 2210 Accounting for Non-Business Majors (4) or
ACCT 2251, 2252 Principles of Accounting I, II (8)
MGMT 2701 Legal Environment of Business (4)
MGMT 3600 Theories of Management (4)
MKTG 2485 Establishing and Managing a Small Business (4)
P E 4031 Professional Field Experience II (4-8)
REC/P E 4800 Commercial Leisure Services (4)

Pre-Physical Therapy Certificate

See description of this program in the [Pre-Professional Programs section](#) of this catalog.

Special (Adapted) Physical Education Certificate

Check with the department about the status of this program.

EPSY 6500 (4) or 6501 (3)

Complete all of the following (13 units): P E 4605 (4), 5600 (5), and 5610 (4)

One of the following (4 units): DANC 3235 (4), P E 4340 (4) or P E 5210 (4)

SINGLE SUBJECT MATTER PREPARATION PROGRAM

A Single Subject Matter Preparation Program in Physical Education has been developed to meet the standard of the California Commission on Teacher Credentialing (approval pending).

UNDERGRADUATE COURSES

Lower Division Courses

1000-1051* Beginning Activities (1 each)

Two hrs. activity.

- | | |
|--------------------------------|--------------------------------|
| 00 Badminton | 22 Gymnastics |
| 01 Basketball | 24 Tennis |
| 06 Softball | 28 Jogging |
| 07 Swimming | 34 Yoga |
| 09 Volleyball | 41 Aerobic Condition |
| 10 Weight Training | 42 Ski Conditioning |
| 13 Judo | 46 Aqua-Fitness (CR/NC) |
| 15 Hapkido Self Defense | 47 Indoor Soccer |
| 16 Taekwondo Karate | 49 Aerobic Walking |
| 17 Soccer | 50 Stretch Fitness |
| 18 Self Defense--Women | 51 Aqua Aerobics |
| 21 Golf | |

1110 Concepts of Health (4)

Analysis of the basic concepts and principles of individual health. Investigation and evaluation of contemporary health problems and information. (W)

1600 Physical Activity for Special Students (1)

Individual and small group instruction for special students in a variety of physical education activities. Grading limited to CR/NC. May be repeated for credit. Prerequisite: consent of instructor. Two hrs. act. (F, W, Sp)

1620 Exercise, Nutrition and Weight Control (4)

Survey of current knowledge relating exercise and nutrition to weight control. Commercial practices and consumer protection. Development of individualized diets and activity programs. Three hrs. lect., 2 hrs. act. (W, Sp)

1625 Nutrition and Performance (4)

The interrelationship of nutrition and exercise capability. The effect on athletic performance of diet and food additives. (F, W, Sp)

1650 Cardio-Pulmonary Resuscitation/Basic Life Support (1)

Instruction in techniques and procedures for three areas of basic life support--artificial respiration, external cardiac massage, and airway obstruction. American Red Cross CPR certificate awarded. Must be taken credit/no credit. May be repeated once per year. Two hrs. act. (F,W,Sp)

2000-2047* Intermediate Activities (1 each)

Two hrs. act.

00 Badminton	16 Taekwondo
01 Basketball	17 Soccer
06 Softball	21 Golf
07 Swimming	24 Tennis
09 Volleyball	41 Aerobic Conditioning
10 Weight Training	47 Indoor Soccer

2600 Introduction to Athletic Training (4)

Beginning course in the recognition, management, reconditioning, and prevention of injuries occurring in physical activity. Recommended preparation: BIOL 2010 or equivalent. (F, Sp)

Upper Division Courses**3000-68 Theory of Sport (3 each)**

Instruction at the advanced theory level in designated areas of sport, including analysis of skill, game strategy, and specific techniques of coaching. Organization of the sport, training, and conditioning. Prerequisite: Experience specific to each section.

- 00** Football (F)
- 02** Basketball (Sp)
- 04** Baseball (F)
- 05** Softball (Two hrs. lect., 2 hrs. act.) (Tent. W)
- 06** Track and Field (Two hrs lect., 2 hrs. act.) (W)
- 09** Aquatics (F)
- 17** Soccer (Two hrs. lect., 2 hrs. act.) (Sp)
- 24** Tennis (Two hrs. lect., 2 hrs. act.) (Tent. F)
- 68** Volleyball (Two hrs. lect., 2 hrs. act.)(Sp)

3072 Individual and Dual Sports (3)

Theory, analysis, and practice of the skills, techniques, and knowledge necessary for the teaching of individual and dual sports. Participation required. Prerequisites: one college-level course in individual sports and one in dual sports, or consent of the instructor. Two hrs. lect., 2 hrs. act. (A)

3075 Aquatics and Outdoor Education (3)

Theory, analysis, and practice of the skills, techniques, and knowledge necessary for the teaching of aquatics and outdoor education. Participation required. Prerequisites: one college-level course in aquatics and one in an outdoor education activity, or consent of the instructor. Two hrs. lect., 2 hrs. act. (A)

3079 Combatives and Fitness Activities (3)

Theory, analysis, and practice of the skills, techniques, and knowledge necessary for the teaching of combatives and fitness activities. Participation required. Prerequisites: one college-level course in combative skills and one in fitness activities, or consent of the instructor. Two hrs. lect., 2 hrs. act. (A)

3080 Team Sports and Field Sports (3)

Theory, analysis, and practice of the skills, techniques and knowledge necessary for the teaching of team sports and field sports. Participation required. Prerequisites: one college-level course in team sports and one in field sports, or consent of the instructor. Two hrs. lect., 2 hrs. act. (A)

3250 Kinesiological Foundations of Physical Education (4)

Kinesiological concepts of physical performance and physical education. Anaerobic and aerobic activities; health concepts in relation to cardiovascular and other diseases; exercise and diet; principles of motor learning and development; and psychosocial dynamics of activity. Not for P E major credit. (F, W, Sp)

3300 Kinesiological Measurement (5)

Theory and application of measurement and assessment procedures related to sport and exercise phenomena. STAT 1000 or 1100 highly recommended. Four hrs. lect., 3 hrs. lab. (F, W, Sp)

3305 Structural Kinesiology (5)

Anatomical structures as functional determinants of movement. Skeletal, muscular, and nervous systems and their roles in determining movement efficiency. Kinesiological application of anatomical information.

Prerequisite: BIOL 2010. Recommended preparation: BIOL 1000 and CHEM 1100 or equivalents. Four hrs. lect./disc., 3 hrs. lab. (F, W, Sp)

3310 Biomechanics (5)

Biomechanics of human movement and the mechanical and muscular analysis of movement patterns.

Prerequisites: P E 3300, P E 3305. Four hrs. lect., 3 hrs. lab. (F, W, Sp)

3320 Exercise Physiology (5)

The physiological parameters and mechanisms that determine adaptations of the physiological systems of human beings in response to exercise. Prerequisites: BIOL 2010, P E 3300, 3305. Four hrs. lect., 3 hrs. lab. (F, W, Sp)

3330 Sensorimotor Skill (5)

The nature of sensory-motor skills. Analysis of the motor systems and mechanisms of basic sensory-motor integration. An overview of skill acquisition. Prerequisites: BIOL 2010, P E 3300, P E 3305. Four hrs. lect., 3 hrs. lab. (F, Sp)

3500-54 Advanced Activities (2 each)

Instruction at advanced level for persons with intermediate level skill. Each course may be repeated only once for credit. Four hrs. act.

00 Badminton (Sp)

21** Golf (Tent. Sp)

01 Basketball (F, Sp)

24 Tennis

02 Basketball Tactics (F, Sp)	25 Water Polo (F)
05 Fastpitch Softball (F)	41 Aerobic Conditioning
06 Softball (Tent. Sp)	47 Indoor Soccer (W)
07 Aquatics (Sp)	50 Football (W, Sp)
09 Volleyball (F, Sp)	51 Football Tactics (F)
10 Weight Training	52 Track and Field (W)
16 Taekwondo	53 Baseball (F)
17 Soccer (Sp)	54 Baseball Tactics (F)

3600 Care and Prevention of Athletic Injuries (5)

Application of kinesiology in the recognition, management, reconditioning, and prevention of athletic injuries. Prerequisites: BIOL 2010 or equivalent, P E 2600, and 3305. Four hrs. lect., 3 hrs. lab. (W)

3601 Athletic Training: Modalities and Rehabilitation (4)

Theory and application of therapeutic modalities; design of sports related injury rehabilitation programs. Prerequisite: P E 2600 and 3600 (Sp)

3700 History of Sport and Physical Education (4)

The role of sport and physical education in ancient and medieval societies and their subsequent development. Historical development of athletics and physical education in North America. Prerequisite: junior standing. (F, W)

3740 Philosophical Foundations of Sport and Physical Education (4)

Philosophical movements and leaders in sport and physical education. Philosophical concepts such as axiology, ontology, and epistemology with emphasis on ethics and esthetics. (W, Sp)

3750 Sport in Contemporary Society (4)

Analysis of sport and physical activity as socio-cultural phenomena. Emphasis on social structures and processes related to sport, including values, education, roles of minorities and women. Impact of economics, politics and religion. Recommended preparation: SOC 1000. (F, Sp)

4004 Elementary School Physical Education (4)

Planning, development, implementation and evaluation of physical education programs in culturally diverse settings in grades K-5. Emphasis on games, sports, fundamental rhythms, and dance movements as delineated for instruction by the California State Physical Education Framework. (W)

4005 Exercise Nutrition and Metabolism (4)

Kinesiological discussion of nutrients and ergogenic aids and their interaction within metabolic pathways. Emphasis upon the role of nutrients in bioenergetics and how manipulation of nutrient intake alters energy production during exercise. Prerequisites: CHEM 1103 or 1603, P E 3320. (W)

4006 Secondary School Physical Education (4)

Planning, development, implementation and evaluation of physical education programs in culturally diverse setting in grades 6-12 as delineated by the California State Physical Education Framework. Emphasis on games, sports, dance, fitness activities and outdoor education as delineated for instruction by the California State Physical Education Framework. (Sp)

4008 Physical Education for Exceptional Individuals (4)

Neurophysiological and functional aspects of psychomotor disabilities. Planning, teaching and evaluating modified physical education activities to meet the needs of exceptional students found in general physical education classes. Participation in laboratory setting required. Prerequisite: P E 4340. (F)

4010 Contemporary Perspectives in Exercise Nutrition (4)

Study and application of current issues in exercise nutrition. Emphases on health and fitness program design and lifestyle management. Prerequisites: P E 1625, 2600, 4005, 4610. (Sp)

4030 Professional Field Experience I (1-4)

Instruction in and practice of professional technique and methodology through supervised field work. Prerequisites: completion of skill requirements for the major or minor. (A)

4031 Professional Field Experience II (1-4)

Instruction in and practice of professional competencies under supervision. CR/NC grading only. May be taken up to three times for credit. (A)

4050-4083 Intercollegiate Sports (1 each)

May be repeated according to season. Three hrs. perf.

51 Basketball (men) (F, W) **68** Volleyball (women) (F)

53 Baseball (men) (W, Sp) **69** Soccer (men) (F)

54 Cross-country (women) **74** Softball (women) (W, Sp)

62 Basketball (women) (F, W) **77** Swimming (women)

64 Cross-country (men) **83** Soccer (women) (F)

4320 Environmental Exercise Physiology (4)

Human physiological response and adaptation during exercise under stressful environments. Prerequisite: P E 3320 or equivalent. (A)

4325 Neuromuscular Function in Performance (4)

Advanced study of the nature of muscle physiology and voluntary motor-sensory systems as they affect the acquisition of skill. Emphasis on the adaptations of the muscular and nervous systems centrally and peripherally affecting voluntary gross motor movements in humans. Prerequisite: P E 3320, 3330, or equivalents. (A)

4330 Clinical Exercise Physiology (4)

Study and practice of techniques for administering and evaluating the results of graded exercise stress tests. Analysis of normal and abnormal cardiopulmonary response to exercise. Emphasis on exercise electrocardiography. Prerequisite: P E 3320 or equivalent. (Sp)

4335 Exercise, Cardiopulmonary and Metabolic Disease (4)

The role of exercise in the detection, prognosis and management of cardiovascular, pulmonary and metabolic disease. Prerequisite: P E 4330 or equivalent. (A)

4340 Motor Development (4)

Physical growth, body build and motor development through childhood, adolescence and the adult stage. Age and sex differences in typical motor performances. Prerequisite: BIOL 2010 or equivalent. (W)

4390 Senior Seminar (4)

Seminar on special topics selected from current kinesiological research literature. May be taken twice for credit with different content. Prerequisites: Senior standing or consent of instructor. (Tent. W)

4600 Athletic Training Practicum (2)

Supervised clinical experience in techniques of athletic training. Open only to students in departmental option in athletic training/clinical exercise. Prerequisite: P E 2600 or concurrent. May be taken up to three times for credit. (F,W,Sp)

4605 Special Populations: Psychomotor Disabilities and Implications (4)

Neurophysiological and functional aspects of psychomotor disabilities. Identification etiology. Prerequisites: P E 3305 or consent of instructor. Cross-listed with [Recreation 4605](#). (F)

4610 Exercise Prescription (4)

Application of kinesiological principles to methods of physical conditioning. Systems of progressive resistance exercise, physical fitness and training. Exercise programs for special conditions and effects. Prerequisite: P E 3320. Three hrs. lect., 3 hrs. lab. (Sp)

4615 Exercise and Stress (4)

The nature of stress and its relationship to exercise. The physiology of the stress response, its role in disease, and immediate and long term interactions of exercise and stress. Prerequisite: P E 3330. PSYC 1000 highly recommended. (F)

4650 First Aid and Safety (4)

Principles and procedures of first aid to maintain life in emergency situations. Meets qualifications for Red Cross and cardiopulmonary resuscitation certification. Three hrs. lect., 2 hrs. act. (F,W,Sp)

4710 Psycho-Social Factors of Sport and Physical Education (4)

Analysis and application of psychological and sociological data related to participation in sport and physical education programs. Special emphasis on participant characteristics and behavioral outcomes within the social context of these programs. The nature of competition, motivation and aggression. Prerequisite: P E 3330. (Sp)

4800 Commercial Leisure Services (4)

(See [REC 4800](#) for course description.)

4900 Independent Study (1-4)

* Each course may be repeated only once.

** A facilities fee is required to participate in this course. Consult the quarterly *Class Schedule* for the current fee.

Latin American Studies

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- [MAJOR REQUIREMENTS ■ B.A.](#)
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LATIN AMERICAN STUDIES

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Loretta Breuning, H. Glynn Custred, Roxanne Dunbar-Ortiz, Herbert M. Eder (Director), Richard A. Garcia, Sherman Lewis, George R. Miller, Noel Samaroo, Donald O. Warrin, William D. Whisler

Associate Professors:

Iliana Holbrook, Amy Rodman

Director:

Pablo Arreola

PROGRAM DESCRIPTION

Latin America, with its rich Indigenous, African, and Iberian heritage, is a unique and extraordinarily varied region of the world about which North Americans are often very poorly informed. Yet the relationship between Latin America and the U.S. is necessarily a close one: we are bound together by history, by geography, by long-standing financial and commercial relationships, by the often-disappointed expectation on the part of the U.S. that Latin America is our natural political and military ally, and finally, by the growing number of men and women of Latin American origin and culture living in the U.S.

The Latin American Studies major draws on courses taught in the Departments of Anthropology, Art, Ethnic Studies, Geography and Environmental Studies, History, and Modern Languages and Literatures, as well as courses taught from time to time in other departments. It provides the student with an opportunity to acquire a broad and deep understanding of the richness of Latin American and Iberian civilizations. The major in Latin American Studies is a liberal arts program which is of particular interest to students planning to enter careers related to the Latin American region (teaching, business, government, or other agency service, for example.)

A minor, double major, or Liberal Studies option in Latin American Studies is appropriate for students who wish to enrich their career prospects by establishing expertise not only in their major fields and in Spanish or Portuguese, but also in Latin American culture and history. It is also desirable for students with majors in the liberal arts disciplines represented in the Latin American Studies major for whom a regional specialization adds another dimension to the

mastery of the themes and methodologies of their major fields.

FEATURES

A unique feature of the program is the possibility of concentrating on Spanish or Portuguese speaking areas of Latin American and the Iberian Peninsula.

Cal State Hayward has established study abroad and exchange programs with the Universidade do Sao Paulo (Brazil) and the Universidad Ibero-Americana (Mexico). Credit can be arranged for numerous other summer and academic-year programs. Majors are encouraged to spend at least one quarter studying in Latin America.

Majors may also do research on Latin America as an intern at one of the many agencies of the Bay Area which need volunteers and the occasional paid employee. Interns will help evaluate proposals for grants-in-aid submitted by Latin American communities to work with recent Latin American migrants. The Program Director maintains a file on study abroad and internship opportunities.

LAS students are expected to develop a close relationship with their advisor because of the importance placed on "extra-campus" activities and the special needs of coordination required in an interdisciplinary major. This relationship can be one of the strongest features recommending the program.

SCHOLARSHIP

Helen C. Jacobsen Scholarship

One \$1,000 scholarship awarded for full-time undergraduate students. Awards are limited to students with upper division standing. A grade point average of 3.0 or higher is required.

MAJOR REQUIREMENTS - B.A.

The major treats the Latin American sequence in the History Department, which is offered each year, as its core curriculum. This sequence, along with language proficiency in either Spanish or Portuguese, and an independent study project (usually a research paper or an internship) in the student's senior year, are the only required courses/skills for the major. The major is completed by choosing nine courses in at least three disciplines, besides history, from a wide variety of electives. It is extremely helpful if entering students begin coursework for the major with the language skills requirements behind them. Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 52-76 units; the B.A. degree requires a total of 186 units.

- I. Complete the third quarter of intermediate (2000 level) Spanish or Portuguese or pass an examination offered by the Department of Modern Languages and Literatures measuring proficiency at that level. (0-24 units)
- II. Complete 52 units according to the following pattern:
 - A. *Required Courses* (16 units)
 - HIST 3600 Latin America to 1700 (4)
 - HIST 3601 Latin America 1700-1900 (4)
 - HIST 3602 Twentieth-Century Latin America (4)
 - ANTH/ART/E S/MLL/GEOG/HIST 4900 Independent Study project (4)

B. *Electives*: Nine courses (36 units) from the following lists. At least three disciplines besides history must be represented.

ANTH 3250 Pre-Columbian America: Aztec, Inca, Maya (4), 3510 South America (4); ART 2060 Pre-Columbian Art (4), 3010 Latin American Art (4); E S 1200 Introduction to Chicano/Latino Studies (4), 2100 Blacks in the Americas (4), 2410 Chicano/Latino Perspectives in Film (4), 3130 Slavery in the Americas (4), 3800 Peoples of Central America (4), 3805 Mexican and Latin American Immigration (4)

MLL 3461 Introduction to Spanish-American Literature: 1492 to 1900 (4), 3463 Introduction to Spanish-American Literature: From 1900 to the Present (4), 3495 Spanish-American Culture and Civilization (4), 3861 Topics in Portuguese Literature (4), 3871 Topics in Brazilian Literature (4), 4495 A Single Movement or Theme: Spanish-American Literature (4); GEOG 3510 Geography of Mexico, Central America, and the Caribbean Islands (4), 3515 Geography of South America (4)

HIST 3138 Imperial Spain (4), 3555 Inter-American Relations (4), 3615 Social Revolution in Latin America (4), 3622 Mexico since 1810 (4), 3631 The ABC Nations of South America (4), 3632 Film and Society in Latin America (4), 4800 series, Special Problems in History (Latin American topic) (4), 6500 Conference Course in Latin American History (open to undergraduate majors and minors in LAS) (4); POSC 3280 Political Systems of Latin America (4)

Any other course certified by an advisor to have suitable content for the program.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 24 units; at least 18 must be outside major department. Students must complete 12 units of college-level Spanish or Portuguese, or the equivalent to be determined by examination. (0-12 units)

I. *Required Courses* (8 units)

HIST 3602 Twentieth Century Latin America (4), and
Either HIST 3600 Colonial Latin America to 1700 (4),
or HIST 3601 Latin America 1700 to 1900 (4)

II. *Students must complete four additional courses* (16 units) from the following lists. At least two disciplines besides history must be represented.

ANTH 3250 Pre-Columbian America: Aztec, Inca, Maya (4), 3510 South America (4); ART 2060 Pre-Columbian Art (4), 3010 Latin American Art (4); E S 1200 Introduction to Chicano/Latino Studies (4), 2100 Blacks in the Americas (4), 2410 Chicano/Latino Perspectives in Film (4), 3130 Slavery in the Americas (4), 3800 Peoples of Central America (4), 3805 Mexican and Latin American Immigration (4); MLL 3461 Introduction to Spanish-American Immigration: 1492-1900 (4), 3463 Introduction to Spanish-American Literature: 1900 to the Present (4), 3495 Spanish-American Culture & Civilization (4), 3861 Topics in Portuguese Literature (4), 3871 Topics in Brazilian Literature (4), 4495 A Single Movement or Theme: Spanish-American Literature (4)

GEOG 3510 Geography of Mexico, Central America, and the Caribbean Islands (4), 3515 Geography of South

America (4); HIST 3138 Imperial Spain (4), 3555 Inter-American Relations (4), 3615 Social Revolution in Latin America (4), 3622 Mexico since 1810 (4), 3631 The ABC Nations of South America (4), 3632 Film and Society in Latin America (4), 4800 series, Special Problems in History (Latin American topic) (4), 6500 Conference Course in Latin American History (open to undergraduate majors and minors in LAS) (4); POSC 3280 Political Systems of Latin America (4)

Any course certified by an advisor to have suitable content for the program.

LATIN AMERICAN STUDIES OPTION: LIBERAL STUDIES

Area II. B (4 units)

Third quarter of first year college-level Spanish or Portuguese

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

HIST 3600 Latin America: Colonial Period (4)

HIST 3601 Latin America: Since 1825 (4)

Four upper division courses selected from the following (16 units):

ANTH 3250 Pre Columbian America: Aztec, Inca, Maya (4), 3510 South America (4); E S 3800 Peoples of Central America (4), 3805 Mexican and Latin American Immigration (4); MLL 3461 Introduction to Spanish-American Literature: 1492 to 1900 (4), 3463 Introduction to Spanish-American Literature: from 1900 to the Present (4), 3495 Spanish-American Culture and Civilization (4), 4495 A Single Movement, Country or Theme: Spanish-American Literature (4); GEOG 3510 Geography of Mexico, Central America, and the Caribbean Islands (4), 3515 Geography of South America (4); HIST 3615 Social Revolution in Latin America (4), 3622 Mexico Since 1810 (4), 3631 The ABC Nations of South America (4); POSC 3280 Political Systems of Latin America (4)

Liberal Studies

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- [REQUIRED COURSE LIST \(RCL\)](#)

LIBERAL STUDIES

Liberal Studies Program

School of Arts, Letters, and Social Sciences

Office: Meiklejohn Hall 4055

Phone: (510) 885-3852, FAX: (510) 885-2122

Professors:

Lynne O. Elkin, Tom G. Hall (Advising Coordinator), James L. Nichols (Director), Richard J. Orsi

PROGRAM DESCRIPTION

The Liberal Studies Major aims to provide a rich educational experience through coursework in a broad range of academic disciplines. There are two tracks to the B.A. degree major in Liberal Studies. The Credential Track is designed for future elementary (K-8) teachers. The Liberal Arts Track is intended for those with other goals who desire a broad exposure to the arts, humanities, sciences, and social science fields that comprise a true liberal education. Differences between the two tracks are small, so that it is easy to change from one to the other. In either track, the student is guaranteed a breadth of academic experience, as well as depth in a single field.

The broad-based, interdisciplinary nature of Liberal Studies provides a knowledge base and communication and analytical skills appropriate to many careers and occupations. Hence, the Liberal Studies major is excellent preparation not only for teaching, but for graduate work, for law school, and for employment in business and government.

CAREER OPPORTUNITIES

Administrator ■ Business Executive ■ Civil Servant ■ Customer Service Representative ■ Foreign Service Officer ■ Human Resources Administrator ■ Journalist ■ Law ■ Manager ■ Personnel Representative ■ Salesperson ■ Stockbroker ■ Teacher (K-8) ■ Travel Agent ■ Writer

FEATURES

Although the program is large and complex, remember that it incorporates all General Education requirements. All university graduation requirements can be completed within the structure of the Liberal Studies major.

The Credential Track is an approved Multiple Subject Matter Preparation Program. This means a student who completes it is exempt from the Multiple Subject Assessment for Teachers exam (formerly the National Teacher's Examination, or NTE) as an entrance requirement to a post-baccalaureate Multiple Subject Credential Program in Teacher Education.

The primary function of the Liberal Studies Office is to provide proper advising. Friendly, experienced office staff and faculty and staff advisors are available to help at every step. Advising is available through individual appointments and on a "drop-in" basis.

The Liberal Studies major is offered both day and evening, and on both the main Hayward campus and at the Contra Costa Campus. However, Contra Costa and evening-only students will not find a full range of courses and options available to them.

Liberal Studies is also one of the majors available through the Cal State Hayward Program for Adult College Education (PACE). For information, call the PACE office at (510) 885-2989. Also, see information about PACE in the [Welcome to Cal State Hayward chapter](#) and in the [Student Services chapter](#) in the front of this catalog.

Credential Track students are subject to special requirements for field experience in the schools and for summative assessment, which includes a portfolio of student work. Further information on these requirements is available from the Liberal Studies Office.

PREPARATION

For transfer students, the best preparation for Liberal Studies is General Education coursework that can be counted in Area I, Foundations. Liberal Studies welcomes inquiries from community college counselors, and potential transfer students may call for informal, pre-admission advising.

MAJOR REQUIREMENTS - B.A.

The Credential Track consists of 162-178 units; the Liberal Arts Track consists of 151-163 units; the B.A. degree requires a total of 186 units. General Education-Breadth Requirements are subsumed in the Liberal Studies major. The U.S. history, U.S. Constitution, and the state and local government requirement can be satisfied by completion of the Liberal Studies major. Students must be certain to select courses satisfying this requirement which also meet major requirements or they will take extra courses. In addition, every student must satisfy the University Writing Skills requirement and the residence, upper division, and grade point average requirements. For details, see the [Baccalaureate Degree Requirements chapter](#) in the front of this Catalog. Only one course may be taken CR/NC in each of Areas I - VI and no course may be taken CR/NC in Area VII.

Area I: Foundations (48-50 units)

- A. ENGL 1001 (4)
- B. SPCH 1000 (4)
 - Liberal Arts Track may take SPCH 1004

- C. Critical Thinking: a course selected from the *Class Schedule* under G.E. Area A.3 of the G.E. requirements (4)
- D. One Math or Statistics course (4-5) from the *Class Schedule* under G.E. Area B.4.
- E. One Art, Music, or Theatre course (4)
- F. Humanities (4): a course from the *Class Schedule* under G.E. Area C.2. May include a History course for U.S. history, U.S. Constitution and state and local government requirement.
- G. One course in the Arts or Humanities (4)
- H. Social Science course (4)
- I. Social Science course (4)
- J. Social Science course (4)
- Note: At least two disciplines listed in the Class Schedule under G.E. Areas D.1-3 must be included in the 12 units of Social Science listed above. May include a Political Science course used for U.S. history, U.S. Constitution and state and local government requirement.*
- K. One Biological Science course from the *Class Schedule* under G.E. Area B.2. (4)
- L. One Physical Science course (astronomy, chemistry, geology, oceanography or physics) from the *Class Schedule* under Area B.1. (4)
- M. Lab for one of the courses listed in (K) or (L) from the *Class Schedule* under Area B.3. (1-2)

Area II: Language and Communication (20 units)

- A. ENGL 1002 (4)
- B. ENGL 2030 or 2040 or 2050 or 2070 or 3003 or 3020 (4);
- C. ENGL 3010 (4) for Credential Track students
 - **Liberal Arts Track** students may select from ENGL 3005, 3010, 3015, or 3040 (4)
- D. Upper division English literature (4)
- E. Language Acquisition: either a third quarter foreign language course or a course selected from the Required Course List (RCL) (See "Liberal Studies Required Course List" at the end of this section) (4)
 - Liberal Arts Track students may also select any upper division English or Speech Course.

Area III: Science and Environment (24-27 units)

- A. Biology course (4)
Lab (0-1)
- B. Physical Science course (4)
Lab (0-2)
 - **Credential Track:** two courses in science to include a course in biology and a course in physical science selected from the RCL (8-11). Two labs are required. (Courses in Areas I and III must include three labs.)
 - **Liberal Arts Track:** one course in either biological or physical science. One lab is required. (Courses in Areas I and III must include two labs.)
- C. Environmental Perspectives: one course from the RCL (4)
- D. Mathematics
 - Credential Track requires MATH 4021, 4022, and 4023.
 - Liberal Arts Track students can select any two Math, Statistics, or Computer Science courses numbered 1000 and above.

Area IV: Individual Development (7-12 units)

(Not required for Liberal Arts Track)

- A. One course in Physical Development: P E 1625, 3250, or DANC 3235 (4)
- B. Social Development: an upper division course from the RCL (3-4)
- C. Field Experience: T ED 3001 or documented experience in an elementary (K-8) classroom (0-4)

Area V: The Arts (12-14 units)

- A. History, Theory, Appreciation: two courses from different departments selected from the RCL (8-9)
- B. Arts Activities: course(s) selected from the RCL (4-5)
(Courses taken for Areas I and V must include an Art and a Music course.)
 - Liberal Arts Track Only: One additional course selected from the two categories above (4)

Area VI: The Social World (28 units); no more than 4 courses in any one department

- A. History
 - **Credential Track** students must take an upper division U.S. History course. (4)
 - **Liberal Arts Track** students may use any upper division History course.
- B. Western Heritage: a course from the RCL (4)
- C. African, Asian, & Western Hemisphere Civilizations: one upper division course from the RCL (4)
- D. Ethnic Experience in America: one upper division course from the RCL (4)
- E. Women in Society: one upper division course from the RCL (4)
- F. Ethics and Social Policy: one upper division course from the RCL (4)
- G. Geography: one upper division course from the RCL (4)
 - Liberal Arts Track may take one upper division course from any of the following social science disciplines: Anthropology, Economics, Geography, Human Development, History, Political Science, Psychology, or Sociology

Area VII: The Option (23-27 units)

The Liberal Studies major requires that each student complete an option, an area of study in some depth. An option involves coursework totaling 23-27 units, similar to a minor. Liberal Studies majors may substitute any regular minor offered by the university in place of the option. However, for those on the Credential Track the choice should be made carefully, in consultation with an advisor, to be sure that it is appropriate for future work as a teacher. An option or a minor must include at least 23 units not counted in any other Area of the major; the same is true for additional options or minors. No course taken CR/NC may be used in the option. The following Liberal Studies options are available through the program:

African American Studies, American Studies, Anthropology, Art, Bilingual/Cross Cultural Studies, Business Studies,* Dance, Early Childhood Studies, Economics, English, Environmental Studies, Ethnic Studies, Geography, History, Human Development, Kinesiology, Language Studies, Latin American Studies, Life Sciences, Mass Communication, Mathematics, Modern Languages, Music, Philosophy, Physical Education, Physical Sciences, Political Science, Sign Language, Sociology, Special Education, Speech Communication, Speech Pathology & Audiology, Statistics, Theatre, Women's Studies

Summative Assessment

Liberal Studies majors beginning the Multiple Subject Preparation Program Fall 1991 and later must meet requirements set by the California Commission on Teacher Credentialing (CTC) which include a "summative assessment" of subject matter competence. This applies only to students pursuing the Credential Track, beginning Fall quarter 1991 and later. *It does not apply to students on the Liberal Arts Track.*

Summative assessment means an overall evaluation of academic achievement, separate from and in addition to grades received in individual courses. It will be done by the Liberal Studies faculty on completion of all major requirements and when the student requests certification of completion of the Multiple Subject Preparation Program.

The main elements taken into account in summative assessment are:

1. **Basic Skills Proficiency**, demonstrated by passing scores on the following:
 - a. University Writing Skills Test (WST), a graduation requirement for all Cal State Hayward students;
 - b. California Basic Education Skills Test (CBEST), a requirement for admission to a credential program; and
 - c. The Entry Level Mathematics Test (ELM), if originally required by the university as a condition for taking college-credit mathematics courses.
2. **Verification of Courses** taken in ten subject areas specified by the CTC. These are Language, Literature, Mathematics, Science, Social Science, History, Humanities, Arts, Physical Education, and Human Development. This is automatically satisfied by fulfilling major requirements.
3. **A Minimum 2.5 GPA in** (1) all courses taken in the option or minor, and (2) core courses in the major. The nine core courses are ENGL 3010, SPCH 1000, MATH 4021, an upper division English literature course, a science course with lab, an arts appreciation course, an upper division American History course, an upper division Geography course, and the course taken to satisfy the Physical Development requirement in Area IV.
4. **Completion of the Field Experience Requirement** in Area IV, either by a course such as T ED 3001 or by documented experience. Satisfying this requirement in the major and for the Multiple Subject Matter Preparation Program is only a minimum, and may not be sufficient to meet admission standards for a teaching credential program. Students should be aware that it is to their advantage to obtain as much experience as possible through classroom service as a tutor, volunteer, or teacher's aide. This experience should be carefully documented; guidelines for documentation are available from the Liberal Studies Office.
5. **A Portfolio of Student Work**, to be kept, compiled, and submitted by the student with the request for subject matter certification. The portfolio should include a reasonable sample of work from a range of courses in as many of the CTC-mandated subject areas as possible. Standard items would be examinations, term papers, field logs, laboratory notebooks, and other written student projects, with instructor's comments. Photos of art work and reviews of performances may also be included. The object is not bulk, but demonstration of familiarity with required subject matter and of effective skills in writing, thinking, and speaking. A standard form will be used for the summative assessment, with a copy provided to the student. The student should pick up detailed guidelines for portfolio preparation from the Liberal Studies Office.

OPTIONS

The Liberal Studies Office advises students interested in the following Liberal Studies Options. See the departmental chapters in this catalog for information on other Liberal Studies Options. Contact the appropriate department for additional information.

Bilingual/Cross Cultural Studies (36 units)

Areas I and/or II, Spanish Language (12 units)

Three courses from the following:

MLL 2401 Intermediate Spanish I (4), 2402 Intermediate Spanish II (4), 2403 Intermediate Spanish III (4), 2410 Spanish Conversation (4), 3401 Advanced Spanish Composition and Syntax, I (4), 3402 Advanced Spanish Composition and Syntax, II (4), 3403 Advanced Spanish Composition and Syntax III (4), 3411 Introduction to Spanish Linguistics (4), 3412 Spanish Phonetics (4), 3495 Spanish-American Culture and Civilization (4)

Area VII (24 units)

A. Required course:

E S 1200 Introduction to Mexican American/Latino Studies (4)

B. Twenty units selected from:

E S 2410 Mexican American/Latino Perspectives in Film (4), 3110 Racism in America (4), 3120 The Civil Rights Movement (4), 3290 Community Development (1-4), 3805 Mexican and Latin American Immigration (4), 4000 Research Seminar in Ethnic Studies (4).

Business Studies (32 units)

Area I (8 units)

ECON 2301 Principles of Microeconomics (4)

ECON 2302 Principles of Macroeconomics (4)

Area VII (24 units)

A. Required Courses:

Either ACCT 2210 Accounting for Non-Business Majors (4) or ACCT 2251 Principles of Accounting I (4)

CIS 3060 Computer Information Systems in Management (4)

MGMT 3600 Theories of Management (4)

MKTG 3401 Introduction to Marketing Management (4)

B. Eight units selected from:

ACCT 2252 Principles of Accounting II (4); ECON 3005 Macro-Economic Theory (4); MGMT 2701 Legal Environment of Business (4), 3610 Personnel Administration (4), 3614 Organizational Behavior (4), 3680 Industrial Relations (4), 4615 Personnel Compensation (4), 4670 Multinational Business (4); MKTG 2485 Establishing and Managing a Small Business (4), 3410 Advertising Management (4), 3420 Sales Analysis and Sales Management (4), 3495 Administrative Communication (4), 4414 Promotion Management for Not-for-Profit Organizations (4), 4417 Consumer Behavior (4), 4422 Sales Personnel Development and Training (4), 4450 Marketing Seminar (4), 4470 International Marketing (4).

Early Childhood Studies (24 units)

Area VII

A. Core requirements (15-16 units)

1. Either HDEV 4700 Childhood Development (4) or T ED 3500 Introduction to Early Childhood Studies (4)

2. HDEV 4510 Cognitive Development (4)

3. HDEV 4520 Language Acquisition and the Symbolic Function (4)

4. One course from the following (3-4 units):

DANC 3235 Dance for Children (4); ENGL 4740 History of Children's Literature (4); T ED 4320 Art Skills for Teachers (4), 5240 Children's Literature in Elementary Education (3), 5242 Teaching Multi-Ethnic Literature to Children (4); THEA 3610 Interpretation of Children's Literature and Story Telling (4), 3650 Dramatic Activities for Children (4).

B. Electives (8-9 units)

ANTH 3740 Cross-Cultural Studies in Child-Rearing (4); DANC 3235 Dance for Children (4); EPSY 5021 The Exceptional Individual (4); ENGL 4740 History of Children's Literature (4); HDEV 3001, 2, or 3 Behavioral and Biological Approaches in Human Development I, II, or III (3), 4710 The Child in the Family and in the Community (4); PSYC 4200 Conditioning and Learning (4), 4210 Theories of Learning (4), 4420 Developmental Psychology (4);

SOC 3410** Sociology of the Family (4), 3413** Sociology of Parenting (4), 3415** Sociology of the African American Family (4), 3416** Sociology of the Mexican American Family (4), 3417** Sociology of the Asian American Family (4), 4750** Child Welfare (4); SPPA 3852-3 Survey of Speech and Language Disorders-Part I or II (4), 3856 Observation of Clinical Procedures in Communicative Disorders

(1-4), 4863 Phonological Disorders in Children (4), 4865 Language Disorders in Children (4); T ED 4320 Arts Skills for Teachers (4), 5021 Child Growth and Development (3), 5038 Multicultural Education (4), 5180 Play and Learning in the Education of the Young Child (4), 5240 Children's Literature in Elementary Education (3), 5242 Teaching Multi-Ethnic Literature to Children (4); THEA 3610 Interpretation of Children's Literature and Story Telling (4), 3650 Dramatic Activities for Children (4).

Language Studies (28 units)

Area II B

Required course (4 units)

HDEV 4520 Language Acquisition and the Symbolic Function (4) (Prerequisite: HDEV 4510 which is waived for Liberal Studies majors)

Area VII (24 units)

A. Required courses

A third quarter foreign language course (4)

ENGL 3005*** Study of Language (4)

SPCH 4830 Intercultural Communication (4) or

T ED 5038 Multicultural Education (4)

B. Electives (12 units)

ANTH 2800 Introduction to Anthropological Linguistics (4), 3800 Language and Culture (4); ENGL 3015*** Introduction to Phonology (4), 3040*** Linguistic History of the English Language (4), 4010*** Current Theories in Formal Grammar (4), 4060*** Topics in the Study of the English Language (4) (if topic is appropriate); PSYC 4740**** Psycholinguistics (4); SPPA 3854 Anatomy and Physiology of Speech (4); T ED 5242 Teaching Multi-Ethnic Literature (4).

Special Education (24-27 units)

Area I (5 units)

Recommend: STAT 1000 Elements of Probability and Statistics (5)

Area II.B (4 units)

Recommend one of the following:

HDEV 4520+ Language Acquisition and the Symbolic Function (4); PSYC 4740++ Psycholinguistics (4); SPPA 3854 Anatomy and Physiology of Speech (4)

Area IV.B (4 units)

Recommend one of the following:

HDEV 3001 Behavioral and Biological Approaches to Human Development I (3); PSYC 4200++ Conditioning and Learning (4), 4420++ Developmental Psychology (4)

Area IV.C (Field Experience)

Required:

Documented experience in a special education setting, either in addition to T ED 3001 or as part of a journal or other documentation submitted for this requirement.

Area VII (24-27 units)

A. Core requirements (14 units):

- EPSY 5021 The Exceptional Individual (4)
- EPSY 5121 Counseling Exceptional Children (4)
- EPSY 5125 Methods, Materials and Media for Exceptional Individuals (3)
- EPSY 5136 Curriculum for Severely Handicapped (3)

B. Electives: 10-13 units selected from at least two (2) of the following groups (10-13 units)

1. SPPA 3852+++ Survey of Speech and Language Disorders I (4), 3853+++ Survey of Speech and Language Disorders II (4), 3855 Introduction to Phonetics (4), 3856+++ Observation of Clinical Procedures (1), 3859 Introduction to Audiology (4), 4861 Introduction to Audiometry (4), 4863 Phonological Disorders in Children (4), 4865 Language Disorders in Children (4)
2. DANC 3235 Dance for Children (4); EPSY 5010 Computers in Education (3); P E 1600 Physical Activity for Special Students (1), 3305 Structural Kinesiology (5) (Prerequisite: BIOL 2010.), P E 4800 Physical Education for Exceptional Individuals (4); P E/REC 4605 Special Populations: Psychomotor Disabilities and Implications (4) (Prerequisite: P E 3305 or consent of instructor.), 5600 Special Populations: Program Development (5) (Prerequisite: P E/REC 4605 or consent of instructor); P E/REC 4605 or consent of instructor.), 5610 Special Populations: Practicum (4) (Prerequisite: P E/REC 5600 or consent of instructor.), REC 4600 Therapeutic Procedures and Techniques (4), 4601 Therapeutic Recreation Treatment and Modalities (4); T ED 5038 Multicultural Education (4), 5610 Methods and Materials for Teaching English as a Second Language and Bilingual Education (4)
3. HDEV 3001 Behavioral and Biological Approaches to Human Development I (3), 3800 Human Development and Interaction (4), 4510 Cognitive Development (4), 4520 Language Acquisition and the Symbolic Function (4), 4700 Childhood Development (4), 4710 The Child in the Family and in the Community (4); PSYC 4345++++ Sensation and Perception (4), 4350++++ Heredity and Behavior (4), 4410+++ Abnormal Psychology (4), 4420++++ Developmental Psychology (4); SOC 4750 Child Welfare (4); T ED 5021 Child Growth and Development (3)

REQUIRED COURSE LIST (RCL)

Liberal Studies Major requirements in Areas II-VI are to be satisfied by courses selected from the following list current as of February, 1996. For additions and deletions since then, students may check with the Liberal Studies Office.

Area II. B. Language Acquisition

One foreign language course at the level of at least the third quarter of the first year, or one course selected from the following:

ANTH 1800 Introduction to Anthropological Linguistics, 3800 Language and Culture; ENGL 3005 Study of Language, 3040 Linguistic History of the English Language, 4010 Current Theories in Formal Grammar; HDEV 4520+ Language Acquisition and the Symbolic Function; PSYC 4740++ Psycholinguistics; SPCH 4830 Intercultural Communication, 4860 Ethnic Public Address (4); SPPA 3852+++ Survey of Speech and Language Disorders --Part I, 3854 Anatomy and Physiology of Speech, 3855 Introduction to Phonetics, 3856+++ Observation of Clinical Procedures in Communicative Disorders

Area III. A. Natural Sciences

Two courses selected from the following, one from Life Sciences and one from Physical Sciences. The total of four science courses taken in Areas I and III must include at least three laboratory/activity courses.

Life Sciences

BIOL 1001, 1002 Introduction to Biology/Lab, 2010 Human Physiology and Anatomy I, 2030 Survey of the Plant Kingdom, 2040 Survey of the Animal Kingdom, 3015 Natural History of Marine Organisms, 3020 Genetics, Evolution, and Humanity (non-lab), 3031 Nature Study, 3060 Human Sexuality (nonlab), 4015 Horticultural Botany, 4020 Contemporary Biology (non-lab)

Physical Sciences

CHEM 1000 Popular Topics in Chemistry (non-lab), 1100 Introduction to College Chemistry, 1101 General Chemistry, 3010 The Making of Wine; GEOL 1001, 1002 Introduction to the Earth Sciences/Environmental Geology Laboratory, 1201, 1202 Introduction to Oceanography/Oceanography Laboratory, 2101 Physical Geology, 3040 Fundamentals of Meteorology (non-lab), 3050 Volcanoes and Plate Tectonics/Volcanoes Laboratory, 3051, 3100 Geology of the Western National Parks (non-lab); PHYS 1700, 1780 Elementary Physics/Laboratory, PHYS 1800, 1880 Astronomy/Laboratory, 3700 The Big Bang and Other Cosmologies (non-lab)

Area III. B. Environmental Perspectives

One course selected from the following:

ANTH 1100 Introduction to Biological Anthropology, 3100 Human Evolution I, 3101 Human Evolution II, 3110 Primate Social Behavior; BIOL 3015 Natural History of Marine Organisms, 3020 Genetics, Evolution, and Humanity, 3031 Nature Study, 3035 Endangered and Threatened Species in Bay Area and California Habitats, 4010 Microbes and Humanity, 4020 Contemporary Biology; ECON 4306 Environmental Economics; ENVT 2000 Introduction to Environmental Studies, 4100 Environmental Impact Analysis

GEOG 3000 Resource Management, 3100 Regional Climatology, 3115 Physical Landscape Analysis, 3320 Geography of World Agriculture, 3330 Urban Geography, 3340 Urban Planning, 3400 Field Geography of the San Francisco Bay Region, 4320 Energy Resources and Management, 4325 Field Course in Cultural-Urban Geography, 4350 Water Resources and Management;

GEOL 2300 Natural Disasters, 3030 Earth and Time, 3110 Principles of Geomorphology, 4320 Hydrogeology; HSC 3200 Environmental Health; HIST 3505 California Environmental History; PHIL 3151 Environmental Ethics; POSC. 3460 Environmental Law, 4171 Public Policy and the Environment; REC 4700 Environmental Recreation; SOC 3100 Seminar in Human Ecology.

Area IV. A. Physical Development

One course selected from the following:

DANC 3235 Dance for Children; P E 1625 Nutrition and Performance, 3250 Kinesiological Foundations of Physical Education.

Area IV. B. Social Development

One upper division course, at least 3-4 units, selected from the following:

ANTH 3700 Anthropology of Education, 3740 Cross-Cultural Studies in Child-Rearing; EPSY 5021 The Exceptional Individual; E S 3105 African-American Identity, 3180 The World of the Black Child; HDEV

3001-2-3 Behavioral and Biological Approaches in Human Development I, II, III; 3011-12-13 Sociocultural and Experiential Approaches in Human Development I, II, III, 3800 Human Development and Interaction, 4400 Adolescence, 4510 Cognitive Development, 4520 Language Acquisition and the Symbolic Function, 4700 Childhood Development, 4710 The Child in the Family and in the Community

PSYC 4200 Conditioning and Learning, 4350 Heredity and Behavior, 4410 Abnormal Psychology, 4420 Developmental Psychology; SOC 3410 Sociology of the Family, 3413 Sociology of Parenting, 3730 Juvenile Delinquency; T ED 5021 Child Growth and Development

Area IV. C. Field Experience

The subject matter preparation program requirement for experience in the classroom may be satisfied by one of the alternatives below. *However students should be aware that admission requirements for a credential program may require additional school experience.* For further information, consult the Department of Teacher Education.

- A. Completion of T ED 3001 Exploring Education, or its equivalent or
- B. Documented experience (30 hours) in an elementary (K-8) school classroom with children of elementary school age, in positions such as teacher's aide, tutor, or volunteer. Especially recommended is experience in a culturally diverse setting and with children with disabilities. Degree requirement may be cleared by submitting a letter from the school principal or supervisor (on school letterhead) verifying completion of K-8 classroom experience. This letter is due in the Liberal Studies Office on or before the last day of classes of the student's last quarter. A journal is to be included in the portfolio which is submitted when subject matter certification is requested, at the time of graduation or later.

Area V. A. History, Theory, and Appreciation of the Arts

Two courses, from different departments, selected from the following:

ART 1010 The Idea of Art History or any other Art History course; DANC 4200 Dance Through the Ages, 4201 Dance in Modern Society, 4202 Women in Dance; ENGL 4745 Film Criticism; E S 2125 The Black Aesthetic, 2300 Blacks in Film, 2410 Mexican American/Latino Perspectives in Film, 3145 African American Music; HIST 4895 Architecture and Society; MCOM/ART 4620 History of Photography

MUS 1000 Survey of Music Literature, 1003 Music and Dance, 1004 Introduction to World Music, 1005 Music of Our Time, 1007 History of Jazz, 1008 Music Theory for Non-Majors, 3000 Fundamentals of Music Theory and Composition, 3002 What to Listen For in Music; THEA 1005 How to See a Play, 1010 All the World's a Stage, 3201 Classical Greek and Roman Drama, 3202 European Medieval and Renaissance Drama, 3203 Modern European Drama, 3207 Modern American Theatre, 3208 Postmodern Theatre, 3210 Script Analysis: The Western Tradition, 3225 Theatre Today, 3226 The Woman Artist, 3228 Women in Dramatic Literature, 3232 Modern Art and Theatre, 3422 History of Costume, 3423 Non-Western Costume, 4375 Ethnic and Immigrant Theatre in the U.S

Area V. B. Arts Activities

At least 4 units selected from the following:

ART 1020 Introduction to World Art, 1111 The Art Experience or any other Art Studio course
Any other Art course listed in G.E. Area F in the Class Schedule.

ART/MCOM 2701 Introduction to Photography, 3600 Intermediate Photography, 4600 Advanced Photography; MCOM/ART 2700 Introduction to Photography; 3340 Graphic Communication; MUS 1015, 1016 Basic Musicianship Through Guitar for Non-Music Majors I, II; 1027, 1028, 1029 Sight-singing I, II,

III; 1311, 1312, 1313, 1314, 1315, 1316 Elementary Class Piano I, II, III; Basic Piano Class I, II, III; 2314 Keyboard Sight-Reading, 2315 Keyboard Harmony, 2500 Chamber Music in the Public Schools, 3210-3270 Applied Music (individual instruments), 3515 University Oratorio Society
Any other Music course listed in G.E. Area F in the Class Schedule

DANC 1004, 2004 Modern Dance (1 unit activity), 1019 African-Haitian Dance (1 unit activity), 1027, 2027 Jazz Dance (1 unit activity), 1029, 2027 Jazz Dance, 2029 Ballet (1 unit activity), 2030 Fundamentals of Modern Dance; THEA/DANC 2020 Rhythm and Music for Dance (2); DANC 2022 Contemporary Musical Theatre Dance, 2250 Dance Performance Theatre (1 unit activity), 3021 Cultural Dance Forms, 3215 Dance Touring, 3220-4220 Dance Performance, Composition, and Production I, II, 3235 Dance for Children, 3241 The Dance Experience, 3426 Collaborative Dance Theatre, 3690 Dance: Art and Education into Therapy; SPCH 4183 Speech and Debate Activities Workshop (Forensics competition)

THEA 1012 Exploring Creativity in Theatre and Dance, 1020 Discover Acting, 2005 Acting Fundamentals: Improvisation, 2015 Acting Fundamentals: Stage Movement, 3610 Interpretation of Children's Literature and Story Telling, 3650 Dramatic Activities for Children, 3660 Children's Theatre Performance

Any other Theatre course listed in G.E. Area F in the Class Schedule

Area VI. B. Western Heritage

One course selected from the following:

ANTH 3255 Egyptian Archeology; ART 3035 Modern Art, 3040 Art in the United States, 3220 Art in the Ancient World, 3225 Renaissances in European Art, 4071 Art Since 1945; ECON 3170 History of Economic Thought; ENGL 3400 Masterworks of British Literature, 3600 Masterworks of American Literature, 3700 Classical Literature, 3710 Medieval Literature, 3715 Dante's World I, 3716 Dante's World II, 3720 Renaissance Humanism, 3725 Petrarch and Boccaccio, 3730 The Neo-Classical Tradition, 3740 The Romantic Era, 3745 The Gothic, 3750 Realism and Naturalism, 1830-1910, 3760 Literature of the Twentieth Century, 4710 Biblical Literature, 4720 Mythology, 4833 British Novel From 1914-1945, 4870 The American Novel, 1914-1945

Modern European Languages: any upper division literature course, including those in English translation, except those in Brazilian and Spanish-American literature

HIST 1014 World Civilizations I, 1015 World Civilizations II, 1016 World Civilizations III, 4030 Historiography or any upper division course in European history; HUM 1001 Dawn of Western Civilization, 1002 Western Civilization in Transition, 1003 Modern Western Civilization

PHIL 3321 Philosophy of the Human Sciences, 3331 History of Science, 3332 Philosophy of Science, 3503 Philosophy of Law, 3601 Ancient and Medieval Philosophy, 3602 Modern Philosophy, 3603 Nineteenth Century Philosophy, 3604 Twentieth Century Philosophy, 3605 Studies in Contemporary Philosophy

POSC 3704 Marxism in Theory and Practice, 3711 Greek, Roman, and Medieval Political Thought, 3712 Early Modern Political Thought, 3713 Contemporary Political Thought; SPCH 4201 Comparative Traditions of Rhetoric; THEA 3201 Classical Greek and Roman Drama, 3202 European Medieval and Renaissance Drama, 3203 Modern European Drama, WOST. 4922 Women of the Classics

Area VI. C. African, Asian, and Western Hemisphere Civilizations

One upper division course selected from the following:

ANTH 3240 Archeology of North America, 3250 Precolumbian America: Aztec, Inca, Maya, 3510 South

America, 3535 Southeast Asia, 3545 Anthropology of China, 3550 Modern Japan, 3560 India, 3580 Middle East; ART 3010 Latin American Art, 3055 Ancient American Art

ENGL 3790 Black Literature III (Africa, Mediterranean, Caribbean), E S 3800 Peoples of Central America; MLL 3461 Introduction to Spanish-American Literature: 1492 to 1900, 3463 Introduction to Spanish-American Literature: from 1900 to the Present, 3495 Spanish-American Culture and Civilization, 3871 Topics in Brazilian Literature, 4495 A Single Movement, Country or Theme: Spanish-American Literature

GEOG 3510 Geography of Mexico, Central America, and the Caribbean Islands, 3515 Geography of South America, 3540 Geography of Eastern Asia; HIST 3301 Modern Asia, 3311 Traditional China, 3312 Modern China, 3313 People's Republic of China, 3322 Early Japan, 3323 Modern Japan, 3325 Postwar Japan, 3600 Colonial Latin America to 1700, 3601 Latin America: 1700-1900, 3602 Latin America in the 20th Century, 3615 Social Revolution in Latin America, 3622 Mexico Since 1810, 3631 The ABC Nations of South America; PHIL 3403 Philosophy of the East, 3410 Comparative Themes in Eastern and Western Philosophy; POSC 3204 Political Systems of Asia, 3230 Government and Politics in the Middle East, 3260 Government and Politics of Africa South of the Sahara, 3280 Political Systems of Latin America; SOC 3431 Seminar in World Development, 3432 Discover India; SPCH 4210 Non-Western Traditions of Rhetoric; THEA 3311 Filipino Theatre, 3423 Non-Western Costume

Area VI. D. Ethnic Experience in America

One upper division course selected from the following:

ANTH 3500 North American Indians, 3505 Indians of California, 3520 Contact Period of California; ART 3056 Ethnic Art; ENGL 3670 Asian/Filipino American Literature, 3680 Hispanic/Latino/U.S. Literature, 3691 Black Literature I, 3692 Black Literature II

E S 3000 Ethnic Writers, 3003 African American Women Writers, 3030 Immigrant and Refugee Women, 3105 African American Identity, 3110 Racism in America, 3120 The Civil Rights Movement, 3130 Slavery in the Americas, 3201 Mexican American/Latino Renaissance: Ethnicity from the 1960's to Present, 3202 Latino Writers, 3210 Latinas in the U.S., 3290 Community Development, 3305 Contemporary Native American Life, 3310 Native American World View, 3330 Native American Liberation Movements, 3555 Asian American Family Patterns, 3805 Mexican and Latin American Immigration, 3810 History of Minority Education, 3851 Asian American Women and Men

HIST 3515 The Mexican American and the American Southwest, 3567 Blacks in the United States, 3568 Blacks in the West; MCOM 3400 The Ethnic Media in America; POSC 3333 Ethnic and Minority Politics; SOC 3415 Sociology of the African American Family, 3416 Sociology of the Mexican American Family, 3417 Sociology of the Asian American Family, 3425 Prejudice and Discrimination, 3520 Sociology of Minority Groups, 3525 The African American Male; SPCH 4500 Critical Discourse in Multicultural America, 4830 Intercultural Communication, 4860 Ethnic Public Address; THEA 3310 Interpretation of Women's and Ethnic Literature, 3315 Multicultural Theatre Troupe, 4375 Ethnic and Immigrant Theatre in the United States; WOST 3420 Minority Women in America

Area VI. E. Women in Society

One upper division course, selected from the following:

ANTH 3750 Women in Cross-Cultural Perspective; ART 3227 Women in Art; BIOL 3800 Achievements of Women in Science; DANC 4202 Women in Dance; ENGL 3650 Women and Literature; E S 3003 African American Women Writers, 3030 Immigrant and Refugee Women, 3210 Latinas in the U.S., 3851 Asian American Women and Men; HIST 3124 Women in Ancient and Medieval Europe, 3136 Women in the Renaissance, 3571 Women in American History, 4710 History and Trends in Nursing; MCOM 4500

Women in Media; POSC 3170 Public Policy on the Family, 3340 Women and Politics; PSYC 3410 Psychology of Women; REC 3202 Women and Leisure; SOC 3411 Sociology of Sex Roles

THEA 3226 The Woman Artist, 3228 Women in Dramatic Literature, 3310 Interpretation of Women's and Ethnic Literature; WOST 3100 Seminar in Women's Studies, or any other upper division Women's Studies course

Area VI. F. Ethics and Social Policy

One upper division course selected from the following:

ANTH 3000 Anthropology in the Modern World; 3720 Medical Anthropology, 3760 Anthropology Through Media; CRJA 3700 Ethics and Justice Administration; ECON 3370 Public Finance, 3375 Public Choice, 3685 Labor Institutions; E S 3120 The Civil Rights Movement; H SC 3300, 3350, 3400; HIST 3000 Contemporary World Problems, 3547 Modern War; HDEV 3600 Journey of the Soul; INTS 3100 Global Systems; MGMT 4500 Business, Government, and Society

PHIL 3100 Ethics, 3150 Contemporary Ethics, 3151 Environmental Ethics, 3152 Biomedical Ethics, 3160 Business Ethics, 3213 Ethics in Literature, 3400, 3401 Contemporary Religious Thinkers, 3502 Social and Political Philosophy, 3503 Philosophy of Law, 3510 Human Rights and Social Justice, 3701 Philosophy of Education, 3925 Moral Values in the Modern World; POSC 3170 Public Policy on the Family, 3410 Law and Society, 3442 American Constitutional Law II, 3500 Contemporary World Problems, 3510 War and Peace, 3711 Greek, Roman and Medieval Political Thought, 3716 Citizenship, Community, and Democratic Theory, 3800 Public Policy Analysis, 4911 Seminar on Administrative Ethics; PUAD 4800 Public Administration and Society

SOC 3420 Social Inequality, 3425 Prejudice and Discrimination, 3431 Seminar in World Development, 3480 Violence and Conflict, 3620 Sociology of Education, 3710 Social Policy, 3720 Human Behavior and Social Environment, 4720 Medical Sociology, 4750 Child Welfare; WOST 3100 Seminar in Women's Studies

Area VI. G. Geography

One upper division course, selected from the following:

GEOG 3300 Historical Cultural Geography, 3320 Geography of World Agriculture, 3330 Urban Geography, 3360 Historical Geography of the United States, 3370 The American Language, 3500 Geography of the United States and Canada, 3505 Geography of California, 3510 Geography of Mexico, Central America, and the Caribbean Islands, 3515 Geography of South America, 3540 Geography of Eastern Asia, 3590 Geography of Europe.

* By CTC Directive, the Business Studies Option is not allowed for the Credential track.

** Maximum of two Sociology courses allowed.

*** Prerequisite is ENGL 1001, required in Area I of the major.

**** Prerequisite is PSYC 1000 which is an elective in the major.

+ Has a prerequisite of HDEV 4510 which is waived for Liberal Studies majors.

++ Has a prerequisite of PSYC 1000 which is an elective in the major.

+++ Enrollment in SPPA 3852 or 3853 requires concurrent enrollment in at least one unit of SPPA 3856.

++++ Has a prerequisite of PSYC 1000 which is an elective in the major.

Online University Catalog
California State University - Hayward
Last Update: 11/18/96

Library [LIBY]

- [MISSION AND GOALS](#)
- [LIBRARY SKILLS](#)

LIBRARY

Reference Desk: Library 2000
Phone (510) 885-3765

Director:

Noreen Alldredge

Head of Instructional Services:

Maxine Craig

Librarians:

Michele Buda, Carol Castagnozzi, Douglas Ferguson, Barbara Kwan, Marilyn Oberg, Sharon Phillips, Warner Wilkerson

Associate Librarians:

Elizabeth Ginno, Stephen Philibosian, Kristin Ramsdell

Senior Assistant Librarians:

Judy Clarence, Dana Edwards

MISSION AND GOALS

Mission

Consistent with the University's mission, the Strategic Plan of the CSU Council of Library Directors, and the Library Bill of Rights as endorsed by the American Library Association, the Library's mission is to provide a wide range of resources and services to support undergraduate and graduate instruction, faculty research, and the general informational and cultural needs of the university community.

The Library's mission is accomplished through the following goals:

Goals

- To provide students, faculty, and staff equal access to information resources in support of their learning and intellectual needs, regardless of location, learning style, or economic circumstances.
- To provide materials on site in a variety of formats and to develop and maintain collections that support the curricular and research needs of the university population.
- To provide expedient and effective bibliographic control and access to the Library's collections as well as accurate circulation status of materials.

- To serve as a gateway to information available elsewhere.
- To participate in the development of shared information resources (networking, electronic access to text, sound, and graphic images, and universal access to collections regardless of physical location) within the CSU and with other institutions.
- To facilitate library use and information access through positive, enthusiastic, and appropriate reference service and instruction.
- To provide instruction, training, and assistance to students, faculty and staff in developing information competency necessary for teaching, learning, and scholarship.
- To encourage collaboration of discipline-based faculty and library faculty in the areas of instruction (including the design of curricula and instructional methods) and collection development.
- To provide a supportive, inviting learning environment for a diverse student population.
- To develop and maintain a qualified, service-oriented staff by encouraging and supporting professional development of the library faculty and staff.
- To develop constituencies, including cross-cultural links, in the region served by the university and to serve as a resource to the community at large.
- To fulfill these goals while maintaining the privacy of Library patrons in relation to all records that are kept.

LIBRARY SKILLS

(LIBY) Courses

1510 Introduction to Library Research Skills in Business and Economics (1)

Self-directed completion of workbook which introduces students to library research facilities in the fields of marketing, management, accounting, and economics. Development of skills in the use of library resources. CR/NC grading only.

1551 Introduction to Library and Information Resources (1-3)

Instruction and practice in accessing information through print, electronic, and other non-print formats. Includes examination of the library's collections as well as information available remotely through electronic means. CR/NC grading only.

Marine Sciences [MSC]

- [UNDERGRADUATE COURSES](#)

MARINE SCIENCES

Moss Landing Marine Laboratories

The undergraduate curriculum is designed to fulfill major requirements for qualified upper division and graduate students. Such students can plan their academic schedules to provide for one or more terms at the Moss Landing Marine Laboratories and will be considered as in-residence at Hayward. Students may also take one or two all-day courses at Moss Landing to supplement their on-campus schedule. (The Admissions Office has information for concurrent registration.)

Interested students should make early application because enrollment is limited. Consult advisors in the Department of Biological Sciences or the Department of Geological Sciences for further details. An information brochure is available from the biology office or the Director's office at Moss Landing Marine Laboratories.

For additional information on the Marine Sciences program at Moss Landing Marine Laboratories, see [Marine Sciences](#) in the Graduate section of this catalog.

UNDERGRADUATE COURSES

Units are given in quarter units; hours are hours per week for a semester.

Courses Offered through the Department of Biological Sciences

3015 Natural History of Marine Organisms (4)

(See [BIOL 3015](#) for course description.)

3115 Marine Biology (4)

(See [BIOL 3115](#) for course description.)

4103 Marine Ecology (6)

A field oriented introduction to the interrelationships between marine and estuarine organisms and their environment with emphasis on quantitative data collection and analysis. Prerequisites: BIOL 3110, STAT 3031 or equivalent and consent of instructor. Two hrs. lect., 6 hrs. lab/field. (F, Sp)

4104 Quantitative Marine Science (6)

Mathematical methods for analysis of biological, chemical, and physical data from the marine environment; experimental design, parametric and non-parametric statistics; computers and programming techniques. Prerequisites: Basic college math. Three hrs. lect., 3 hrs. lab. (F, Sp)

4105 Marine Science Diving (4.5)

Skin and SCUBA diving: five ocean dives include underwater sampling and survey techniques. Successful completion gives N.A.U.I. and M.L.M.L. certifications. Not for major credit. Prerequisites: Upper division science major and pass swimming test. One hr. lect., 6 hrs. lab. (F, Sp)

4110 Introduction to Marine Animal Behavior (6)

Basic theoretical concepts of animal behavior, stressing the causation, development, and evolution of behavior. Emphasis is on the marine environment. Prerequisites: MSC 4103 or consent of instructor. Three hrs. lect., 3 hrs. lab./field. (F)

4112 Marine Birds and Mammals (6)

Systematics, morphology, ecology, and biology of birds and mammals. Prerequisites: BIOL 3580; MSC 4103 recommended. Two hrs. lect., 6 hrs. lab./field. (Sp)

4113 Marine Ichthyology (6)

The taxonomy, morphology and ecology of marine fishes. Not open to students with credit for BIOL 4570. Prerequisites: BIOL 1301 or BIOL 3580. Two hrs. lect., 6 hrs. lab./field. (Sp)

4124 Marine Invertebrate Zoology I (6)

A field oriented introduction to the structure, systematics, evolution and life histories of the major marine invertebrate phyla. Prerequisites: BIOL 1301; MSC 4103 recommended. Not open to students with credit for BIOL 3521-22. Two hrs. lect., 6 hrs. lab/field. (F)

4125 Marine Invertebrate Zoology II (4.5)

A field oriented introduction to the structure, systematics, evolution and life histories of the minor marine invertebrate phyla. Prerequisites: BIOL 1301; MSC 4103 and 4124 recommended. Not open to students with credit for BIOL 3521-22. One hr. lect., 6 hrs. lab/field. (Sp)

4131 Marine Botany (6)

Introduction to the plants of the sea, marshes, and dunes, with emphasis on the morphology, taxonomy and natural history of seaweeds and vascular plants. Prerequisites: MSC 4103 recommended. Two hrs. lect., 6 hrs. lab/field.

4135 Physiological Ecology of Marine Algae (6)

Biology of seaweeds and phytoplankton, modern methods in algae physiological research including respiration, enzyme activity, biochemical composition. Modern methods in algae physiological research, hands-on experience in basic electronic instrumentation, chemical separations, optical measurements, culturing methods, radioisotope techniques. Prerequisites: MSC 4103, 4131, 4144, or consent of instructor. Two hrs. lect., 6 hrs. lab/field.

4144 Biological Oceanography (6)

The ocean as an ecological system. Emphasis on the complexity of organismal-environmental interaction of the plankton, the transfer of organic matter between trophic levels and nutrients cycles. Laboratory sessions will include methods in sampling, shipboard techniques, identification of the plankton, and current analytical techniques. Prerequisites: general biology, general chemistry. Two hrs. lect., 6 hrs. lab.

4161 Marine Fisheries (6)

Concepts of fishery biology, including stock, recruitment, yield and abundance, age, mortality parameters. Hydrography and fishery ecology, management problems, world fisheries, mariculture, collection and analysis of fishery data. Prerequisites: MATH 1130, MSC 4104 or consent of instructor. MSC 4103 recommended. Two hrs. lect., 6 hrs. lab. (Alt. F)

4173 Topics in Marine Science (1.5-6)

The study of a selected area in marine biology (morphology, physiology, ecology, etc.). Subjects will vary depending on student demand and availability of instructors. May be repeated for credit with consent of instructor. Prerequisite: Consent of instructor. (On demand)

4174 Topics in Oceanography (1.5-6)

The study of a selected area in oceanography. The subjects will vary depending on student demand and availability of instructors. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

4177 Microscope Techniques (4.5)

Principles and techniques of light and electron microscopy. Brightfield, darkfield, phase contrast and interference contrast light microscopy; episcopic and diasopic illumination systems; photomicrography; preparation of materials for and operation of the scanning electron microscope. Prerequisites: 1 quarter college physics and consent of instructor. Two hrs. lect., three hrs. lab. (F)

4570 Ichthyology (4)

(See [BIOL 4570](#) for course description.)

4590 Biology of Marine Mammals (5)

(See [BIOL 4590](#) for course description.)

4900 Independent Study (1.5-6)

Courses Offered through the Department of Geological Sciences

4141 Geological Oceanography (6)

A study of the structures, physiography and sediments of the sea bottom and shoreline. Not open to students who have completed GEOL 4141. Prerequisite: GEOL 3702, and recommended: any course in general oceanography (concurrent registration satisfactory). Three hrs. lect., 3 hrs. lab. One field trip. (Alt. F)

4142 Physical Oceanography (6)

An introduction to the nature and causes of various oceanic motions including currents, waves, tides, and mixing and the physical properties of seawater including transmission of sound and light. Does not require calculus. Prerequisite: college algebra, college physics recommended. Three hrs. lect., 3 hrs. lab.

4143 Chemical Oceanography (6)

An introduction to the theoretical and practical aspects of the chemistry of the oceans, including major salts, dissolved gases, nutrient ions, carbonate system, transient tracers, and shipboard sampling techniques. Prerequisites: One year college chemistry. Two hrs. lect., 6 hrs. lab.

4174 Topics in Oceanography (1.5-6)

The study of a selected area in oceanography. The subjects will vary depending on student demand and availability of instructors. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

4175 Topics in Marine Science (4.5-6)

An advanced undergraduate course in a special subject area: lecture, discussion, laboratory, and field components; topics change each semester. May be repeated once for credit. Prerequisites: Consent of instructor. (On demand)

4900 Independent Study (1.5-6)

Mass Communication [MCOM]

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- [CAREER OPPORTUNITIES](#)
- [FEATURES](#)
- [MAJOR REQUIREMENTS ■ B.A.](#)
- [OPTION REQUIREMENTS](#)
- [MINOR REQUIREMENTS](#)
- [MASS COMMUNICATION OPTION: LIBERAL STUDIES](#)
- [UNDERGRADUATE COURSES](#)

MASS COMMUNICATION

Department of Mass Communication
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 3011
Phone: (510) 885-3292 FAX: (510) 885-4099

Professors:

Gregory MacGregor, Thomas S. McCoy (Interim Chair), Robert L. Terrell, Mary E. Trapp

Assistant Professor:

Mohamed Osman Elsayed

Lecturers:

Larry Bensky, Paul Chutkow, Quintin Doroquez, Reese Erlich, Tom Ferentz, Marsha Ginsburg, Nancy Green, Ann Humphrey, Kate Ingram, Cassandra Phelps, Cedric Puleston, Eric Ronning, Valerie Sue, Rick Tejada-Flores

PROGRAM DESCRIPTION

The study of Mass Communication concerns anyone who seeks to understand the content and the evolution of contemporary culture. The caring and professional instruction of those who would work in mass communication concerns anyone who hopes to influence mass communication processes, and, thus, the popular dialogue, through higher education. The Department of Mass Communication is devoted both to the study of mass communication and to the development of practical skills in journalism and other media activities. Students seeking the bachelor of arts degree major in mass communication may complete the general major requirements. Those who seek a bit more specialization may also complete one of four options in advertising, broadcasting, journalism, and public relations.

CAREER OPPORTUNITIES

Advertising Executive ■ Corporate Communicator ■ Graphic Artist ■ Magazine Writer/Editor ■ Copywriter ■ Corporate Communications Director ■ Critic ■ Film Editor ■ Journalist/Reporter ■ Media Consultant ■ Media Specialist ■ News

Director ■ Newscaster ■ Newswriter ■ Photojournalist ■ Public Relations Representative ■ Publications ■ Copy Editor ■ Radio Programmer ■ Specification Writer ■ Technical Writer ■ Television Producer

FEATURES

Related activities available through the Department of Mass Communication include: The university paper, *The Pioneer*, and the university magazine, *Escape*, and the university broadcast media, *KSUH-radio and television*. Also within the department is a working advertising agency and an active internship program in cooperation with Bay Area media.

Instructional facilities include a large and well equipped television studio, radio station, color and black-and-white photography laboratories, a 20-station computer lab for newswriting and reporting, and desktop publishing equipment for the student newspaper. Student productions are published on the Internet.

There is also affiliation with the Association of Schools of Journalism and Mass Communication, the Association for Education in Journalism and Mass Communication, the California Newspaper Publishers Association, and the California Intercollegiate Press Association. The department also sponsors a campus chapter of the Society of Professional Journalists, Sigma Delta Chi.

MAJOR REQUIREMENTS ■ B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 52 units in Mass Communication, with an additional 28-32 units in other departments.

I. Lower Division (8 units)

- MCOM 2000 Mass Media in Society (4)
- MCOM 2200 Introduction to Journalistic Writing (4)

II. Upper Division (38 units)

- A. All of the following (22 units):
 - MCOM 3000 History of Mass Communication (4)
 - MCOM 3010 News Reporting and Writing (4)
or for Broadcasting Option only, choice of:
 - MCOM 3140 Broadcast News II (4) or
 - MCOM 3160 Radio Operations (4)
 - MCOM 3110 Law of Mass Communication (4)

One workshop class chosen from the following:

- MCOM 3220* Media Workshop -- Print (2)
- MCOM 3231* Media Workshop -- Radio (2)
- MCOM 3232* Media Workshop -- TV (2)

MCOM 3310 Editing (4)

- or for Broadcasting Option only, choice of:*
- MCOM 4100 Television Documentary (4) or
 - MCOM 4200 Radio Programming and Promotion (4)

MCOM 3800 Research Methods in Mass Communication (4)

B. Two courses from the following (8 units):

MCOM 3240 Public Opinion (4), 4050 Theories of Mass Communication (4), 4110 International Communication (4), 4150 Media & Government (4), 4510 Public Relations Theory and Practice (4), 4520 Advertising Theory and Practice (4)

C. Two courses from the following (8 units):

MCOM 3100 Television Production/Direction (4), 3130 Broadcast News I (4), 3340 Graphic Communication (4), 3350 Magazine Publishing in America (4), 3410 Feature Writing (4), 4010 Public Affairs Reporting (4), 4340 Advanced Graphic Communication (4), 4450 Selected Topics in Reporting & Editing (4), 4530 Advertising/Public Relations Campaign (4)

D. Electives selected from the following (6 units):

ART/MCOM 2701 Introduction to Photography (5), 3460 Photo Imagery (5), 3600 Intermediate Photography (5), 3650 Color Photography (5), 3660 Portrait Photography (5), 4600 Advanced Photography (5); MCOM/ART 2700 Introduction to Photography (5), 3500 Photojournalism (5), 4620 History of Photography (4); MCOM 3360 Electronic Publishing and the Internet (4), 3370 Information on the Internet (4), 3400 The Ethnic Media in America (4), 3700 Digital Documentary and Photo Essay (4), 4500 Women in the Media (4), 4540 Selected Topics in Mass Communication and Public Policy (4), 4650 Media Internship (2, 4)

Note: Any other mass communication course may be used for elective credit so long as it is not being used elsewhere to fulfill major requirements. No course may be double-counted.

III. Courses in Supporting Fields (28-32 units)

A. One course in computational skills (4-5 units):

STAT 1000 Elements of Probability and Statistics (5)
STAT 1100 Elements of Descriptive and Inferential Statistics (4)
MATH 1110 The Nature of Mathematics (4)

B. Three courses in language skills (12 units):

Complete one of the following two sequences.

1. *Foreign language sequence (12)*

The foreign language sequence may be completed by taking three sequential quarters or two sequential semesters of a foreign language with a grade of "C" or better. (Sign language is accepted as a foreign language for purposes of this requirement.)

2. *Language and symbolic systems sequence (12 units)*

The language and symbolic systems sequence may be completed by taking three courses from the following: ANTH 2800 Introduction to Anthropological Linguistics (4), 3800 Language and Culture (4); ENGL 2005 Grammar for Writers (4), 2010 Vocabulary Building (4), 3005 Study of Language (4), 3010 Modern English Grammar (4), 3040 Linguistic History of the English Language (4); PSYC 4740 Verbal Behavior and Psycholinguistics (4); SPCH 3510 Small Group Communication (4), 3530 Interviewing Principles (4), 4810 Communication Theory (4), 4840 Organizational Communication (4)

C. Fields of Concentration (12-15 units)

Students should select three courses, related in subject matter, but not necessarily confined to a single department, that will provide a concentration of knowledge within one of the three broad categories of: public affairs, the social and behavioral sciences, or the natural sciences. Ideally, this concentration will complement the student's communication skills and career choice. The student's selection is to be made with departmental approval prior to the student registering for classes. (Students who have not yet fulfilled their upper division general education requirements may also be able to use these classes for that purpose.)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills Requirement; and the residence, unit, and grade point average requirements.

OPTION REQUIREMENTS

Students are not required to complete an option in order to graduate with a B.A. degree major in mass communication. Those who wish to tailor their coursework toward a more specific career goal, and who want their concentration reflected on their degree, should complete the appropriate requirements outlined below. In addition to requirements for the option, the student must complete the remaining portion of the major required of all mass communication students.

I. Advertising Option (25 units)

The advertising option is offered in cooperation with the Department of Marketing, School of Business & Economics. (An advertising option is also available within the [Business Administration major](#). See the undergraduate section of this catalog.) Students must complete the remaining portion of the major required of all Mass Communication students.

A. Lower Division Requirements

STAT 1000** Elements of Probability and Statistics (5)

ECON 2301** Principles of Microeconomics (4)

B. Upper Division Requirements

MKTG 3401*** Introduction to Marketing Management (4)

MKTG 3410*** Advertising Management (4)

MCOM 4520**** Advertising Theory and Practice (4)

MCOM 4530**** Advertising/Public Relations Campaign (4)

II. Broadcasting Option (24 units)

In addition to the option, the student must, unless otherwise specified, complete the remaining portion of the major required of all mass communication students.

MCOM 3100± Broadcast Production/Direction (4)

MCOM 3130± Broadcast News I (4)

Select one set of two courses (8)

MCOM 3140 Broadcast News II (4)

MCOM 4100 Documentary Production (4)

or

MCOM 3160 Radio Operations (4)

MCOM 4200 Radio Programming and Promotion (4)

Select one of two workshops (2)

MCOM 3231 Media Workshop-Radio (2) or

MCOM 3232 Media Workshop-TV (2)

Electives, selected from the following (6)

(Applicable to elective requirements in the major)

MCOM 3231 Media Workshop-Radio (2)

MCOM 3232 Media Workshop-TV (2)

MCOM 4650 Media Internship (2, 4)

III. Journalism Option (22 units)

In addition to the option, the student must complete the remaining portion of the major required of all mass communication students.

MCOM 3220 Media Workshop-Print (in addition to core requirement) (2)

MCOM 3340 Graphic Communication (4)

MCOM 3350 Magazine Publishing (4)

MCOM 4010 Public Affairs Reporting (4)

Two courses selected from the following (8):

MCOM 3240 Public Opinion (4)

MCOM 3410 Feature Writing (4)

MCOM 4150⁺⁺ Mass Media and Government (4)

MCOM 4450 Selected Topics in Reporting & Editing (4)

IV. Public Relations Option (25-26 units)

The Public Relations Option is offered in cooperation with the departments of Marketing and Speech Communication. In addition to the option, the student must complete the remaining portion of the major required of all mass communication students.

PSYC 1000 General Psychology (5)⁺⁺⁺

One statistics course (4-5):⁺⁺⁺⁺

STAT 1000 Probability and Statistics (5)

STAT 1100 Descriptive and Inferential Stat. (4)

MCOM 4510 Public Relations Theory and Practice (4)

MCOM 4530 Advertising/Public Relations Campaign (4)

Select two courses from one of the two groups below (8)

Group I: ⁺⁺⁺

MKTG 3420 Sales Analysis and Sales Management (4)

MKTG 4414 Promotion Management (4)

MKTG 4415 Corporate Communication (4)

MKTG 4422 Sales Training (4)

Group II: [^]

SPCH 3510 Small Group Communication (4)

SPCH 3530 Interviewing Principles (4)

SPCH 4810 Communication Theory (4)

SPCH 4840 Organizational Communication (4)

MINOR REQUIREMENTS

The minor in Mass Communication consists of 34 units. (See also minors in [Advertising](#) and [Communication Skills](#))

MCOM 2200 Introduction to Journalistic Writing (4)

MCOM 3100 Television Production/Direction (4)

MCOM 3110 Law of Mass Communication (4)

MCOM 3220 Media Workshop-Print (2)

MCOM 4050 Theories of Mass Communication (4)

Select one course, (4 units) from the two below:

MCOM 2000 Mass Media in Society (4) or

MCOM 3000 History of Mass Communication (4)

One broadcast workshop (2 units), from the two below:

MCOM 3231 Media Workshop-Radio (2) or

MCOM 3232 Media Workshop-TV (2)

Select two courses (8 units) from the following list:

MCOM 3010 News Reporting and Writing (4), 3130 Broadcast News I (4), 3140 Broadcast News II (4), 3160 Radio Operations (4), 3240 Public Opinion (4), 3310 Editing (4), 3400 The Ethnic Media in America (4), 4110 International Communication (4), 4500 Women in Media (4)

Department electives (2 units)

See also Minors in [Advertising](#) and [Communication Skills](#).

MASS COMMUNICATION OPTION: LIBERAL STUDIES

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

MCOM 2000 Mass Media in Society (4) or

MCOM 3000 History of Mass Communication (4)

MCOM 2200 Introduction to Journalistic Writing (4)

MCOM 3100 Television Production/Direction (4)

MCOM 3110 Law of Mass Communication (4)

MCOM 3220 Media Workshop -- Print (2)

MCOM 3231 Media Workshop -- Radio (2) or MCOM 3232 Media Workshop -- TV (2)

One additional upper division course in Mass Communication (4)

UNDERGRADUATE COURSES

2000 Mass Media in Society (4)

[CAN JOUR 4]

Survey of the social and economic structure of the communication media; roles of audience, media, and government in shaping communication policies. (F, W, Sp)

2200 Introduction to Journalistic Writing (4)

[CAN JOUR 2]

Fundamental theory and practice of newswriting. Prerequisite: ENGL 1001 or equivalent, with a grade of "C" or better, and typing skill. Three hrs. lect., 2 hrs. act. (A)

2700 Introduction to Photography (5)

Fundamental theory and practice of photography as a medium of communication. Involves the practical application and use of black and white photography. Cross-listed with [ART 2700](#). Not open to students with credit for ART/MCOM 2701. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for current fee. Two hrs. lect., 6 hrs. studio act.

2701 Introduction to Photography (5)

(See [ART 2701](#) for course description)

3000 History of Mass Communication (4)

An overview of the history of the mass media emphasizing development in the United States. The effects on media of such technological developments as satellites, fiberoptics and computers. (F, W, Sp)

3010 News Reporting and Writing (4)

Developing information from various sources: public records, interviews, speeches, and meetings. Story structure and flow. Understanding the reader's interests. Current events and news values of the media. Prerequisites: MCOM 2000; 2200 with a grade of "C" or better; 3000 and 3800 (or concurrent enrollment). Three hrs. lect., 2 hrs. act. (F, W, Sp)

3100 Television Production/Direction (4)

Principles of producing and directing non-dramatic program materials for television. Theory, application and practice to include equipment, studio operations and program formats. Two hrs. lect., 4 hrs. act. (F, W, Sp)

3110 Law of Mass Communication (4)

Case studies of current laws and regulations relating to defamation; contempt; invasion of privacy; obscenity; copyright; media competition; and consumer protection. (F, W, Sp)

3130 Broadcast News I (4)

Reporting methods for broadcast news with emphasis on field reporting, producing field stories, organizing the field crew, operation of portable audio and visual equipment, and editing broadcast news tape. Prerequisites: MCOM 2200, MCOM 3100. Two hrs. lect., 4 hrs. act.

3140 Broadcast News II (4)

Application of advanced news writing styles and production techniques for the electronic media. Prerequisites: MCOM 2200, 3100, 3130. Two hrs. lect., 4 hrs. act.

3160 Radio Operations (4)

Radio production techniques and station operations. Emphasis on audio production, advertising/sales, copywriting, and station management. Two hrs. lect., 4 hrs. act. (Y)

3220 Media Workshop -- Print (2)

A supervised laboratory experience in the preparation of materials for print media, particularly university student publications. Prerequisite: MCOM 2200. May be repeated. Maximum number of workshop units towards graduation: ten (10). Maximum number in any workshop: six (6). Six hrs. minimum per week. (A)

3231 Media Workshop -- Radio (2)

A supervised laboratory experience in the preparation of materials for radio, particularly university productions. Prerequisite: MCOM 3160 or consent of instructor. May be repeated. Maximum number of MCOM workshop units towards graduation: ten (10). Maximum number in any workshop: six (6). Six hrs. minimum per week. (Y)

3232 Media Workshop -- TV (2)

A supervised laboratory experience in the preparation of materials for television, particularly university productions. Prerequisite: MCOM 3100. May be repeated. Maximum number of MCOM workshop units toward graduation: ten (10). Maximum number in any workshop: six (6). Six hrs. minimum per week. (F, W, Sp)

3240 Public Opinion (4)

Reading and discussion focusing on the relationship of public opinion and the mass media, including an examination of the literature on attitude change. Practice in conducting and interpreting opinion surveys. Prerequisites: An introductory course in sociology or psychology, or consent of instructor. (Y)

3310 Editing (4)

Theory and practice of editing for the print media. Prerequisite: MCOM 2200, 3010. Three hrs. lect., 2 hrs. act. (F, W, Sp)

3340 Graphic Communication (4)

A survey of the concepts and methods of non-verbal communication with an emphasis on computer-oriented media. Provides an introduction for desktop publishing which includes design, layout, and graphic production for electronic and print media publication.

3350 Magazine Publishing in America (4)

A comprehensive investigation of the magazine publishing industry in America. Study includes types of publications, their management/economic/editorial policies. Field trips to Bay Area publishers. Prerequisite: MCOM 3010. Three hrs. lect., 2 hrs. act. (Y)

3360 Electronic Publishing and the Internet (4)

Introduction to the Internet computer network. Use of the Internet for students research and electronic publishing; placing student publications on the Internet. Three hrs. lect., 2 hrs. act.

3370 Information on the Internet (4)

Theory and methods of information gathering and analysis on the Internet as they relate to mass communication. Students learn how to approach an on-line search for information, to use a variety of specific on-line resources, and to evaluate information retrieved from various browsers, search engines, and web sites. Two hrs. lect., 4 hrs. act.

3400 The Ethnic Media in America (4)

Reading and discussion focusing on the development and impact of the ethnic media in American society, including an examination of purpose, role, audience and support. Instruction includes visits by prominent ethnic media representatives and field trips to ethnic media in the Bay Area. (Y)

3410 Feature Writing (4)

Writing feature articles, news analysis, and specialized broadcast reports distinguished from straight news reporting. Analysis of writing problems and style. Interpretive interviews and profiles. Prerequisite: MCOM 2200, 3010 or consent of instructor. Three hrs. lect., 2 hrs. act.

3500 Photojournalism (5)

The use of photography as a tool in reporting and interpreting news for print media. Processing and printing black and white photographs, camera techniques, composition, picture page design. Cross-listed with [ART 3500](#). Prerequisite: MCOM/ART 2700. A miscellaneous course fee will be charged for materials. Please consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. studio act. (Y)

3600 Intermediate Photography (5)

(See [ART 3600](#) for course description.)

3650 Color Photography (5)

(See [ART 3650](#) for course description.)

3660 Portrait Photography (5)

(See [ART 3660](#) for course description.)

3700 Digital Photography and Photo Essay (4)

History of social documentary photography and the photo essay. Students will produce photo-essay projects

using traditional photographic methods and equipment as well as computer technology. Final projects may be published on the Internet. Prerequisite: MCOM/ART 2700 or consent of instructor. A miscellaneous course fee will be charged for materials. Please consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.

3800 Research Methods in Mass Communication (4)

Basic research techniques for journalists, advertising and public relations practitioners, and communication researchers. Traditional and innovative methods of gathering information: library research, interviewing, interpretation of public opinion polls, interpreting the research literature. Computer database searches and analysis of data. (F, W, Sp)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Not applicable to the Mass Communication major or minor. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)

4010 Public Affairs Reporting (4)

Examination of sources of information for mass media. Study to include the analysis of public records and public access broadcast channels. Dynamics of and practice in investigative reporting, interviewing and writing for these modes. Prerequisites: MCOM 2200, 3010, 3110. Three hrs. lect., 2 hrs. act.

4050 Theories of Mass Communication (4)

Reading and discussion of the theoretical literature on mass communication. Surveys theories of media effects, persuasion, characteristics of audiences and channels, and the variety of human communication behavior related to mass media. Prerequisite: PSYC 1000 or SOC 1000; or consent of instructor. (Y)

4100 Television Documentary Production (4)

Fundamentals of producing television documentaries using such basic story development patterns as concept, treatment, research, story focus, story boarding, scripting, performing and narration. Prerequisite: MCOM 3130 or consent of instructor. Two hrs. lect., 4 hrs. act. (Y)

4110 International Communication (4)

Study of international communication systems, with attention to communication relationships between and among First, Second and Third World nations, and to international regulatory and policy-making agencies in communication. Reading and discussion on current issues, including technological developments and their impact on communication policy. (Y)

4150 Mass Media and Government (4)

Interactions between the media and government. Reading on and discussion of current issues, including political elite uses of the media; reporter-official relationships; studies in power manipulation, co-optation and conflict. (Y)

4200 Radio Programming and Promotion (4)

Theory and practice of radio programming and promotion, including audience and music research, music rotations, news and public affairs programming, on- and off-air promotions, bartering, broadcast formatics, working with clients, record companies. Prerequisite: MCOM 3160 or consent of instructor. Two hrs. lect., 4 hrs. act. (Y)

4340 Advanced Graphic Communication (4)

Advanced page layout, magazine ad creation, introduction to color theory and manipulation, and animation techniques. Prerequisite: MCOM 3340. Three hrs. lect., 2 hrs. act. (Y)

4450 Selected Topics in Reporting and Editing (4)

Advanced methods for reporting and editing in mass communication. Topics to be selected from such areas as: enterprise reporting, consumer reporting, editing practices, editorial writing. Content may vary and will be

announced before registration. Prerequisite: MCOM 2200, 3010. Three hrs. lect., 2 hrs. act. May be repeated for credit with consent of instructor.

4500 Women in Media (4)

Study of women in the media, including both images of women in media content and an examination of careers for women in the media. Reading and discussion, including content analysis, of contemporary and historical media portrayals of women. (Y)

4510 Public Relations Theory and Practice (4)

Principles of public relations as applied to the creation and production of messages for institutions and industry. Analysis of their "publics" including investigation of the psychological, sociological, economic, political and ethical foundations leading to a theory of communication. Prerequisite: MCOM 2200. (Y)

4520 Advertising Theory and Practice (4)

Principles of advertising applied to the creation and production of advertising messages in their many forms including the investigation of the psychological, sociological, economic, and legal aspects. (Y)

4530 The Advertising-Public Relations Campaign (4)

Current issues in advertising and public relations. Term project applying advertising or public relations principles to research, creation and production of all aspects of an actual campaign. Prerequisites: MCOM 2200 or 4520 and MCOM 3800 or MKTG 4445. (Y)

4540 Selected Topics in Mass Communication and Public Policy (4)

Subjects selected from such areas as: law, ethics, regulation, legislation and access to information. Content may vary and will be announced before registration. Prerequisite: Senior Standing. May be repeated for credit with consent of instructor.

4600 Advanced Photography (5)

(See [ART 4600](#) for course description.)

4620 History of Photography (4)

A general survey of the history of photography. The technical development and the social, aesthetic and commercial impact of the medium. Cross-listed with [ART 4620](#).

4650 Media Internship (2,4)

On-the-job experience with newspapers, industrial publications and broadcast media in the Bay Area. Twenty hours weekly. Prerequisite: Senior standing, consent of instructor. May be repeated to a maximum of 4 units. Credit/No Credit grading only. (A)

4900 Independent Study (1-4)

* The maximum number of workshop units toward graduation is ten (10). Students with credit in MCOM 3230 must add those units to their workshop total. Maximum number of units in any given workshop is six (6).

** Satisfies computational skills requirement in the major.

*** Can be applied to Fields of Concentration requirement in the major.

**** Can be applied to departmental course requirements in the major.

+ Applicable to section II (C) of the major.

++ Applicable to section III (A) of the major.

+++ Applicable to section III (C) of major

++++ Satisfies section III (A) of major

^ Applicable to section III (B.2) of major

Online University Catalog
California State University - Hayward
Last Update: 11/18/96

Mathematics [MATH]

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MATHEMATICS



Department of Mathematics and Computer Science
School of Science

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John W. Summers

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Associate Professors:

Chi Fai Ho, Dan Jurca, Farzan Roohparvar, Stuart Smith, Hwa Tang, William Thibault

Assistant Professors:

Kevin E. Callahan, Julie S. Glass, Kathleen Hann, Chung-Hsing OuYang

Lecturers:

Paula Albert, Jack A. Carter, Michael A. Contino, Dorothy E. Fujimura, Phil Gonsalves, Jean Simutis

PROGRAM DESCRIPTION

Modern technological society has many fields that need specialists in mathematics. The Department of Mathematics and Computer Science offers a variety of courses intended for those who want to pursue a career in mathematics as well as those who wish to develop quantitative and problem-solving skills for use in other fields.

Students choose to major in mathematics for a number of reasons. Some intend to become high school, community college, or university teachers. Others seek careers in business, industry, or government, where mathematically trained

people are in demand. An undergraduate major in mathematics is one of the best preparations not only for studying advanced Mathematics, but also for graduate work in Computer Science, Statistics, Operations Research, Actuarial Science, and the Natural Sciences. Most law schools are pleased to accept students with rigorous and logical training in Mathematics.

Many students combine their study of mathematics with the study of computer science. A popular option is to obtain a double major in Mathematics and Computer Science. Or students may earn a major in one of these fields and minor in the other.

The major requires six lower division courses and eleven upper division mathematics courses. The requirements are flexible enough that a student can choose one of several options according to his/her interest.

Each student is assigned a faculty advisor when (s)he declares a major and should consult this advisor regularly. A booklet containing a number of sample schedules, as well as further information about the mathematics major, is available in the Mathematics/Computer Science Student Service Center (North Science 337). Although it is not a requirement, mathematics majors are urged to take as many courses as possible in an area such as Biology, Chemistry, Economics, Management Sciences, Physics, or Statistics. These are all fields where Mathematics plays a significant role, and it is important for a mathematics major to appreciate the relevance of the subject in applications. Study of one or more foreign languages is also recommended, especially for those students anticipating graduate study.

CAREER OPPORTUNITIES

Actuary ■ Computer Analyst ■ Cryptologist ■ Economist ■ Engineer ■ Engineering Analyst ■ Financial Analyst ■ Market Researcher ■ Mathematician ■ Numerical Analyst ■ Operations Research Analyst ■ Personnel Representative ■ Programmer ■ Professor/Teacher ■ Publisher representative ■ Statistician ■ Stockbroker ■ Technical Writer

FEATURES

Cal State Hayward students can participate in the Mathematics Club, which features lectures by students and faculty and offers a variety of social activities.

Some mathematics classes use the new Interactive Macintosh Classroom.

Each year the department awards a number of scholarships covering a portion of fees for the subsequent year. Scholarship applications may be obtained from the department student service center office during the Winter quarter.

Qualified upper division and graduate students may be employed as graders for classes. Also, students may earn credit in mathematics by tutoring in the Mathematics Lab.

Students who intend to earn a high school teaching credential after graduation may apply most of their mathematics major courses to meet the standards of California's Single Subject Matter Preparation Program for a Single Subject Credential in Mathematics.

Math majors who continue on to earn a master's degree in mathematics may pursue a career as a community college mathematics teacher.

MAJOR REQUIREMENTS ■ B.S.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 68 units; the BS degree requires a total of 186 units.

I. Lower Division Requirements (24 units)

This requirement consists of the following six courses:

MATH 1304, 1305, 2304 The Calculus sequence
CS 1160 Introduction to Computer Science and Programming Methods
MATH 2101 Elements of Linear Algebra
MATH 2150 Discrete Structures

A student who has recently taken a pre-calculus course in high school should be prepared to begin the calculus sequence. A student with three years of high school mathematics, including two years of algebra and one year of geometry, should be prepared to take MATH 1130, or possibly MATH 1300. Students who are unsure about what mathematics course to begin with should call the department office. Students may not enroll in any baccalaureate level mathematics or computer science courses unless they have met the Entry Level Mathematics (ELM) requirement, or are exempt from it. Contact the Testing Office 885-3661 for more information.

II. Upper Division Requirement (44 units)

Every Mathematics major is required to complete one of the following options:

Option A (44 units)

Required courses:

MATH 3100 Linear Algebra
MATH 3331 Differential Equations

The following two sequences:

MATH 3121-3122 Abstract Algebra I & II
MATH 3300-3301 Analysis I & II

One sequence from the following five:

MATH 3151-4151 Combinatorial Mathematics
MATH 3215-4215 Geometry
MATH 3361-4361 Differential Equations
MATH 3750-4750 Numerical Analysis
MATH 3841-4841 Optimization

Electives: Three upper division mathematics courses (12 units), which may include any cross-listed, upper division course in Statistics or Computer Science (but not MATH 4021, 4022, 4023).

Option B -- Applied Mathematics (44 units)

Required courses:

MATH 3100 Linear Algebra
MATH 3331 Differential Equations

Three out of the four courses from the following two sequences:

MATH 3121-3122 Abstract Algebra I & II
MATH 3300-3301 Analysis I & II

Two sequences from the following four:

MATH 3151-4151 Combinatorial Mathematics
MATH 3361-4361 Differential Equations
MATH 3750-4750 Numerical Analysis
MATH 3841-4841 Optimization

Electives: Two upper division mathematics courses (8 units), which may include any cross-listed, upper division course in Statistics or Computer Science (but not MATH 4021, 4022, 4023).

Option C -- Mathematics Teaching (44 units)

Required courses:

MATH 3121 Abstract Algebra I
MATH 3100 Linear Algebra
MATH 3215 Geometry I
MATH 3300 Analysis I
MATH 3331 Differential Equations
MATH 3600 Number Theory
MATH 4040 History of Mathematics
STAT 3401 Introduction to Probability Theory I

One from the following three courses:

MATH 3122 Abstract Algebra II
MATH 3301 Analysis II
MATH 4215 Topics in Geometry

Electives: Two upper division mathematics courses (8 units), which may include any cross-listed, upper division course in Statistics or Computer Science (but not MATH 4021, 4022, 4023).

A student who completes Option C can satisfy rather easily the requirements for the State-approved Single Subject Matter Preparation Program in Mathematics, a program of courses designed to prepare the students for entry into the Credential Program in Mathematics, provided that judicious choices of mathematics elective courses and general education courses are made. To accomplish this, the student who completes Option C must:

1. choose MATH 4901 Senior Seminar (2) and MATH 4900 Tutoring in Mathematics (2) in the mathematics elective category.
2. complete STAT 2010 Elements of Statistics for Business and Economics (5).

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 28 units.

Required courses:

MATH 1304 Calculus I

MATH 1305 Calculus II
MATH 2101 Elements of Linear Algebra
MATH 2304 Calculus III

Two courses from the following list:

MATH 3100 Linear Algebra
MATH 3121 Abstract Algebra I
MATH 3215 Geometry I
MATH 3300 Analysis I
MATH 3331 Differential Equations

One upper division mathematics course, which may include any cross-listed, upper division course in Statistics or Computer Science (but not MATH 4021, 4022, 4023).

MINOR IN COMPUTER SCIENCE

The complete description of this minor may be found in the undergraduate [Computer Science section](#) of the current Cal State Hayward catalog. It is relatively easy for a Mathematics major to complete a minor in Computer Science. To do this, the student should take the following courses in addition to those required for the mathematics major.

CS 2360 Programming Methodology and Introduction to Software Engineering
CS 2430 Computer Organization & Assembly Language Programming

Three upper division courses as follows:

A. Two courses from the following list:

CS 3120 Programming Language Concepts
CS 3240 Data Structures and Algorithms
CS 3430 Computer Architecture
CS 4560 Operating Systems

B. One upper division Computer Science elective. This may be a third course from (A) or any course from category IV of the requirements for the major in Computer Science.

MATHEMATICS OPTION: LIBERAL STUDIES

Area VII, Credential Track, or Area VI, Liberal Arts Track (24-25 units)

MATH 1304* Calculus I (4)

MATH 1305 Calculus II (4)

Either MATH 2101 Elements of Linear Algebra (4) or MATH 2150 Discrete Structures (4)

Either MATH 2304 Calculus III (4) or STAT 2010 Elements of Statistics for Business and Economics (5) or STAT 3010 Statistical Methods in the Social Sciences (4)

Eight units of upper division Mathematics electives, selected with approval of advisor (8)

SINGLE SUBJECT MATTER PREPARATION PROGRAM

The intent of the *Single Subject Matter Preparation Program in Mathematics* is to provide students with the mathematical background necessary for obtaining a California Secondary Teaching Credential in Mathematics. In addition to the required mathematics courses, a year of education courses and practice teaching is required before a credential can be granted. The Single Subject Matter Preparation Program totals 73 units and has been approved by the California Commission on Teacher Credentialing.

A student need not be a mathematics major to complete the Single Subject Matter Preparation Program in Mathematics. However, a student who completes the mathematics major with Option C (Mathematics Teaching) should find it relatively easy to meet the requirements of the program as noted earlier.

Core Mathematics (51 units)

MATH 1300 Trigonometry and Analytic Geometry (4)
MATH 1304 Calculus I (4)
MATH 1305 Calculus II (4)
MATH 2101 Elements of Linear Algebra (4)
MATH 2150 Discrete Structures (4)
MATH 2304 Calculus III (4)
MATH 3121 Abstract Algebra I (4)
MATH 3215 Geometry I (4)
MATH 3600 Number Theory (4)
MATH 4040 History of Mathematics (4)
MATH 4901 Senior Seminar (2)
STAT 2010 Elements of Statistics for Business and Economics (5)
STAT 3401 Introduction to Probability Theory I (4)

Coursework Providing Breadth and Perspective (22 units)

Additional advanced courses that require calculus as a prerequisite (8 units):

MATH 3300 Analysis I (4)
MATH 3331 Differential Equations (4)

One course in computer science (4 units):

CS 1160 Introduction to Computer Science and Programming Methods (4)

Field experiences related to mathematics (2 units):

One course chosen from the following or other field experience approved by the Mathematics Subject Matter Preparation Advisor:

MATH 3898 Cooperative Education (2)
MATH 4900 Independent Study [in Tutoring] (2)

Additional courses to bring the total Breadth and Perspective units to 22, chosen from the following or from other related courses approved by the Mathematics Subject Matter Preparation Advisor:

CHEM 1101 General Chemistry (5), 1102 General Chemistry (5), 1103 General Chemistry (5); CS 1020 Introduction to Computers, 2340 Computer Organization and Assembly Language Programming (4), 2360 Programming Methodology and Introduction to Software Engineering (4); ECON 2301 Principles of Microeconomics (4), 2302 Principles of Macroeconomics (4)

MATH 3100 Linear Algebra (4), 3122 Abstract Algebra II (4), 3301 Analysis II (4); 4215 Topics in Geometry (4); MGMT 3100 Introduction to Quantitative Methods in Business (5); PHIL 1001 Introduction to Logic (4), 3002 Modern Logic (4); PHYS 1001 General Physics (5), 1002 General Physics (5), 1003 General Physics (5); STAT 3502 Statistical Influence I (4)

BASIC SKILLS COURSES

0801, 0802, 0803 Elementary Algebra A, B, and C (4 each)**

A three-quarter sequence in basic mathematics and elementary algebra. CR/NC grading only. On successful completion of this sequence, students should register for MATH 0950. Units will not count toward the baccalaureate degree. Prerequisites--MATH 0801: ELM score of 370 or below (ELM scores are required for registration); MATH 0802: Grade of CR in MATH 0801; MATH 0803: Grade of CR in MATH 0802. (F, W, Sp)

0900 Elementary Algebra (4)**

A one quarter course in elementary algebra. CR/NC grading only. On successful completion of this course, students should register for MATH 0950. Prerequisite: ELM score of 380-470. (ELM scores are required for registration.) Not open to students who have passed MATH 0803. Units will not count toward the baccalaureate degree. (A)

0950 Intermediate Algebra (4)

Operations with algebraic expressions, exponents and radicals; linear and quadratic equations; systems of equations and inequalities; linear and quadratic functions and their graphs; elementary conic sections; word problems. CR/NC grading only. Prerequisite: Grade of CR in MATH 0803 or MATH 0900 or an ELM score of 480-540. Units will not count toward baccalaureate degree.

UNDERGRADUATE COURSES

Computer Science courses offered by the Department of Mathematics and Computer Science are fully described in the [Computer Science section](#) of this catalog.

A student who has recently taken a pre-calculus course in high school should be prepared to enter calculus. A student with three years of high school mathematics, including two years of algebra and one year of geometry, should be prepared to take MATH 1130, or possibly MATH 1300. Such students, and others who are unsure about what mathematics course to begin with, should call the Mathematics and Computer Science Department for advice. Also, Assessment and Testing (885-3661) offers placement tests that can assist students in finding the appropriate starting class.

1110* The Nature of Mathematics (4)**

[CAN MATH 2]

This course is designed to introduce the student to mathematics as an art and mathematics as a tool, emphasizing the place of mathematics in today's world. Will satisfy the general education requirement for nonmajors.

Prerequisite: satisfactory completion of Entry-Level Mathematics requirement. (F, W, Sp)

1130* College Algebra (4)**

Functions and graphs: polynomials, rational functions, exponential and logarithmic functions. Prerequisite: satisfactory completion of Entry-Level Mathematics requirement. See note at beginning of course listings. (A)

1300 Trigonometry and Analytic Geometry (4)

Definitions, properties and graphs of the trigonometric functions. Applications. Analytic geometry of conic sections. A preparatory course for calculus. Prerequisites: MATH 1130 or departmental permission. See note at beginning of course listings.

1304 Calculus I (4) [CAN MATH SEQ C=MATH 1304, 1305, 2304]

Differential calculus. Limits and continuity. Exponential and logarithmic functions. Techniques and applications of differentiation. Prerequisite: MATH 1300 or departmental permission. See note at beginning of course listings.

1305 Calculus II (4) [CAN MATH SEQ C=MATH 1304, 1305, 2304]

Integral calculus. The indefinite integral, area, the Fundamental Theorem and techniques of integration. Application of volume, arc length, physical and biological problems. Prerequisite: MATH 1304. (A)

1810** Mathematics for Business and Social Sciences I (4)**

Precalculus review, limits and continuity, differential calculus including derivatives of polynomial, exponential and logarithmic functions, integral calculus, applications to business and social sciences. Prerequisites: MATH 1130 or satisfactory score on mathematics placement test. Not open to students with credit for MATH 1803. (A)

1820** Mathematics for Business and Social Sciences II (4)**

Multivariable calculus, Lagrange multipliers, elementary differential equations, systems of linear equations, matrices, determinants, difference equations, elementary graph theory, applications to business and social sciences. Prerequisite: MATH 1810. Not open to students with credit for MATH 1802. (A)

2101 Elements of Linear Algebra (4)

Vector spaces, linear transformations, matrices, systems of linear equations. Stress on 2 and 3 dimensions, including geometric and other applications. Prerequisite: MATH 1305 or 1820 (may be taken simultaneously with, or after, MATH 2304). (A)

2150 Discrete Structures (4)

Topics in discrete mathematics. Elementary logic, set theory, and relations; induction, enumeration techniques, recurrence relations, trees and graphs. Boolean algebra, algorithm analysis. Prerequisite: MATH 1304. (A)

2304 Calculus III (4)[CAN MATH SEQ C=MATH 1304, 1305, 2304]

Infinite series, convergence of power series. Vectors in space. Partial derivatives, chain rule, directional derivative and gradient. Curves and surfaces. Maxima and minima. Multiple integrals. Prerequisite: MATH 1305. (A)

3100 Linear Algebra (4)

Abstract vector spaces, linear transformations, matrices and determinants. Dual spaces and inner product spaces. Eigenvalues and eigenvectors. Prerequisites: MATH 2101 and 3121. (F, W, Sp)

3121, 3122 Abstract Algebra I, II (4 each)

Equivalence relations, binary operations. Integers: divisibility, factorization, integers modulo n . Groups: subgroups, cyclic groups, permutation groups, quotient groups. Homomorphisms and isomorphisms. Rings and fields: integral domains, ideals, quotient rings, polynomial rings, roots of polynomials, algebraic extensions and finite fields. Prerequisites for MATH 3121: MATH 2101, 2150, 2304. Prerequisite for MATH 3122: MATH 3121. (Y)

3151 Combinatorics (4)

Theory of counting, including partitions, Stirling numbers, generating functions. Applications of Burnside's lemma from multiple transitivity to the Polya-Redfield Theorem. Ferrers diagrams, symmetric functions, and majorization. Prerequisites: MATH 2101 and 2150.

3215 Geometry I (4)

An axiomatic approach to incidence, neutral, Euclidean, and non-Euclidean plane geometry. Various models,

such as the Euclidean, hyperbolic, and taxicab planes, will be considered throughout the course. Prerequisite: MATH 1305. (Y)

3300, 3301 Analysis I, II (4 each)

The real numbers, limits, sequences and series of real numbers, Bolzano-Weierstrass theorem. Continuity, intermediate and extreme value theorems, uniform continuity, sequences of functions. Topology of \mathbb{R}^n . Differentiation, chain rule, implicit and inverse function theorems. Prerequisites for MATH 3300: MATH 2150, 2304. Prerequisite for MATH 3301: MATH 3300. (Y)

3320 Calculus of Vector Functions (4)

Differentiation and integration of vector valued functions; gradient, divergence, and curl; cylindrical and spherical coordinates; theorems of Green and Stokes. Prerequisite: MATH 2304 and MATH 2101 (2101 may be taken concurrently).

3331 Differential Equations (4)

Methods of solution and applications of first order differential equations. Linear n -th order equations with emphasis on equations of 2nd order. Other topics may include power series solutions, Laplace transforms, linear systems. Prerequisite: MATH 2304. (A)

3361 Ordinary Differential Equations (4)

Series solution of linear differential equations with variable coefficients, two point boundary value problems, systems of differential equations, phase plane analysis. Prerequisites: MATH 2101 and 3331.

3401, 3402 Introduction to Probability Theory I, II (4 each)

(See [STAT 3401, 3402](#) for course description.)

3502, 3503 Statistical Inference I, II (4 each)

(See [STAT 3502, 3503](#) for course descriptions.)

3600 Number Theory (4)

Euclid's algorithm, prime numbers, congruences, theorems of Fermat and Euler, quadratic residues. Prerequisite: MATH 3121. (Y)

3750 Numerical Analysis I (4)

Basic numerical methods and analysis; practical solutions of problems from engineering, science, and mathematics. Computer representation of real numbers, errors, root finding, interpolation, numerical integration, ordinary differential equations. Prerequisites: CS 1160, MATH 2101 and 2304. Cross-listed with [CS 3750](#). (F, W, Sp)

3841 Linear Programming (4)

Problems of maximizing or minimizing a linear function subject to linear constraints; typical applications involve planning ("programming") the allocation of limited resources to achieve an optimal result. Topics include problem formulation, solution procedures, duality theory, sensitivity analysis, special problems (e.g., transportation and assignment problems). Prerequisite: MATH 2304 and competence in matrix algebra. (Y)

3898 Cooperative Education (2)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 2 units will be accepted toward the Mathematics major. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity; completion of lower division Mathematics major requirements and upper division standing. (A)

4021± Number Systems (4)

Sets; relations and operations on sets; numeration systems; number systems from the counting numbers through the real numbers; relations, operations, and algorithms for these sets of numbers. Prerequisite: Satisfactory completion of Entry-Level Mathematics requirement. (A)

4022± Informal Geometry (4)

Geometric figures and their properties, constructions, measurement, coordinates, transformations, and topological properties. Prerequisite: MATH 4021. (A)

4023± Functions (4)

Elementary functions on the real number system and their graphs; introduction to probability, statistics, and computer programming. Prerequisites: MATH 4021 and 4022. (A)

4040 History of Mathematics (4)

The historical development of mathematical ideas and techniques. Prerequisite: calculus or consent of instructor. (Y)

4100 Mathematical Logic (4)

The propositional calculus and its completeness. Boolean algebras. Functional calculi of various orders. Theorems of Gödel and Henkin. Prerequisite: senior standing in mathematics or consent of instructor.

4121 Advanced Algebra (4)

Theory of groups, including factor groups, Jordan-Holder Theorem, Sylow theorems. Mappings and homomorphisms. Introduction to rings and fields. Topics continued in MATH 6121. Prerequisite: MATH 3122.

4130 Set Theory (4)

Sets, relations, functions. Quotient sets and product sets. The choice axiom and its equivalent forms. Ordinal and cardinal arithmetic. Prerequisite: MATH 3121.

4151 Graph Theory (4)

Introduction to graph theory. Graphic sequences. Planar graphs and the theorems of Euler and Kuratowski. Bipartite graphs. Connectivity and spanning trees. Hamiltonian graphs. Matching, chromatic and characteristic polynomials. Cospectral graphs and the graph isomorphism problem. Algorithms. Prerequisites: MATH 2101 and 2150.

4170 Theory of Automata (4)

(See [CS 4170](#) for course description.)

4215 Topics in Geometry (4)

Topics in geometry such as algebraic, differential, finite, or projective geometry, convexity, packing and tiling, polytopes, and isoperimetric problems. Prerequisites: MATH 3215 or consent of instructor. May be repeated once for credit with consent of the chair.

4245 Analysis of Algorithms (4)

(See [CS 4245](#) for course description.)

4250 Differential Geometry and Topology (4)

Introduction to modern differential geometry and topology. Geometry of curves and surfaces, differential forms and vector fields, manifolds, curvature, geodesics, topological invariants. Prerequisites: MATH 3100, 3300, or consent of instructor.

4301 Analysis III (4)

Manifolds and smooth maps, vector fields and differential forms, Riemann integration for functions of several variables, Fubini theorem, theorems of Green, Gauss, and Stokes, general Stokes theorem. Prerequisite: MATH 3301.

4340 Introduction to Complex Variables (4)

Introduction to theory of functions of complex variables. Prerequisite: MATH 3300.

4350 Theory of Functions of a Real Variable (4)

Pointwise and uniform convergence, Taylor series, Riemann integration, sets of measure zero, Lebesgue's theorem on the Riemann integral, the metric space of continuous functions, and selected topics. Prerequisite: MATH 3300.

4360 Introduction to Topology (4)

Topological spaces, metric spaces, continuity, connectedness and compactness. Prerequisite: MATH 3300.

4361 Partial Differential Equations (4)

Differential equations of physics: the wave equation, the heat equation, Laplace's equation; boundary-value problems. Elementary Sturm-Liouville theory, Fourier series, Fourier and Laplace transforms, Bessel functions, selected topics. Prerequisite: MATH 3331.

4365 Dynamical Systems (4)

Introduction to dynamical systems and applications. Variational calculus, Lagrangian dynamics, principle of critical action, Hamiltonian systems and symplectic mechanics, Hamilton-Jacobi equation, chaotic and nonlinear systems, fractals. Prerequisites: MATH 3100, 3300, 3331, or consent of instructor.

4401 Introduction to Stochastic Processes (4)

(See [STAT 4401](#) for course descriptions.)

4750 Numerical Analysis II (4)

Continuation of MATH 3750. Numerical solution of linear systems, matrix norms, approximation of functions, algebraic eigenvalues. Prerequisite: MATH/CS 3750. Cross-listed with [CS 4750](#). (F, W, Sp)

4841 Topics in Optimization (4)

Sequel to MATH 3841. Topics to be drawn from linear and/or nonlinear programming. Linear programming topics may include integer programming, game theory, network programming; nonlinear programming topics include optimality conditions and solution procedures for unconstrained and constrained optimization problems. May be repeated once for credit with consent of the chair. Prerequisite: MATH 3841.

4900 Independent Study (1-5)**4901 Senior Seminar (2)**

Exploration of topics in mathematics. Topics selected from the literature to illustrate relationships among various areas of mathematics. Oral presentations and paper required. Prerequisite: senior standing in mathematics (completion of 32 units of mathematics courses) or permission of the instructor.

5900 Independent Study (1-3)

* Students with insufficient mathematics background may have to complete MATH 1300 before entering MATH 1304. Students subject to the Entry Level Mathematics requirement (ELM) must fulfill that requirement before enrolling in any baccalaureate level mathematics course.

** Completion of MATH 0803 or MATH 0900 does not satisfy the ELM requirement. After completing MATH 0803 or MATH 0900, students must pass MATH 0950 before enrolling in a baccalaureate-level mathematics course.

*** Upper division mathematics and computer science majors will not receive credit for this course.

**** MATH 1810-1820 replace MATH 1802-1803 from earlier catalogs. Students who have partially completed the MATH 1802-1803 sequence should consult the Department of Mathematics and Computer Science.

+ Intended for prospective elementary and junior high school teachers; Mathematics and Computer Science majors will not receive credit for this course.

Modern Languages and Literatures [MLL]

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MODERN LANGUAGES AND LITERATURES

Department of Modern Languages and Literatures
School of Arts, Letters, and Social Sciences
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PROGRAM DESCRIPTION

The Department of Modern Languages and Literatures at Cal State Hayward offers courses of study leading to a Bachelor of Arts degree with majors in French and Spanish. Academic Minors are offered in French, German, Italian, Portuguese, Russian, Sign Language, and Spanish. Elementary courses are offered also in Filipino, Japanese, Latin, Mandarin, and Vietnamese. All programs have been designed to provide students with the cultural understanding and the academic knowledge necessary for future pursuits in the teaching of foreign languages and literatures or for graduate work in the same fields. Students may utilize other languages and literatures offered in the department as part of a Special Major in various area studies.

A Bachelor of Arts degree major in International Studies is administered through the Department of Modern Languages and Literatures. The International Studies major consists of an integrated group of courses reflecting international aspects of various disciplines. It is designed to provide the student with a broad base of understanding of the interrelationship of the world community, while at the same time providing the opportunity to specialize in an area of interest. An International Studies minor is also offered. See the listing under [International Studies](#) for further details.

With the growing involvement of the United States in international business and the increasingly multicultural character of American society itself, the importance of foreign languages in nearly every kind of occupation is considerable. The majors in foreign languages and literatures, therefore, may lead to teaching careers and represent

direct, practical assets in other fields such as business, industry and commerce, civil service, law, library science, media, science, health services, social work, travel, and tourism.

CAREER OPPORTUNITIES

Teaching ■ Business ■ Industry and Commerce ■ Law and Law Enforcement ■ Library Science ■ Mass Communication ■ Health and Social Services ■ Travel and Tourism ■ Translation and Interpretation ■ Government Service

FEATURES

The department faculty come from a wide variety of national and academic backgrounds and have traveled extensively in the countries whose languages they are teaching. Slides, films, dramatic performances, potluck dinners and other activities provide the opportunity for students to interact with one another and with their professors. For those who wish to further their interest in a foreign culture and language, the Department of Modern Languages and Literatures offers clubs. Foreign Language Clubs include the French Club, the Tomodachi Club (Japanese Cultural Club), and the Spanish Language Club.

For those who wish to accelerate their learning of another language, the department offers a Summer quarter intensive program in Spanish which covers one year's work in one quarter and yields twelve units of credit. The language laboratory is another useful feature of the department. In the laboratory students can listen to tapes which help improve their pronunciation, fluency, and comprehension. In addition, students are encouraged to take advantage of the California State University International Programs. They can take courses in a variety of universities abroad and apply them towards a degree at Cal State Hayward.

PLACEMENT

For students to enroll at the proper level of language instruction, the department recommends the following guideline: one year of high school foreign language instruction equals one quarter of Cal State Hayward instruction. Students are expected not to repeat credit already earned in high school unless significant time has passed since the initial instruction. The department offers placement exams to facilitate student placement. Students should contact the department before enrolling in a lower division language class.

Students in foreign language majors, minors, and options may have lower division language requirements waived for those courses below the level at which they enroll.

Advanced Placement

A student who has successfully completed the advanced placement course in a foreign language or literature in high school and has a score of 3 or better on the Advanced Placement Examination will receive 8-12 units of credit equivalent to two or three courses of a foreign language as listed below.

If you have completed the *French Language* examination with a score of 3 or better, you will receive 12 units of credit equivalent to MLL 2101, 2102, and 2103. If you have completed the *French Literature* examination with a score of 3 or better, you will receive 8 units of credit equivalent to MLL 3106 and 3108. If you have completed the *German Language* examination with a score of 3 or better, you will receive 12 units of credit equivalent to MLL 2201, 2202, and 2203. If you have completed the *Spanish Language* examination with a score of 3 or better, you will receive 12

units of credit equivalent to MLL 2401, 2402, and 2403. If you have completed the *Spanish Literature* examination with a score of 3 or better, you will receive 8 units of credit equivalent to MLL 3400 and 4455. If you have completed one of the *Latin Classics* examinations with a score of 3 or better, you will receive 4 units of credit equivalent to MLL 1701. If you completed both Latin examinations with a score of 3 or better, you will receive 8 units of credit equivalent to MLL 1701 and 1702.

MAJOR REQUIREMENTS - B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements.

I. French

The French major consists of 44-68 units; the B.A. degree requires a total of 186 units. Acquisition of a reading knowledge in a second foreign language is strongly recommended.

A. Lower Division (0-24 units)*

MLL 1101, -2, -3 Elementary French (12)

MLL 2101, -2, -3 Intermediate French (12), or equivalent

MLL 2110 French Conversation (4) is strongly recommended

B. Upper Division (44 units)

MLL 3101, -2 Composition and Advanced Composition (8)

and

MLL 3111 Phonology and Morphology (4) or MLL 3130 French Culture and Civilization (4)

Thirty-two units from among the other upper division French courses (32)

II. Spanish

The Spanish major consists of 44-72 units; the B.A. degree requires a total of 186 units. Students are expected to consult with Spanish division advisors in order to assure a well balanced program of upper division courses. Proficiency in another foreign language is strongly recommended.

A. Lower Division (0-28 units)

MLL 1401, -2, -3 Elementary Spanish (12)

MLL 2401, -2, -3 Intermediate Spanish (12)

MLL 2410 Spanish Conversation (4)

B. Upper Division (44 units)

1. MLL 3401, -2, -3 Advanced Composition & Syntax (12)

Plus One course selected from the following group:

MLL 3411, 3412 Spanish Linguistics, Phonetics (4)

2. Eight (8) units of Spanish American Literature from among the following courses:

MLL 3461, MLL 4495, MLL 3463, MLL 3495

3. Eight (8) units of Spanish Peninsular Literature from among the following courses:

MLL 4454, 4455, MLL 4459, 4460

4. Twelve (12) additional units should be selected from among all upper division Spanish literature courses including MLL 3400. A maximum of four units of literature may be replaced by the one course not yet taken from the series MLL 3411, -12. (*Note:* Courses numbered MLL 4454, 4455, 4459, 4460, and 4495 may be repeated as content changes. If repeated, the courses may be applied to more than one category of requirements: Groups 2 & 4 or Groups 3 & 4)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

I. French Minor (20-44 units)

A. Lower Division (0-24 units)*

MLL 1101, -2, -3 Elementary French (12)

MLL 2101, -2, -3 Intermediate French (12), or equivalent

MLL 2110 French Conversation (4) is strongly recommended

B. Upper Division (20 units)

MLL 3101, -2 Composition and Advanced Composition (8)

and MLL 3111 Phonology and Morphology (4)

Any two other upper division French courses (8)

II. German Minor (24-36 units)

A. Lower Division*

MLL 1201, -2, -3 Elementary German (12)

MLL 2201, -2, -3 Intermediate German (12)

B. Upper Division

MLL 3201 Advanced German (4)

MLL 3230 Germany Today (4)

MLL 3291 German Studies (4)

III. Italian Minor (24-36 units)

A. Lower Division (12-24 units)*

MLL 1301, -2, -3 Elementary Italian (12)

MLL 2301, -2, -3 Intermediate Italian (12)

B. Upper Division (12 units)

MLL 3307** Contemporary Spoken Italian (4)

MLL 3308 Italy Today (4)

MLL 3309** Studies in Italian Lit. (in English)(4)

IV. Portuguese Minor (24-36 units)

A. Lower Division (12-24 units)*

MLL 1851, -2, -3 Elementary Portuguese or

MLL 1861-72 Self-paced Elementary Portuguese (12)

MLL 2851, -2, -3** Intermediate Portuguese (12)

B. Upper Division (12 units)

MLL 3851 Portuguese Grammar and Composition (4)

MLL 3861** Topics in Portuguese Literature (4)

MLL 3871** Topics in Brazilian Literature (4)

V. Russian Minor (20-44 units)

A. Lower Division (8-24 units)*

MLL 1501, -2, -3 Elementary Russian (12) or
MLL 1521-31 Self-Paced Elementary Russian (12) (an alternative method of satisfying first-year lower division requirements for the minor in Russian)
MLL 2501, -2, -3 Intermediate Russian (12) or
MLL 2521-32 Self-Paced Intermediate Russian (12) (an alternative method of satisfying first-year lower division requirements in Russian)

B. *Upper Division (20 units)*

MLL 3504** Advanced Russian (4)

MLL 3587** Topics in Russian Literature and Culture in English (4)

VI. **Sign Language Minor (24-36 units)**

A. *Lower Division (12-24 units)**

MLL 1901, -2, -3 Elementary Sign Language (12)

MLL 2901, -2, -3 Intermediate Sign Language (12)

B. *Upper Division (12 units)*

MLL 3902 Deaf Culture (4)

MLL 3903 Topics in American Sign Language (4)

MLL 3904 Sign Language: Field Work (4)

VII. **Spanish Minor (24-48 units)**

A. *Lower Division (0-24 units)**

MLL 1401, -2, -3 Elementary Spanish (12)

MLL 2401, -2, -3 Intermediate Spanish (12)

B. *Upper Division (24 units)*

MLL 3401, -2, -3 Advanced Composition and Syntax (12)

MLL 3411 Introduction to Spanish Linguistics (4) or MLL 3412 Spanish Phonetics (4)

C. *One course from each of the two following areas:*

Spanish Peninsular literature:

MLL 4454, 4455, 4459, 4460 (4)

Spanish-American literature:

MLL 3461, 3463, 3495, 4495 (4)

MLL 3400 may replace one of the above required courses.

MODERN LANGUAGES OPTIONS: LIBERAL STUDIES

Program for French and Spanish

Areas I and II.B (0-12 units)*

Third quarter of first year and 1st and 2nd quarters of second year college-level courses

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

Third quarter of second year (4)

Twenty units of upper division courses in the same language, with no more than 4 units taught in translation (20)

Program for Italian, Portuguese, Russian

Areas I and II.B (0-12 units)*

1000-level first year courses

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

2000-level second year courses (12)

Twelve units upper division courses (12)

SIGN LANGUAGE OPTION: LIBERAL STUDIES

Areas I and II.B (0-12 units)*

MLL 1901 Elementary Sign Language I (4)

MLL 1902 Elementary Sign Language II (4)

MLL 1903 Elementary Sign Language III (4)

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

MLL 2901 Intermediate Sign Language I (4)

MLL 2902 Intermediate Sign Language II (4)

MLL 2903 Intermediate Sign Language III (4)

MLL 3902 Deaf Culture (4)

MLL 3903 Topics in American Sign Language (4)

MLL 3904 Sign Language: Field Work (4)

UNDERGRADUATE COURSES

General

3710 Medieval Literature (4)

(Cross-listed with [ENGL 3710](#))

3720 Renaissance Humanism (4)

(Cross-listed with [ENGL 3720](#))

3730 The Neo-Classical Tradition (4)

(Cross-listed with [ENGL 3730](#))

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the majors and minors offered by Modern Languages. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)

4900 Independent Study (1-4)

5900 Independent Study (1-4)

6900 Independent Study (1-4)

Modern Literature in English Translation

3119 French Literature in English Translation (4)

(See description under French courses.)

3140 French Films: France through the Eye of the Camera (in English) (4)

(See description under French courses.)

3230 Germany Today (in English) (4)

(See description under German courses)

3309 Studies in Italian Literature (in English) (4)

(See description under Italian courses.)

3587 Topics in Russian Literature and Culture in English (4)

(See description under Russian courses.)

3938 Italian American Women Through Literature (4)

(See description under Italian courses)

4461 Spanish Film (in English) (4)

(See description under Spanish courses)

NOTE: Students may be admitted to any of the following courses by consent of instructor.

Chinese

1601, 1602, 1603 Elementary Mandarin Chinese I, II, III (4 each)

Introduction to the speaking, understanding, reading, and writing Mandarin Chinese. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1601 is prerequisite to MLL 1602, or consent of instructor; MLL 1602 is prerequisite to MLL 1603, or consent of instructor.

2601, 2602, 2603 Intermediate Mandarin Chinese I, II, III (4 each)

A continuation of MLL 1603 with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of Chinese culture. (F, W, Sp) MLL 2601 is prerequisite to MLL 2602, or consent of instructor; MLL 2602 is prerequisite to MLL 2603, or consent of instructor.

Filipino

1651, 1652, 1653 Elementary Filipino I, II, III (4 each)

Introduction to speaking, reading, and writing and understanding Filipino. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1651 is prerequisite to MLL 1652, or consent of instructor; MLL 1652 is prerequisite to MLL 1653, or consent of instructor.

French

1101, 1102, 1103 Elementary French I, II, III (4 each)

Introduction to speaking, understanding, reading, and writing French. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1101 is prerequisite to MLL 1102, or consent of instructor; MLL 1102 is prerequisite to MLL 1103, or consent of

instructor.

2101, 2102, 2103 Intermediate French I, II, III (4 each)

A continuation of MLL 1103, with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of the cultures of the French-speaking world. (F, W, Sp) MLL 2101 is prerequisite to MLL 2102, or consent of instructor; MLL 2102 is prerequisite to MLL 2103, or consent of instructor.

2110 French Conversation (4)

Emphasis on the spoken language studied through texts. Strongly recommended for majors. Prerequisite: MLL 2103 or consent of instructor.

3101 French Composition (4)

Written French and formal grammar. Prerequisite: MLL 2103 or equivalent.

3102 Advanced French Composition (4)

Continuation of MLL 3101. Prerequisite: MLL 3101 or equivalent.

3105 French Conversation (4)

The spoken language studied and practiced. For students with a good academic background and/or literary level beyond MLL 3102 and 3106. Prerequisite: MLL 3102 and MLL 3106, or consent of instructor.

3106 Introduction to Literary Studies: Prose (4)

Background and critical appraisal of essential French prose works, from the 16th to the 20th centuries. Prerequisite: MLL 3102 or consent of instructor.

3108 Introduction to Literary Studies: Drama (4)

Background and critical appraisal of important plays from the 12th to the 20th centuries. Prerequisite: MLL 3102 or consent of the instructor.

3109 French Medieval and Renaissance Literature (4)

The epic, Arthurian romances, satire, the theatre, poetry, Rabelaisian humor, and essays. Selections from the Chanson de Roland, Chrétien Troyes, Villon, Rabelais, Ronsard, the Pleiade, and Montaigne. Prerequisites: MLL 3106 or 3108, or consent of instructor. May be repeated for credit if subject matter is different.

3111 Introduction to French Phonology and Morphology (4)

Scientific analysis of the French language with emphasis on the discovery of formal units and patterns in linguistic behavior. The phonemic principle. Morphological structure. Prerequisite: MLL 3102 or consent of instructor.

3114 17th Century French Literature (4)

Studies in 17th Century French society and literature emphasizing the theatre (Corneille, Racine, Molière), or the non-dramatic writers (Pascal, Mme. de la Fayette, La Fontaine). Prerequisite: MLL 3106 or 3107 or 3108 or consent of instructor. May be repeated for credit if subject matter is different.

3115 18th Century French Literature (4)

Selected topics from 18th Century French literature emphasizing writers such as Voltaire, Rousseau, and Diderot. Prerequisite: MLL 3106 or 3107 or 3108 or consent of instructor. May be repeated for credit if subject matter is different.

3116 19th Century French Literature (4)

Studies in Romanticism, Realism, and Naturalism emphasizing such writers as Hugo, Lamartine, Balzac, Stendhal, Flaubert, Zola, Baudelaire, Rimbaud, and Mallarmé. Prerequisite: MLL 3106 or 3108 or consent of instructor. May be repeated for credit if subject matter is different.

3117 20th Century French Literature (4)

Studies in the modern novel, poetry, the theatre of the absurd, and existentialism. Works by Proust, Mauriac, Gide, Camus, Sartre, Beauvoir, Ionesco, and Apollinaire. Prerequisite: MLL 3106 or 3107 or 3108 or consent of instructor. May be repeated for credit if subject matter is different.

3118 French Dramatic Performance (4)

Preparation of scenes from French theatre and of a Guignol puppet show for performance. May be repeated once for credit. Prerequisite: MLL 1102 or equivalent or consent of instructor.

3119 French Literature in English Translation (4)

An interdisciplinary study of major authors and movements in French literature, emphasizing literary, philosophical, historical and cultural backgrounds. May be repeated for credit once if subject matter is different. Fulfills the University Writing Skills requirement for students who began work on the present degree before Fall quarter, 1985.

3120 A Promenade through French and Francophone Culture (4)

A multimedia exploration of the evolution of French culture from the martyrdom of Saint Denis to the present. Historical and fictional personalities reflecting French and Francophone mentality from Paris to Africa, the Caribbean, and Quebec.

3130 French Culture and Civilization (4)

A study of French culture through literary and linguistic examples, taken from the Middle Ages through the twentieth century, illustrating its artistic, political, social, and philosophical schools. Prerequisite: MLL 2103 or consent of instructor. May be repeated for credit if subject matter changes.

3140 French Films: France Through the Eye of the Camera (in English) (4)

French language and culture in films dealing with childhood, war, women, male-female relationships, violence, social class. Development of French cinema in films by Jean Renoir, Cocteau, Truffaut, Godard and others. May be repeated once when content changes.

4100 French Literary Themes and Figures (4)

A study of selected themes and figures in French literature emphasizing an author, genre, or movement. Prerequisite: MLL 3106 or 3107 or 3108 or consent of instructor. May be repeated for credit if subject matter is different.

German**1201, 1202, 1203 Elementary German I, II, III (4 each)**

Introduction to speaking, understanding, reading, and writing German. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1201 is prerequisite to MLL 1202, or consent of instructor; MLL 1202 is prerequisite to MLL 1203, or consent of instructor.

2201, 2202, 2203 Intermediate German I, II, III (4 each)

A continuation of MLL 1203, with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of German culture. (F, W, Sp) MLL 2201 is prerequisite to MLL 2202, or consent of instructor; MLL 2202 is prerequisite to MLL 2203, or consent of instructor.

3201 Advanced German (4)

Advanced grammar and structure of the German language with emphasis on composition. Prerequisite: MLL 2203 or consent of instructor. (Y)

3230 Germany Today (in English) (4)

An introduction to current cultural, literary, social, and political trends in Germany with emphasis on

intercultural communication. Discussions and readings based on the material presented. A significant written component is required. Course may be repeated for credit if subject matter is different.

3291 German Studies (4)

An interdisciplinary course with variable topics dealing with particular aspects of German literature and culture. A significant written component is required. Course may be repeated for credit if subject matter is different.

Greek

1711 Ancient Greek I (4)

A study of ancient Greek grammar to achieve skill in reading and writing both classical and New Testament (Koine) Greek.

1712 Ancient Greek II (4)

A continuation of MLL 1711. Prerequisite: MLL 1711 or consent of instructor.

1713 Ancient Greek III (4)

A continuation of MLL 1712. Prerequisite: MLL 1712 or consent of instructor.

Italian

1301, 1302, 1303 Elementary Italian I, II, III (4 each)

Introduction to speaking, understanding, reading, and writing Italian. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1301 is prerequisite to MLL 1302, or consent of instructor; MLL 1302 is prerequisite to MLL 1303, or consent of instructor.

2301, 2302, 2303 Intermediate Italian I, II, III (4 each)

A continuation of MLL 1303, with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of Italian culture. (F, W, Sp) MLL 2301 is prerequisite to MLL 2302, or consent of instructor; MLL 2302 is prerequisite to MLL 2303, or consent of instructor.

3307 Contemporary Spoken Italian (4)

Conversation, moderated group discussions, and students' reports based upon Italian texts, films, and periodicals reflecting contemporary Italy. May be repeated for credit if subject matter is different. Prerequisite: MLL 2303 or consent of instructor.

3308 Italy Today (4)

Discussions and readings based on the literature reflecting cultural trends in Italy. Prerequisite: MLL 2303 or consent of instructor.

3309 Studies in Italian Literature (in English) (4)

An interdisciplinary study of major Italian literary trends, works and figures. May be repeated for credit if subject matter is different. Fulfills the University Writing Skills Requirement for students who began work on the present degree before Fall quarter, 1985.

3938 Italian American Women through Literature (4)

A portrayal of Italian American women as emerging through literature written by men and women. Changing roles of grandmothers, mothers, and daughters and to what extent these have been influenced by inherited Italian culture patterns persisting in the U.S. In English. Cross-listed with WOST 3938.

Japanese

1801, 1802, 1803 Elementary Japanese I, II, III (4 each)

Introduction to speaking, understanding, reading, and writing Japanese. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1801 is prerequisite to MLL 1802, or consent of instructor; MLL 1802 is prerequisite to MLL 1803, or consent of instructor.

2801, 2802, 2803 Intermediate Japanese I, II, III (4 each)

A continuation of MLL 1803, with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of Japanese culture. (F, W, Sp) MLL 2801 is prerequisite to MLL 2802, or consent of instructor; MLL 2802 is prerequisite to MLL 2803, or consent of instructor.

Latin

1701 Elementary Latin I (4)

Fundamentals of grammar and the reading of elementary texts. Reading is begun as early as possible and continued in conjunction with grammatical study. (Alt. F)

1702 Elementary Latin II (4)

Continuation of MLL 1701. Prerequisite: MLL 1701 or consent of instructor. (Alt. W)

1703 Elementary Latin III (4)

Continuation of MLL 1702. Prerequisite: MLL 1701, -2, or consent of instructor. (Alt. Sp)

Portuguese

1851, 1852, 1853 Elementary Portuguese I, II, III (4 each)

Introduction to speaking, understanding, reading, and writing Portuguese. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1851 is prerequisite to MLL 1852, or consent of instructor; MLL 1852 is prerequisite to MLL 1853, or consent of instructor.

1861-72 Self-Paced Elementary Portuguese (1 each)

The self-paced series in elementary Portuguese, divided into twelve mini-courses, allows students to complete one year of Elementary Portuguese at their individual paces. Regular class attendance is not required; however, students must meet with the instructor at least two times per chapter. MLL 1861-64 correspond to MLL 1851, MLL 1865-68 correspond to MLL 1852, MLL 1869-72 correspond to MLL 1853. Students may register for up to 12 units in self-paced Elementary Portuguese; however, those students who had previously earned credit for any of the MLL 1851-2-3 courses cannot earn credit for the corresponding MLL 1861-72 self-paced modules.

1861:

The present tense of -ar verbs, word order, contractions of prepositions and articles.

1862:

The present tense of -er and -ir and some irregular verbs, indefinite and negative adverbs and pronouns.

1863:

More irregular verbs, possessives, personal information phrases.

1864:

Irregular plurals, preterites, objective pronouns, kinship and calendar terms.

1865:

Irregular preterites, imperfect tense, colors.

1866:

Future and conditional tenses, comparatives and superlatives, letter writing.

1867:

Present and past participles, perfect tenses, passive voice.

1868:

Present subjunctive, syllabication.

1869:

Past subjunctive, future perfect, que and qual.

1870:

Future subjunctive, reflexives, por and para.

1871:

Personal infinitive, simple pluperfect, diminutives and augmentatives.

1872:

Perfect subjunctives, conditional sentences with se clauses, spelling alternation in conjugations.

2851, 2852, 2853 Intermediate Portuguese I, II, III (4 each)

A continuation of MLL 1853, with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of the cultures of the Portuguese-speaking world. (F, W, Sp) MLL 2851 is prerequisite to MLL 2852, or consent of instructor; MLL 2852 is prerequisite to MLL 2853, or consent of instructor.

3851 Portuguese Grammar and Composition (4)

Advanced grammar and structure applied to composition in the language. Prerequisite: MLL 2853 or consent of instructor.

3861 Topics in Portuguese Literature (4)

A variable subject course dealing with a particular aspect of Portuguese literature. May be repeated for credit if subject matter is different. Prerequisite: MLL 2853 or consent of instructor.

3871 Topics in Brazilian Literature (4)

A variable subject course dealing with a particular aspect of Brazilian literature. May be repeated for credit if subject matter is different. Prerequisite: MLL 2853 or consent of instructor.

Russian

1501, 1502, 1503 Elementary Russian I, II, III (4 each)

Introduction to speaking, understanding, reading, and writing Russian. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1501 is prerequisite to MLL 1502, or consent of instructor; MLL 1502 is prerequisite to MLL 1503, or consent of instructor.

1521-1531 Self-paced Elementary Russian (12)

The self-paced series in Elementary Russian, divided into eleven mini-courses, allows students to complete one year of Elementary Russian at their individual paces. Regular class attendance is not required; however, students must meet with the instructor at least two times per chapter. Two chapters equal 1 unit of credit, with the exception of MLL 1521, where three chapters equal 2 units of credit because the Cyrillic alphabet, the sound system and some basic vocabulary are introduced. MLL 1521-1523 correspond to MLL 1501, MLL 1524-1527 correspond to MLL 1502, MLL 1528-1531 correspond to MLL 1503. Students may register for up to 12 units in self-paced Elementary Russian; however, those students who had previously earned credit for any of the MLL 1501-2-3 courses cannot earn credit for the corresponding MLL 1521-1531 self-paced modules or vice versa.

1521 Self-paced Elementary Russian I (2)

The Russian alphabet and sound system, and some basic vocabulary. (Y)

1522 Self-paced Elementary Russian I (1)

Introduction to the genders, the gender endings of nouns and adjectives, declensions, personal pronouns, and possessive and demonstrative pronoun-adjectives. (Y)

1523 Self-paced Elementary Russian I (1)

Adjectives in the nominative, locative and genitive cases. The genitive case of nouns. (Y)

1524 Self-paced Elementary Russian II (1)

Introduction to the accusative and dative singular of nouns and modifiers, and first conjugation verbs. (Y)

1525 Self-paced Elementary Russian II (1)

The instrumental case, possessives, numerals and second conjugation verbs. (Y)

1526 Self-paced Elementary Russian II (1)

Review of the singular declension of nouns, pronouns and adjectives. Introduction to the nominative plural of nouns and modifiers. (Y)

1527 Self-paced Elementary Russian II (1)

Introduction to verbal aspects in the Russian language. (Y)

1528 Self-paced Elementary Russian III (1)

The genitive and accusative plural of nouns and adjectives, age, time, and verbs of going and riding. (Y)

1529 Self-paced Elementary Russian III (1)

Introduction to the imperative mood, ordinal numbers, days of the week, reflexive verbs, the dative, instrumental, and locative plural of nouns, adjectives, and pronoun-adjectives, and prepositions with the instrumental. (Y)

1530 Self-paced Elementary Russian III (1)

Some verbal prefixes, verbs of position, review of declension in plural, adjectival words expressing quantity, and a survey of conjugation patterns. (Y)

1531 Self-paced Elementary Russian III (1)

Verbs of motion, verbs of carrying, leading and bringing, prepositions of position and motion, short form adjectives, expressions of health, and verbs of learning, studying and teaching. (Y)

2501, 2502, 2503 Intermediate Russian I, II, III (4 each)

A continuation of MLL 1303, with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of Russian culture. (F, W, Sp) MLL 2501 is prerequisite to MLL 2502, or consent of instructor; MLL 2502 is prerequisite to MLL 2503, or consent of instructor.

2521-2532 Self-Paced Intermediate Russian (12)

The self-paced series in Intermediate Russian, divided into twelve mini-courses, allows students to complete one year of Intermediate Russian at their individual paces. Regular class attendance is not required; however, students must meet with the instructor at least two times per chapter. Generally, two chapters earn 1 unit of credit. MLL 2521-2524 correspond to MLL 2501, MLL 2525-2528 to MLL 2502, MLL 2529-2532 to MLL 2503. Students can register for up to 12 units in Self-Paced Intermediate Russian; however, those students who had previously earned credit for any of the MLL 2501-2-3 courses cannot earn credit for any of the MLL 2521-2532 series, and vice versa.

2521 Self-Paced Intermediate Russian I (1)

The hypothetical mood, verbs of placing and going, comparative and superlative adjectives, verb prefixes, selected readings.

2522 Self-Paced Intermediate Russian II (1)

Declension of numerals, fractions, dates, time, conjunctions of time, participles, selected readings.

2523 Self-Paced Intermediate Russian III (1)

Grammatical review, nouns, adjectives, verbs, aspects.

2524 Self-Paced Intermediate Russian IV (1)

Forms and use of the genitive and the accusative, direct objects of negated verbs, affirmative verbs, specific time expressions.

2525 Self-Paced Intermediate Russian V (1)

The imperative mood, aspects in the imperative, selected readings.

2526 Self-Paced Intermediate Russian VI (1)

Forms and use of the dative and the instrumental, modal expressions, verbs.

2527 Self-Paced Intermediate Russian VII (1)

Numerals, declensions of cardinals and ordinals, use of collective numerals, expressions of time, selected readings.

2528 Self-Paced Intermediate Russian VIII (1)

Forms and use of the unprefixing verbs of motion--walking, riding, running, swimming, flying, carrying and leading, combinations with verbs of motion, perfective of unprefixing verbs of motion, special perfectives with time limitations.

2529 Self-Paced Intermediate Russian IX (1)

Forms and use of the prepositional, verbs of position and positioning, prepositions and adverbs with verbs of motion and position, selected readings.

2530 Self-Paced Intermediate Russian X (1)

Prefixing verbs of motion, aspects with verbs of motion, the main prefixes in the formation of prefixing verbs of motion and distinctions in meaning.

2531 Self-Paced Intermediate Russian XI (1)

Formation and use of present and past active and passive participles, the passive voice, formation and use of short adjectives, the comparative and superlative degrees.

2532 Self-Paced Intermediate Russian XII (1)

Formations and use of imperfective and perfective verbal adverbs, the conditional mood, indefinite and negative pronouns.

3504 Advanced Russian (4)

The Russian language is the basis for the variable subject matter of this course. Subjects may deal with listening and speaking, composition and style, and translating and reading. May be repeated for credit if subject matter is different. Prerequisite: MLL 2503 or consent of instructor.

3587 Topics in Russian Literature and Culture in English (4)

An interdisciplinary course with variable subject matter which may deal with general surveys of Russian Literature and culture, comparative readings in Russian and Western European literatures, and monographic studies on various Russian authors. May be repeated for credit if subject matter is different. Fulfills the University Writing Skills requirement for students who began work on the present degree before Fall quarter, 1985. (Y)

Sign Language**1901, 1902, 1903 Elementary Sign Language I, II, III (4 each)**

A basic sequence in American Sign Language with emphasis on receptive and expressive skills. Includes intensive practice, individual evaluation, and introduction to Deaf culture. (F, W, Sp) MLL 1901 is prerequisite to MLL 1902, or consent of instructor; MLL 1902 is prerequisite to MLL 1903, or consent of instructor.

2901, 2902, 2903 Intermediate Sign Language I, II, III (4 each)

A continuation of MLL 1903, with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of Deaf culture. (F, W, Sp) MLL 2901 is prerequisite to MLL 2902, or consent of instructor; MLL 2902 is prerequisite to MLL 2903, or consent of instructor.

3902 Deaf Culture (4)

Analysis of factors that define the deaf community/culture. Compares and contrasts deaf culture with other minority groups. Readings about the deaf in the arts, sciences and humanities. Prerequisite: MLL 2903 or consent of instructor. (Alt. Y)

3903 Topics in American Sign Language (4)

Selected topics related to American Sign Language (ASL). Analysis of the structure of ASL. Conversation strategies in ASL. Cross-cultural interactions between the deaf and the hearing. Some theoretical bases of language acquisition of deaf children. Prerequisite: MLL 2903 or consent of instructor. (Alt. Y)

3904 Sign Language: Field Work (4)

Application in the community: state school, special classes in public schools, agencies serving the deaf. Comparison of variations in Sign Language due to ethnic, racial, educational, regional, and age factors.

Prerequisite: MLL 2903 or consent of instructor. (Alt. Y)

Spanish

1400 Spanish for Bilingual Students I (4)

Basic Spanish composition and reading for bilingual students with limited or no knowledge of the written language. Vocabulary building, spelling, elements of grammar, dialect variations from standard Spanish. Prerequisite: ability to understand spoken Spanish and to communicate at basic conversational level. Not repeatable for credit.

1401, 1402, 1403 Elementary Spanish I, II, III (4 each)

Introduction to speaking, understanding, reading, and writing Spanish. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1401 is prerequisite to MLL 1402, or consent of instructor; MLL 1402 is prerequisite to MLL 1403, or consent of instructor.

2400 Spanish for Bilingual Students II (4)

Designed for bilingual students already familiar with basics of Spanish writing, grammar and reading. Uses advanced elementary and intermediate level readings and writing exercises to study language structure, build vocabulary, and improve oral communication. With passing grade, may be substituted for 1403. With grade of "B-" or higher, may be substituted for 2401. Prerequisite: MLL 1400 or consent of instructor. Repeatable once with consent of instructor.

2401, 2402, 2403 Intermediate Spanish I, II, III (4 each)

A continuation of MLL 1403, with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of the cultures of the Spanish-speaking world. (F, W, Sp) MLL 2401 is prerequisite to MLL 2402, or consent of instructor; MLL 2402 is prerequisite to MLL 2403, or consent of instructor.

2410 Spanish Conversation (4)

A practical application of Spanish to present-day experiences. Spanish sounds and intonation; vocabulary building. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

3400 Introduction to Literary Analysis (4)

An introduction to literary analysis; the recognition of the terminology, genres, and rhetorical figures as well as a discussion of movements and literary styles. Prerequisite: MLL 2402. May be taken concurrently with MLL 2403. (Alt. Y)

3401 Advanced Spanish Composition and Syntax, I (4)

Written Spanish and formal grammar applied to advanced composition in the language. Prerequisite: MLL 2403 or consent of instructor. (F)

3402 Advanced Spanish Composition and Syntax, II (4)

Continuation of MLL 3401. Prerequisite: MLL 3401 or consent of instructor. (W)

3403 Advanced Spanish Composition and Syntax, III (4)

Selected authors with special attention to style. Prerequisite: MLL 3402 or consent of instructor. (Sp)

3411 Introduction to Spanish Linguistics (4)

An introduction to the principles of linguistic analysis with emphasis upon examples taken from Spanish. A brief historical survey of the development of the Spanish language. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

3412 Spanish Phonetics (4)

The fundamentals of Spanish pronunciation and intonation through the phonetic structure of the language. Attention given to each student's difficulties. Individual laboratory work. Prerequisite: MLL 3411 or consent of instructor. (Alt. Y)

Spanish Peninsular Literature

3418 Spanish Culture and Civilization (4)

A study of Spanish culture through literary examples, illustrating Spain's artistic, political, social movements and philosophical ideas. Prerequisite: MLL 2403 or consent of instructor.

4454 Spanish Medieval Literature (4)

Studies in Medieval and Pre-Renaissance Spanish literature from the 12th to the 15th Centuries. May be repeated for credit as subject matter changes. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

4455 Studies in the Golden Age of Spain (4)

Specific author, movement, genre or theme of the 16th and 17th Centuries. May be repeated for credit as subject matter changes. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

4459 Studies in Spanish Literature of the Modern Age (4)

Intensive study of selected authors, genres, or literary movements from 18th Century to early 20th Century. Neoclassicism, romanticism, naturalism, the Generation of '98. Course may be repeated as content changes. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

4460 Studies in 20th Century Spanish Literature (4)

Spanish literature after the Generacion del '98; intensive study of a single literary genre, movement theme, or author from 1927 to the present. May be repeated twice as content changes. Prerequisite: MLL 2403 or upper division standing in Spanish, or consent of instructor. (Alt. Y)

4461 Spanish Film (in English) (4)

Spanish cinematography from 1920 to the present, as related to cultural mythology and social and political problems of Spain. Films in Spanish with English subtitles. Prerequisite (applies to Spanish majors and minors only): MLL 2403 or consent of instructor.

4465 A Theme in Spanish Literature Across the Centuries (4)

Women writers; politics in literature; the Don Juan theme; female archetypes; Spanish history as literature; religious literature. May be repeated twice for credit as theme changes. Prerequisite: MLL 2403 or consent of instructor.

Spanish-American Literature

3461 Introduction to Spanish-American Literature: 1492 to 1900 (4)

Colonial literature, romanticism, realism and modernism. History and anthology selections. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

3463 Introduction to Spanish-American Literature: 1900 to the Present (4)

Prose, poetry and drama of the 20th Century. Continuation of MLL 3461. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

3495 Spanish-American Culture and Civilization (4)

A study of the culture and civilization of Spanish-America through its history, arts, and social institutions. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

4495 A Single Movement, Country or Theme: Spanish American Literature (4)

Single author, country, movement or theme in Spanish-American Literature. May be repeated for credit as

subject matter changes. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

Vietnamese

1751, 1752, 1753 Elementary Vietnamese I, II, III (4 each)

Introduction to speaking, understanding, reading, and writing Vietnamese. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1751 is prerequisite to MLL 1752, or consent of instructor; MLL 1752 is prerequisite to MLL 1753, or consent of instructor.

2751, 2752, 2753. Intermediate Vietnamese I, II, III (4 each)

A continuation of MLL 1753, with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of Vietnamese culture. (F, W, Sp) MLL 2751 is prerequisite to MLL 2752, or consent of instructor; MLL 2752 is prerequisite to MLL 2753, or consent of instructor.

* Lower division requirements will be waived for student with prior knowledge of the language. See the "Advanced Placement" section.

** May be repeated for credit if subject matter is different.

Multimedia [MM]

- [COURSE](#)

MULTIMEDIA

School of Arts, Letters, and Social Sciences; School of Business and Economics; School of Education and Allied Studies; School of Science

Office: Graduate Programs, Warren Hall 771

Phone (510) 885-3286

Professors:

Christopher L. Morgan (Math/Computer Science)

Associate Professors:

Hadi Bezhad (Management and Finance); Alexander Bordesky (CIS/Telecommunications); Bijan Gillani (School of Education: Interdisciplinary); Tung-Shing Lan (CIS/Telecommunications); James Petrillo (Art); William Thibault (Math/Computer Science)

Assistant Professor:

Anju Relan (School of Education: Interdisciplinary)

COURSE

Cal State Hayward offers primarily graduate courses in Multimedia. See the [Multimedia chapter](#) in the graduate section of this catalog.

4850 Fundamentals of Digital Media (4)

The nature of sound and light: physical basis, perception, and digital representation. Capture, conversion, storage, transport, and display of digital multimedia information. Multimedia devices and architectures. Hands-on experience using multimedia development tools. Prerequisite: CS 1020, CS 1160, T ED 5099, CIS 3270, or CIS 4275 or equivalent.

4900 Independent Study (1-4)

Music [MUS]

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- [SCHOLARSHIPS](#)
- [MAJOR REQUIREMENTS ■ B.A.](#)
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- [MUSIC OPTION: LIBERAL STUDIES](#)
- [UNDERGRADUATE COURSES](#)

MUSIC

Department of Music
School of Arts, Letters, and Social Sciences
Office: Music and Business Bldg. 1501
Phone: (510) 885-3135 FAX: (510) 885-3461

Professors:

Thomas W. Acord, James M. Bertram, Roberta Brokaw, David H. Eshelman, Frank J. La Rocca, Daniel B. Livesay, Nathan Rubin, Timothy M. Smith, David B. Stein, Ellen Wassermann, William G. Wohlmacher (Chair)

Associate Professor:

Susan K. Witt

Lecturers:

Brian K. Breeding, Jerry A. Dagg, Lawrence G. Granger, Eric E. Hansen, Janice D. Ortega, Jonathan A. Ring, Jay Rizzetto, Brenda J. Schuman-Post, Carl R. Stanley, Arthur L. Storch, William Trimble, Daniel L. Zinn

PROGRAM DESCRIPTION

The Music Department's primary goal is to provide students with outstanding musical and educational experiences. There is a great opportunity for enjoyment and musical growth offered by the well-rounded curriculum and wide diversity of performance groups.

Student performance groups are open to all qualified students and one need not be a music major to participate. There are more than twenty active ensembles including Symphonic Band, Jazz Workshop, University Singers, Orchestra, Opera Workshop, New Music Ensemble, Chorus, Oratorio Society, Percussion Ensemble, Chamber Singers, and many small vocal and instrumental ensembles.

The Department of Music offers a Bachelor of Arts degree major which is fully accredited by the National Association of Schools of Music. All music majors have the advantage of continuous applied lessons with instrumental, vocal, or composition teachers on the faculty. A music minor and a music option within the Liberal Studies major are also offered.

The Music Department occupies a large, modern, fully equipped facility, with over sixty pianos, an outstanding library, studios, practice rooms, rehearsal areas, a computer music studio, and a recital hall.

The Music curriculum is designed to serve the needs of students who have career goals in performance, composition, jazz, public school or private teaching, or graduate study, as well as those who are pursuing other fields of study and choose music as an elective.

CAREER OPPORTUNITIES

Arranger ■ Audio Specialist ■ Audiovisual Products Specialist ■ Choreographer ■ Choral Director ■ Composer ■ Concert Artist ■ Conductor ■ Disc Jockey ■ Freelance Performer ■ Instrument Maker/Technician ■ Jazz Musician ■ Lyricist ■ Music Librarian ■ Music Producer ■ Music Professor/Teacher ■ Music Therapist ■ Musical Theatre Director ■ Performing Arts Fundraiser ■ Rock Musician ■ Symphony Member

SCHOLARSHIPS

The Music Department annually awards a number of scholarships to entering and returning music majors. For more information, contact the Music Department office at (510) 885-3135.

MAJOR REQUIREMENTS - B.A.

The major consists of 84 units; the B.A. requires a total of 186 units.

I. Lower Division (45 units)

- MUS 1027, 1028, 1029* Sightsinging I, II, III (3 units)
- MUS 1031, 1032, 1033* Music Theory I, II, III (12 units)
- MUS 1210-1270** Applied Music (major performance media) (12 units)
- MUS 2031, 2032, 2033 Music Theory IV, V, VI (12 units)
- MUS 3501-05, 3509-15 Music Performance Activities (6 units)

II. Upper Division (39 units)

- MUS 3034 Music Theory VII (4 units)
- One of:* Music 3051, 3061, 3062 Form and Analysis; Counterpoint I, II (4 units)
- MUS 3155, 3156, 3157 Music Literature and Analysis I, II, III (9 units)
- MUS 3210-3270** Applied Music (major performance media) (12 units)
- MUS 3501-05, 3509-15 Music Performance Activities (6 units)
- MUS 3506 Chamber Ensembles. Four units to be taken in four different quarters (4 units)

Special Requirements of the Department of Music

I. Applied Music

- A. Each Music major will declare a principal medium (keyboard, voice, orchestral or band instrument, guitar, composition) with the department and perform an audition prior to his or her first quarter registration. The audition will be heard by a committee appointed by the chair of the department. This committee will evaluate the student's applied music level and will determine probationary conditions, if any, under which a student may be admitted as a music major.

Majors entering with composition as their applied area are required to be proficient in an instrumental

medium. Since composition instruction does not normally begin before the sophomore year, an entering freshman will audition and enroll for instrumental instruction as described above; or, with permission of a composition instructor, may enroll without audition for Applied Piano.

- B. Probationary Standing. A student who is admitted on probation will be allowed to enroll for one and no more than three quarters of applied instruction. To continue as a music major, the student must re-audition at the completion of this study and satisfactorily remove the conditions of probation.
- C. Each music major must continuously study in his or her principal medium until he or she completes the level 40 requirements outlined in the Handbook for Undergraduate Music Majors.
- D. Applied instruction may not exceed 12 units in lower division and 12 units in upper division without permission from the department chair.
- E. In order to receive applied instruction, an undergraduate student must be enrolled for a minimum of six units, two of which must be in any music course other than performing ensembles and applied music, and must be making satisfactory progress toward the degree.

II. Recitals

- A. Music majors are to appear each year in regularly scheduled student recitals as determined by the department.
- B. Specific recital performance requirements are outlined in the Handbook for Undergraduate Music Majors.
- C. No recitals may be given during the last week of classes or during the final examination period.
- D. Attendance at six recitals and concerts each quarter is required of all music majors. Recital attendance cards may be obtained in the Music Department office.

III. Performance Groups

- A. Each music major is required to be in one major music performance activity each quarter in which he or she plays his or her principal instrument.
- B. The 4 units of chamber ensemble required for the Music major should be taken in 4 different quarters.

IV. Proficiency Tests

- A. Proficiency tests may be required in any or all aspects of music performance skills, theory, and history and literature as a basis for determining placement in sequence courses.
- B. An upper division transfer student who has completed most of his or her music major may be required to take certain courses in theory, history and literature, and performance.
- C. All new music majors (except keyboard majors) are required to take a piano proficiency exam. If the exam is not passed, the student must enroll in the appropriate level of class piano instruction until the proficiency exam or MUS 2313 is passed.
- D. All keyboard majors are required to pass a proficiency exam in sight-reading, keyboard harmony and open-score reading or pass MUS 2314, 2315, 2316.

V. Further courses recommended

Study of a foreign language is recommended for non-credential candidates.

Sample Schedule

Recommended sequence of music courses for four-year baccalaureate program:

First Year

MUS 1031 (4)	MUS 1032 (4)	MUS 1033 (4)
MUS 1027 (1)	MUS 1028 (1)	MUS 1029 (1)
MUS 1210-70 (2)	MUS 1210-70 (2)	MUS 1210-70 (2)
MUS 3500 (1)	MUS 3500 (1)	MUS 3500 (1)

Second Year

MUS 2031 (4)	MUS 2032 (4)	MUS 2033 (4)
MUS 1210-70 (2)	MUS 1210-70 (2)	MUS 1210-70 (2)
MUS 3500 (1)	MUS 3500 (1)	MUS 3500 (1)

Third Year

MUS 3034 (4)	One of MUS 3051, 3061, 3062 (4)	MUS 3210-3270 (2) <u>***</u>
MUS 3210-70 (2)	MUS 3210-70 (2)	MUS 3500 (1)
MUS 3500 (1)	MUS 3500 (1)	MUS 3506 (1) <u>****</u>
MUS 3506 (1) <u>****</u>	MUS 3506 (1) <u>****</u>	

Fourth Year

MUS 3155 (3)	MUS 3156 (3)	MUS 3157 (3)
MUS 3210-70 (2)	MUS 3210-70 (2)	MUS 3210-70 (2)
MUS 3500 (1)	MUS 3500 (1)	MUS 3500 (1)
MUS 3506 (1) <u>****</u>		

Major Advising

Since requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements.

MINOR REQUIREMENTS

The minor consists of 36 units.

Note: To be admitted to the minor program, the student must demonstrate vocal or instrumental performing ability. Applied instruction will be limited to three quarters of study.

Required courses:

- MUS 1027 Sightsinging I (1)
- MUS 1028 Sightsinging II (1)
- MUS 1029 Sightsinging III (1)
- MUS 1031 Music Theory I (4)
- MUS 1032 Music Theory II (4)
- MUS 1033 Music Theory III (4)
- MUS 1210-70_± Applied Instruction for 3 quarters (6)
- MUS 3500-50_{±±} Performance Activities for 4 quarters (4)
- Class piano instruction taken from: MUS 1311-13, 1314-16, 2311-13, 2314-16_± (3)
- Upper division electives in music selected in consultation with departmental advisor (8 units)

MUSIC OPTION: LIBERAL STUDIES

Areas I, V.A, and V.B. (10-12 units)

Either MUS 1000 Survey of Music Literature (4)

or MUS 1008 Music Theory for Non-Music Majors I (4)

At least two of the following courses: (6-8)

MUS 1005 Music of Our Time (4)

MUS 1311 and MUS 1312 Elementary Class Piano I and II (2)

Either MUS 1000 Survey of Music Literature (4) or MUS 1008 Music Theory for Non-Music Majors I (4) (if not taken above)

MUS 1015 Basic Musicianship Through Guitar for Non-Music Majors (4)

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

Twenty-four units from the following courses:

MUS 1003 Music and Dance (4)

MUS 1007 History of Jazz (4)

MUS 1009 Music Theory for Non-Music Majors II (4)

MUS 1016 Basic Musicianship Through Guitar for Non-Music Majors II (4)

MUS 1313 Elementary Class Piano III (1)

MUS 2321 Basic Voice (1)

MUS 2322 Basic Voice (1)

MUS 3002 What to Listen for in Music (4)

MUS 3501-3515 Music Performance Activities (4)

Any course in Basic Orchestral Instruments, or, with department approval, in the Applied Music Series (4)

UNDERGRADUATE COURSES

Courses for Non-Music Majors

1000 Survey of Music Literature (4)

A basic course in music understanding designed for the person without formal musical training. The elements, styles, media and social and historical significance of Western music. Field trips may be required. (F, W, Sp)

1003 Music and Dance (4)

A general study of major ballet and modern dance performances, performers and musicians. Intended to increase the awareness and appreciation of the relationship between these two major art forms. Course includes viewing selected dance tapes and optional attendance at live performances. Previous musical training is not necessary. Field trips may be required.

1004 Introduction to World Music (4)

Survey of the music and artistic media of non-European cultures including Polynesia, Australia, Africa, Asia, Middle East and native North America. Development of musical understanding through exploration of basic universal elements of music, dance, ceremony and common human values. Previous musical training not necessary. Field trips may be required. Cross-listed with [ANTH 1004](#).

1005 Music of Our Time (4)

Survey of modern forms and styles and of the cultural and social influences on music in the 20th Century. Popular styles such as Cajun, Blues, Reggae, Salsa, New Age, and Alternative, as well as related classical forms from the Western musical tradition. Previous musical training not necessary. Field trips may be required. (Y)

1006 History of Rock and Roll (4)

A survey of important performers and styles from the 1950's to the present, and of the music's African, rhythm and blues, and classical music sources. Previous musical training not necessary. (F, W, Sp)

1007 History of Jazz (4)

Periods, major performers and composers, trends, influences, stylistic features and cultural significance. Field trips may be required. (F, W, Sp)

1008 Music Theory for Non-Music Majors I (4)

Fundamentals of music notation. Major and minor scale and chord formations. Emphasis on practical musicianship through rhythmic exercises and reading of songs on simple melody and rhythm instruments. Recommended for non-music majors in Liberal Studies and Multiple Subject Credential programs. Three hrs. lect., 2 hrs. act. (F, W, Sp)

1009 Music Theory for Non-Music Majors II (4)

Continuation of MUS 1008 with emphasis on developing individual skills through musical creativity. Recommended for non-music majors or minors who follow the Multiple Subject Credential program. Prerequisite: MUS 1008 or consent of instructor. Three hrs. lect., 2 hrs. act.

1015 Basic Musicianship Through Guitar for Non-Music Majors I (4)

Development of music reading and understanding through study of guitar. Recommended for non-music majors pursuing a credential program. Students provide own guitar. Three hrs. lect., 2 hrs. act. (F, W, Sp)

1016 Basic Musicianship Through Guitar for Non-Music Majors II (4)

Continuation of MUS 1015, Guitar I. Development of musical understanding and music reading ability through the study of the guitar. Recommended for non-music majors who follow the Multiple Subject Credential program. Prerequisite: MUS 1015 or consent of instructor. Three hrs. lect., 2 hrs. act.

1311, 1312, 1313 Elementary Class Piano I, II, III (1 each)

A graded sequence of materials designed to develop keyboard facility through a study of technique, repertoire, sight-reading, and harmonization. Recommended for classroom teachers. Designed for students with little or no background. Two hrs. act.

3000 Fundamentals of Music Theory and Composition (4)

Fundamentals of music with emphasis on reading and writing. Notation, meter, rhythm, scales, intervals, chords, terminology, and beginning principles of composition and harmonization. Previous musical training not necessary.

3002 What to Listen for in Music (4)

Development of a greater appreciation and enjoyment of music through study of the musical content of selected works. Study of the elements of music to develop critical listening skills applicable to all styles of music. Previous musical training not necessary. Field trips may be required.(Y)

Music Theory

1027, 1028, 1029 Sightsinging I, II, III (1 each)

Development of music reading skills applicable to all instrumental and vocal performance media. Dictation, analysis and singing of melodies and melodic exercises; study and performance of basic rhythmic materials. To be taken concurrently with Theory I, II, III. Prerequisite: Music major or minor, or consent of instructor. Two hrs. act. (F, W, Sp)

1031, 1032, 1033 Music Theory I, II, III (4 each)

The integrated study of tonal harmony, part-writing, analysis and ear-training.

- I. Music fundamentals. Preliminary work with triads, seventh chords and part-writing procedures. Co-requisite: MUS 1027. (F)
- II. Continuation of MUS 1031. Intensive work with triads and dominant seventh chords. Co-requisite: MUS 1028. Prerequisites: MUS 1027, 1031. (W)
- III. Continuation of MUS 1032. Introduction to tonicization and modulation. Co-requisite: MUS 1029. Prerequisites: MUS 1028, 1032. (Sp)

2027, 2028, 2029. Sightsinging IV, V, VI (1 each)

Continuation of MUS 1029. Prerequisite: MUS 1029 or consent of instructor. Two hrs. act.

2031, 2032, 2033 Music Theory IV, V, VI (4 each)

- IV. Continuation of MUS 1033. Diatonic sequences, rhythmic and melodic figuration. Prerequisites: MUS 1029, 1033. (F)
- V. Continuation of MUS 2031. Advanced tonal procedures, secondary dominants, diatonic modulation. Prerequisite: MUS 2031. (W)
- VI. Continuation of MUS 2032. Chromaticism. Prerequisite: MUS 2032. (Sp)

2041 Jazz Theory and Improvisation (3)

Integrated approach to jazz theory, repertoire, and improvisation. Improvisation, theoretical studies and analytical techniques. Theoretical materials will influence and shape the improvisational skills developed in small performing ensembles. May be repeated once for credit. Prerequisite: MUS 1033 or consent of instructor. Two hrs. lect., 2 hrs. act. (Y)

3034 Music Theory VII (4)

Twentieth Century music up to the present; extension of tonality; non-tonal music. Analysis and compositional exercises. Prerequisite: MUS 2033 or equivalent. (F)

3051 Form and Analysis (4)

The study and analysis of music written in traditional forms. Prerequisite: MUS 2033. (Y)

3061, 3062 Counterpoint I, II (4 each)

- I. The writing of counterpoint modeled on the style of Palestrina. Additional work modeled on other 16th century composers may be introduced at the discretion of the instructor. Prerequisite: MUS 3034. (Alt. Y)
- II. The writing of counterpoint modeled on the style of J. S. Bach. Additional work modeled on other 17th and 18th century composers may be introduced at the discretion of the instructor. Prerequisite: MUS 3034. (Alt. Y)

3071 Jazz Arranging (3)

Technical features of various jazz styles; arranging for various combinations of instruments. Prerequisite: MUS 2033 or consent of instructor.

3081 Seminar in Electronic Music (4)

Systematic introduction to understanding and use of equipment in the Electronic Music Studio. Survey of history and literature in the field. Projects in recording and composition. Prerequisite: MUS 3034 or consent of instructor.

3082 Seminar in Computer Music (3)

The theory and practice of computer applications in music. Production of specific computer-music projects. May be repeated for credit. Prerequisite: MUS 3081 or consent of instructor. Two hrs. lect., 2 hrs. act. (Y)

4027 Dictation and Sightsinging (4)

Supplementary work in these skills, individualized as far as possible, intended to complement and extend work done in the required theory courses. May be repeated once for credit. Prerequisite: Theory III or consent of instructor.

4054 Instrumentation (4)

Study of the instruments of the orchestra and band; scoring for small ensembles; survey of scoring for school orchestra, band, and chorus. Prerequisite: MUS 3034.

Music History and Literature

3155, 3156, 3157 Music Literature and Analysis I, II, III (3 each)

Emphasis given to style analysis; the relationship of music to the social and cultural background of each epoch. Prerequisite for each: MUS 2033 or consent of instructor.

- I. Music from the beginnings of Western Civilization through Medieval and Renaissance times. (F)
- II. Music of the Baroque and Classical periods. (W)
- III. Music of the Romantic and Contemporary periods. (Sp)

4110 Seminar in Music Literature (4)

Research, interpretation, performance problems in selected literature for various media. Specific topic will be announced prior to the quarter seminar is offered. May be repeated twice for credit. Prerequisites: MUS 3157 and consent of instructor.

4120 Seminar in Music History (4)

Research and discussion in a selected period of music history. Specific period and topic will be announced prior to the quarter seminar is offered. May be repeated twice for credit. Prerequisites: MUS 3157 and consent of instructor.

Applied Music

1210-1270 Applied Music (2 each)

Individual advanced instruction for music majors and minors. May be repeated for credit up to a maximum of 12 units. (A)

1210 Piano	1240	Flute
1211 Organ	1241	Oboe
1212 Harpsichord	1242	Clarinet
1220 Voice	1243	Bassoon
1230 Violin	1244	Saxophone
1231 Viola	1250	Trumpet
1232 Cello	1251	French Horn
1233 String Bass	1252	Trombone
1234 Harp	1253	Baritone
1235 Guitar	1254	Tuba
	1260	Percussion

1270 Composition --

Prerequisites: (1) reasonable proficiency in at least one other area of applied music; (2) knowledge of music theory equivalent to first year theory; and (3) consent of instructor.

1311, 1312, 1313 Elementary Class Piano I, II, III (1 each)

A graded sequence of materials designed to develop keyboard facility through a study of technique, repertoire, sight-reading, and harmonization. Recommended for classroom teachers. Designed for students with little or no

background. Two hrs. act.

1314, 1315, 1316 Basic Piano Class I, II, III (1 each)

Group instruction in piano for music majors not concentrating in piano. Prerequisites: MUS 1314 is prerequisite to MUS 1315; MUS 1315 is prerequisite to 1316. Two hrs. act. (F, W, Sp)

2311, 2312, 2313 Intermediate Class Piano I, II, III (1 each)

Continuation of MUS 1316. MUS 2311: Major mode formulae, prerequisites: MUS 1316 and MUS 1033 or equivalents. MUS 2312: Minor mode formulae; prerequisite: MUS 2311 or consent of instructor. MUS 2313: open score reading; prerequisite: MUS 2312 or consent of instructor. Two hrs. act. (F, W, Sp)

2314 Keyboard Sight-Reading (1)

Sight-reading technique as applied to keyboard literature. Prerequisite: Music major. Keyboard concentration. Two hrs. act. (F)

2315 Keyboard Harmony (1)

Harmonic formulae in all keys, sequences, transpositions and simple figured bass; sight harmonization of melodies and bass lines. Designed for keyboard concentrators at sophomore level or above. Two hrs. act. (W)

2316 Open Score Reading (1)

Principles of reading and transcribing open scores at the keyboard. Examples chosen from choral, orchestral and ensemble literature. Designed for keyboard concentrators at sophomore level or above. Two hrs. act. (Sp)

2317 Jazz Piano and Keyboard Improvisation (1)

Repertoire, voicings, chords, and guidelines for improvisation in the contemporary styles of the jazz pianist. May be repeated once for credit. Prerequisites: basic knowledge of notation, keyboard performance, and jazz harmony. Two hrs. act.

3210-3270 Applied Music (2 each)

Individual advanced instruction for music majors. May be repeated for credit. (A)

3210 Piano	3240	Flute
3211 Organ	3241	Oboe
3212 Harpsichord	3242	Clarinet
3220 Voice	3243	Bassoon
3230 Violin	3244	Saxophone
3231 Viola	3250	Trumpet
3232 Cello	3251	French Horn
3233 String Bass	3252	Trombone
3234 Harp	3253	Baritone
3235 Guitar	3254	Tuba
	3260	Percussion

3270 Composition --

Prerequisites: (1) reasonable proficiency in at least one other area of applied music; (2) knowledge of music theory equivalent to first year theory; and (3) consent of instructor.

Music Performance Activities

2400 Stage and Acting Basics for Singers (1)

Techniques of movement while singing and during musical interludes. Development of operatic character types through movement. Study of music as dialogue, pacing and timing of lines, acting out of recitatives. May be repeated for credit. Prerequisite: concurrent enrollment in MUS 3505 or consent of instructor. Two hrs. act. (Y)

3450 Alexander Technique (3)

Simple, guided movements based on the Alexander Technique, a practical method for achieving ease and freedom of movement, balance, support, flexibility and coordination. Excellent tool for musicians, singers, actors, and dancers. Open to non-majors and majors. Two hrs. lect., 2 hrs. act.

3500-3550 Music Performance Activities (1 each)

Music activities are open to all qualified students. They may be repeated for credit. Music majors are required to enroll in one major performance group each quarter. Field trips may be required. (F, W, Sp)

01

University Chorus.

02

University Orchestra.

04

University Singers.

05

Opera Workshop.

06

Chamber Ensemble. Two hrs. act.

09

Piano Accompaniment. Two hrs. act.

10

Jazz Workshop.

11

Symphonic Band.

15

University Oratorio Society.

4210 Vocal Diction and Literature Practicum (2)

Diction and performance practice of representative vocal literature in a selected language. May be repeated for credit as the language offerings change: English, Italian, French, German, others. Prerequisite: upper division standing in Music, or consent of instructor. (Y)

Music Education

2321, 2322, 2323 Basic Voice (1 each)

Class instruction in fundamentals of singing. May be repeated for credit. MUS 2321 prerequisite for 2322. MUS 2322 prerequisite for MUS 2323. Two hrs. act. (Y)

2331-32, 2341-43, 2355, 2361 Basic Orchestral Instruments (1 each)

Instruction in the fundamentals of playing orchestral instruments; methods and materials for use in elementary and secondary schools. Two hours activity.

2331

Violin and Viola (F)

2332

Cello and Bass (W)

2341

Clarinet (F)

2342

Double Reeds -- Prerequisite: 2341 (Sp)

2343

Flute and Saxophone -- Prerequisite: 2341 (W)

2355

Basic Brass

Fundamentals of playing brass orchestral instruments (trumpet, French horn, trombone, baritone, tuba) with attention to elementary and secondary school teaching techniques and materials. Two instruments will be studied each quarter. Two hours activity. May be repeated once for credit. Prerequisite: Music major; others by consent of instructor. (Y)

2361

Percussion (Y)

2371 Basic Guitar (1)

Fundamentals of playing guitar with emphasis on developing competencies sufficient to employ the instrument as a teaching tool. Prerequisite: Music major or consent of instructor. Two hours activity. (Y)

2500 Chamber Music in the Public Schools (2)

Rehearsals include coaching in the selection and preparation of literature that demonstrates musical concepts to elementary school children. Performances in local elementary schools will be scheduled during regular class meeting time. Open to music majors by audition. May be repeated for credit. (Y)

3370 Basic Conducting (3)

Basic techniques of conducting including simple, compound and asymmetrical meters, expression and interpretation through observation and laboratory experience. Prerequisite: upper division standing or consent of instructor. (F)

3380 Choral Conducting (3)

Special techniques of choral conducting including vocal and score reading and analysis, interpretation, and rehearsal through observation and laboratory experience. Prerequisite: upper division standing or consent of instructor; MUS 3370 or equivalent must precede MUS 3380. (Y)

3390 Instrumental Conducting (3)

Special techniques of instrumental conducting including score reading and analysis, interpretation, rehearsal through observation and laboratory experience. Prerequisites: upper division standing or consent of instructor. MUS 3370 or equivalent must precede MUS 3390. (Y)

4435 Seminar in Public School Instrumental Teaching Techniques (3)

Provides opportunity for students intending to become teachers to develop rehearsal techniques, organizational procedures related to public school band and orchestra programs; to become familiar with public school teaching materials; to further develop conducting techniques; and to improve secondary instruments skills. Prerequisites: Basic Conducting; two quarters each, basic strings, woodwinds, brass, one of percussion; others by consent of instructor. Field trips may be required. (Alt. Y)

4440 Seminar in Public School Choral Teaching Techniques (3)

Development of rehearsal techniques and organizational procedures related to choirs and vocal ensembles in the public schools. Teaching materials and appropriate literature from various stylistic periods. Prerequisites: MUS 3370 and MUS 3380, or consent of instructor. Field trips may be required. (Alt. Y)

4445 Seminar in Elementary Classroom Music Teaching Techniques (3)

Development of classroom management and teaching techniques appropriate for elementary general music and choral classes. Emphasis on the Kodaly method and related instructional materials. Prerequisite: upper division standing or consent of instructor. Field trips may be required. **4501, 4502 Seminar in the Art and Science of Vocal Pedagogy I, II (3 each)**

- I. In-depth study of the anatomy and physiology of the vocal mechanism. Introduction to various approaches to effective vocal teaching through scientific and non-scientific writings. Beginning of application of approaches and theories. Prerequisite: upper division standing in Music or consent of instructor. (Alt. Y)
- II. Practical application of principles and theories presented in level I. Survey of pedagogical approaches; hands-on experience in diagnosis and correction of vocal problems; principles of effective ensemble

singing. Intended for singers, teaching professionals, and aspiring teachers of choral and solo singing.
Prerequisite: MUS 4501 or consent of instructor. (Alt. Y)

Miscellaneous Course

4900 Independent Study (1-4)

* MUS 1027-29 and 1031-33 to be taken concurrently.

** Majors entering with composition as their applied area are required to be proficient in an instrumental medium. Because composition instruction does not normally begin before the sophomore year, an entering freshman will audition and enroll for instrumental instruction as described in section I.A.; or, with permission of a composition instructor, may enroll without audition for Applied Piano.

*** See "Special Requirements of the Department of Music," Section I.E.

**** The chamber ensemble requirement may be fulfilled during any four quarters.

+ Substitutions for this requirement may be made, with the approval of the Departmental Minor advisor.

++ Upper division substitutions may be made for this requirement, with the approval of the Departmental Minor advisor.

Nursing [NURS]

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- [COURSES](#)

NURSING

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Professors:

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Associate Professors:

Theresa Gorman, Pamela Parlocha, Charlotte Perry

Assistant Professor:

Margot Solomon

Lecturer:

Pamela Reuling

PROGRAM DESCRIPTION

The Department of Nursing and Health Sciences offers an undergraduate program which leads to the Bachelor of Science degree with a major in Nursing. The program is designed to prepare a nurse generalist: one who is able to apply nursing knowledge and provide culturally sensitive care to clients from a range of socioeconomic backgrounds. The curriculum integrates general and professional education to prepare a professional nurse who is also a well-educated citizen. Graduates of the program have the requisite knowledge and skills to pursue graduate study in nursing.

The curriculum consists of one year of prerequisite requirements and eight quarters of nursing courses. However, nine quarters are frequently needed to complete all nursing courses because of clinical space limitations. The prerequisite courses may be completed at Cal State Hayward or by taking equivalent courses at another college or university. Nursing courses have concomitant laboratory activities both on campus and in local hospitals, community health agencies, child care centers, and retirement communities. Students are responsible for providing their own transportation to clinical facilities. Expenses for clinical courses include the purchase of uniforms, stethoscopes, malpractice insurance, personal health insurance, laboratory equipment, course syllabi, and so forth.

The program is accredited by the State of California Board of Registered Nursing and by the National League for Nursing. Upon completion of the nursing sequence, the student is qualified to take the National Council Licensure

Examination (NCLEX-RN) and apply for the California Public Health Nursing Certificate.

CAREER OPPORTUNITIES

Registered Nursing in: (1) Hospitals, e.g. Medical, Surgical, Emergency Room, Operating Room, Pediatrics, Obstetrics, Mental Health, Critical Care, Oncology, Rehabilitation; (2) Community Health Agencies; (3) Home Health Services; (4) Extended Care Facilities; (5) Physician's Office; (6) Clinics & Industry

PREPARATION

Students must take eight specific prerequisite courses to be eligible for admission to the nursing program. Courses must be completed by the end of Spring quarter for the student to be eligible for admission to the nursing program in the Fall quarter.

Students who plan to use transfer courses to satisfy prerequisite requirements must have equivalencies determined by the Cal State, Hayward Department of Nursing and Health Sciences.

ADMISSION

Because Nursing has been designated as an impacted program by the Board of Trustees, a special admission procedure has been instituted to assure that all students have an opportunity to be considered for admission to the Nursing major for Fall quarter. General Information on the program, admission criteria and application procedures may be obtained from the Department of Nursing. To be considered for admission to the Clinical Nursing courses, students must complete two application forms: 1) The "CSU Application for Admission" and, 2) the "Nursing Supplemental Application." These forms must be filed in November for admission in the Fall quarter of the following academic year. To be eligible for admission, a student must complete the following prerequisite courses to NURS 2012-13:

- A. With a minimum of 2.4 GPA ("D" grades are not acceptable):
 - BIOL 2010 Human Physiology and Anatomy I (5)
 - BIOL 2020 Human Physiology and Anatomy II (5)
 - BIOL 3005 Introduction to Microbiology (5)

- B. With a "C" or better:
 - CHEM 1601 Basic Chemistry for Health Sciences (4)
 - CHEM 1602 Basic Chemistry for Health Sciences (4)
 - ENGL 1001 Expository Writing I (4)
 - and two courses from*
 - PSYC 1000 General Psychology (5)
 - SOC 1000 Introduction to Sociology (4)
 - ANTH 1000 Introduction to Anthropology (4) or ANTH 2300 Cultural Anthropology (4)

Licensed Vocational Nurses, Medical Corps-persons, and other health-care personnel wishing to gain admission to more advanced clinical nursing courses must seek advisement from the Department of Nursing prior to applying to the program. Challenge procedures for the clinical nursing courses are available upon request.

MAJOR REQUIREMENTS - B.S.

The major consists of 137-139 units; the B.S. degree requires a total of 186 units.

I. Prerequisite Courses (35-36 units) for NURS 2012, 2013 (2.4 gpa minimum)

BIOL 2010, 2020, 3005 (15)

CHEM 1601, 1602 (8)

ENGL 1001 (4)

Social Science (2 courses)

ANTH 1000 or 2300, PSYC 1000, SOC 1000 (8-9)

II. Other Non-Clinical Courses (29-30 units):

BIOL 4160 (4)

HIST/NURS 4710 (4)

NURS 3110, 3401 (5)

SPCH 1004 (4)

Group Communication (1 course)

HDEV 4880, MGMT 3614, PSYC 3500, PSYC 3520, SPCH 3510 (4)

Human Growth & Development

HDEV 3800 or PSYC 4420 (4)

Statistics (1 course)

STAT 1000 or STAT 1100 (4-5)

III. Nursing Clinical Courses (73 units)

Level I NURS 2012, 2013, 2305, 2306, 2307, 2308 (24)

Level II NURS 3201, 3203, 3204, 3206, 3208, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413 (27)

Level III NURS 4205, 4207, 4208, 4301, 4302 (22)

RN Advanced Placement Track

The Registered Nurse Advanced Placement Track is a 5 quarter program, although it may take 6 quarters to complete the program due to clinical space limitations. The first three quarters focus on selected theories and concepts taught on Levels I and II of the generic nursing program. Students join the generic program at the senior level for Nursing Leadership, Community Health, and Preceptorship.

Eligibility

To be eligible for the RN Advanced Placement Track, a student must:

1. Have a valid California RN License.
2. Be a graduate of an ADN or Diploma program (within the last 5 years); or have recent nursing practice within the United States.
3. Pass each of the three NLN Profile II Mobility Exams.

Application

Individuals interested in the Advanced Placement Track must complete the same prerequisites and follow the same application procedures as those described for the Clinical Nursing coursework.

Requirements

The RN Advanced Placement Track consists of 101-103 units; the B.S. degree requires a total of 186 units.

I. Prerequisite Courses (35-36 units) for NURS 3505-06 (2.4 GPA minimum)

BIOL 2010, 2020, 3005 (15)

CHEM 1601, 1602 (8)

ENGL 1001 (4)

Social Science (2 courses)

ANTH 1000 or 2300, PSYC 1000, SOC 1000 (8-9)

II. *Other Non-Clinical Courses (29-30 units)*

BIOL 4160 (4)

HIST/NURS 4710 (4)

NURS 3110* (3)

NURS 3401* (2)

SPCH 1004 (4)

Human Growth and Development (1 course)

HDEV 3800, PSYC 4420 (4)

Group Communication (1 course)

HDEV 4880, MGMT 3614, PSYC 3500, PSYC 3520, SPCH 3510 (4)

Statistics (1 course)

STAT 1000 or 1100 (4-5)

III. *Clinical Nursing courses (37 units)*

Bridge Year: NURS 3503, 3505, 3507, 3509, (15)

Level III: NURS 4205, 4207, 4208, 4301-4302 (22)

Clinical Course Progression Policies

I. Clinical Course Progression

- A. Clinical Nursing courses must be successfully completed or challenged in the proper sequence.
- B. In order to progress within the Nursing Major the student must:
 1. earn a grade of "C" or better or "CR" in courses with a NURS prefix,
 2. earn a grade of "C-" or better in BIOL 4160; before progressing to Level 2 clinical courses.
- C. A student may not continue in a clinical practice course and will receive an "NC" grade after notification of clinically unsafe behavior(s).
- D. Students who achieve two failing grades ("NC", "D", "F") in any of the nursing prefix courses are ineligible to continue in the major.
- E. Student appeals are to be made in writing to the Executive Committee of the Department of Nursing and Health Sciences one week following a second failure in a nursing prefix course.

II. Reentering Clinical Nursing Sequence

1. A written request for readmission to the clinical nursing sequence must be submitted to the chair of the Department of Nursing and Health Sciences. This should be done no later than the end of the Add Period of the quarter preceding the one the student wishes to reenter.
2. A student who withdraws or interrupts the clinical nursing sequence for physical and/or emotional reasons must present evidence (e.g., doctor's letter) that his/her current health status is satisfactory and that (s)he is physically and/or emotionally able to care for patients in any clinical setting. The final decision for reentry into the clinical nursing sequence will rest with the Executive Committee of the Department of Nursing and Health Sciences.
3. A student is not guaranteed that a request to reenter the clinical nursing sequence will be granted. This will depend on availability of clinical nursing practice space. First priority for reentering will be given to students who withdrew or dropped the course in good standing. The student must meet all requirements in effect upon return to clinical nursing courses.

Major Advising

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

COURSES

2012 Nursing Theory I (4)

Concepts and principles useful in planning nursing care through the nursing process. Open only to students in the Nursing Major. Prerequisites: department permission; BIOL 2010, 2020, 3005 with a GPA of 2.4; ENGL 1001, CHEM 1601, 1602 and two courses from: PSYC 1000, SOC 1000, ANTH 1000 or 2300 with a grade of "C" or better; concurrent enrollment in NURS 2013. (F)

2013 Nursing Theory I Laboratory (4)

Concurrent enrollment in NURS 2012. Must be taken Credit/No Credit. Department permission required. Twelve hrs. lab. (F)

2305 Common Problems in Ambulatory Clients (4)

Introduces the nursing process with well individuals in various stages of the life cycle. Emphasis is on common health problems seen in ambulatory care settings. Prerequisites: NURS 2012 and NURS 2013; department permission; concurrent enrollment in NURS 2306. (W)

2306 Clinical Nursing Practice I (4)

Concurrent enrollment in Nurs. 2305. Open only to students in the Nursing Major. Must be taken Credit/No Credit. Department permission required. Twelve hrs. lab. (W)

2307 Common Problems in Hospitalized Adults (4)

Focuses on the continued promotion of adaptation through the nursing process. Emphasis is on common health problems seen in hospitalized adults. Prerequisites: NURS 2305 and 2306; department permission; concurrent enrollment in NURS 2308.

2308 Clinical Nursing Practice II (4)

Concurrent enrollment in NURS 2307. Open only to students in the Nursing Major. Department permission required. Must be taken Credit/No Credit. Twelve hrs. lab. (Sp)

3110 Pharmacology (3)

Introduction to drugs and therapeutics. Prerequisites: BIOL 2020, 3005. (W)

3201 Nursing Theory II (4)

Introduces the nursing process with acutely ill hospitalized patients in various stages of the life cycle. Concepts and theories addressed include role, social action, adaptation, communication, teaching/learning, systems and research. Prerequisites: NURS. 2307, 2308 and 3110; BIOL 4160; department permission. (F)

3203 Research Synthesis (2)

Applies the research process in critiquing nursing research and using the findings in clinical practice. The concepts of quantitative and qualitative research. Department permission required. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; CHEM 1602

3204 Nursing Skills Laboratory I (1)

Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. Must be taken Credit/No Credit. Three

hrs. lab. (F)

3206 Nursing Skills Laboratory II (1)

Prerequisites: NURS 3204; department permission. Must be taken Credit/No Credit. Three hrs. lab. (W)

3208 Nursing Skills Laboratory III (1)

Prerequisites: NURS 3206; department permission. Must be taken Credit/No Credit. Three hrs. lab. (Sp)

3401 Legal Responsibilities of Health Care Providers (2)

Overview of American legislative and judicial system and its effect on consumer health care. The professional nurse is viewed as an advocate of a client in his consumption of health care. Prerequisite: NURS 3201; department permission. (W)

3402 Principles of Perioperative Nursing (1)

Theoretical basis of the physiological and psychosocial effects and stressors that patient/clients confront before surgery (preop), during the actual surgical experience (intraop) and after surgery (postop) in the PACU (post-anesthesia care unit) and in an acute care hospitalized setting. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. (F, W, Sp)

3403 Perioperative Nursing Practicum (2)

Concurrent enrollment in NURS 3402 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)

3404 Principles of Perinatal Nursing (1)

Application of the theories and concepts of the physiological and psychosocial aspects related to the nursing care of the childbearing family at risk during the antepartum, intrapartum and postpartum periods. Emphasis is placed on adaptation and restoration of wellness. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. (F, W, Sp)

3405 Perinatal Nursing Practicum (2)

Concurrent enrollment in NURS 3404 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)

3406 Principles of Psychiatric/Mental Health Nursing (1)

Theories of human behavior and the purposeful use of self are combined to provide a theoretical framework for the holistic care of mentally ill clients and their families. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. (F, W, Sp)

3407 Psychiatric/Mental Health Nursing Practicum (2)

Concurrent enrollment in NURS 3406 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)

3408 Principles of Pediatric Nursing (1)

The physiological and psychological nursing care of children during active illness episodes. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. (F, W, Sp)

3409 Pediatric Nursing Practicum (2)

Concurrent enrollment in NURS 3408 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)

3410 Principles of Medical Nursing (1)

The nursing process applied to the adult patient and his/her family experiencing multipathophysiological processes that are treated with medical interventions. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160. Department permission. (F, W, Sp)

3411 Medical Nursing Practicum (2)

Concurrent enrollment in Nurs. 3410 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)

3412 Principles of Geriatric Nursing (1)

Theories, demographics and adjustments related to aging. Geriatric physical assessment and interventions with focus on musculoskeletal, genitourinary, neurologic and sensory systems. Prerequisites: NURS 2307, 2308, and 3110; BIOL 4160; department permission. (F, W, Sp)

3413 Geriatric Nursing Practicum (2)

Concurrent enrollment in Nurs. 3412 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)

3503 Physical Assessment (3)

Physical examination of adults through lectures, demonstrations, media, and clinical sessions in which students practice physical examination skills on each other. Physical examination skills are subsequently demonstrated by each student for a faculty preceptor. Department permission required.

3505 Advanced Principles I (4)

Advanced concepts of wellness, adaption, change and systems. Roy Adaptation Model as applied to the nursing process. Open only to R.N. students in the Nursing Major. Department permission required. Prerequisites: BIOL 2010, 2020, 3005 with a GPA of 2.4; ENGL 1001, CHEM 1601, 1602 and two courses from: PSYC 1000, SOC 1000, ANTH 1000 or 2300 with a grade of "C" or better; current California R.N. Licensure. (F)

3507 Advanced Principles II (4)

Expansion of concepts presented in NURS 3505. Concepts of teaching/learning, communication and social action. Addresses the effects of hospitalization on the client, particularly body image and role process applications. Prerequisite: NURS 3505. Open only to R.N. students enrolled in the Nursing Major. (W)

3509 Advanced Principles III (4)

Synthesis of advanced concepts, with the addition of advocacy, dying, sexuality, research and chronicity using the Roy Model for nursing process. Prerequisite: NURS 3507. Open only to R.N. students enrolled in the Nursing Major. (Sp)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Not applicable toward the Nursing major. CR/NC grading only. Prerequisites: at least a 2.0 GPA; department approval of activity.

4205 Nursing Leadership (4)

Integrates the knowledge base of all previous course concepts for increasing independence in professional nursing practice. Open only to students in the Nursing Major. Department permission required. Prerequisites: NURS 3201-08 and 3402-13; RN Advanced Placement Track; NURS 3509. (F)

4207 Principles of Community Health Nursing (2)

Significance of community and community resources for promoting and maintaining the level of wellness of the individual and family is stressed. Open only to students in the Nursing Major. Department permission required. Concurrent enrollment in NURS 4208. Prerequisites: NURS 3201-08 and 3402-13; RN Advanced Option Track: NURS 3509. (F, W, Sp)

4208 Practicum of Community Health Nursing (4)

Concurrent enrollment in NURS 4207. Open only to students in the Nursing Major. Department permission required. Must be taken Credit/No Credit. Twelve hrs. lab. (F, W, Sp)

4301 Preceptorship Seminar (2)

Nursing theory emphasizing the prevention of disease and maintenance of health. Open only to students in the Nursing

major. Department permission required. Concurrent enrollment required in NURS 4302. Prerequisites: NURS 3201-08 and 3402-13; RN Advanced Option Track; NURS 3509. (F, W, Sp)

4302 Preceptorship Practicum (10)

Nursing practice which emphasizes the prevention of disease and maintenance of health. Credit/No Credit grading only. Open only to students in the Nursing major. Department permission required. Concurrent enrollment in NURS 4301. Three hrs. supervised practice per unit. Prerequisites: NURS 3201-08 and 3402-13; RN Advanced Option Track; NURS 3509. (F, W, Sp)

4710 History and Trends in Nursing (4)

(See [HIST 4710](#) for course description.)

4900 Independent Study (1-4)

* Substitution for these courses may be made based on evaluation of transcripts and course descriptions of previous course work.

Philosophy [PHIL]

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- [UNDERGRADUATE COURSES](#)

PHILOSOPHY

Department of Philosophy
School of Arts, Letters, and Social Sciences
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Professors Emeriti:

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Professors:

William J. Langan (Chair), Edward M. MacKinnon, Steve F. Sapontzis, Joaquin A. Zuniga

Associate Professors:

Paul C. Bassen, Marek W. Bielecki

PROGRAM DESCRIPTION

The Department of Philosophy offers programs leading to a B.A. degree major in Philosophy in two different areas, one in philosophy proper, the other in religious studies. Through a broad range of courses in either program, the student encounters the great ideas of our heritage, both Western and Eastern, and gains a knowledge of the foundation of almost all other subjects.

Many different kinds of students choose the major in philosophy proper. Some intend to become professional philosophers or to do graduate work in philosophy. Others take philosophy as a preparation for another professional area. Traditionally, for example, philosophy has been one of the chief roads to professional law schools. Philosophy also serves as a good general liberal arts education. Many of the long-established university disciplines are founded on philosophical principles: political science, sociology, education, aesthetics, physics, and other subjects.

As is true of those selecting the regular major in Philosophy, a great variety of concerns motivates students to choose the Option in Religious Studies. The aim of many religious studies students is to prepare for entrance into theological seminary. Others are attracted to the program because of their interests in the history of Western culture, in comparative religion, or in such subjects as the psychology of religion or the sociology of religion. Again, like the regular major in philosophy, the Religious Studies Option serves as a good liberal arts education.

CAREER OPPORTUNITIES

Analyst ■ Business Executive ■ Clergy ■ Critic ■ College Professor ■ Customer Service Representative ■ Editor ■ Employee Assistance Representative ■ Foreign Service Officer ■ Journalist ■ Personnel Representative ■ Philosopher ■ Lawyer ■ Professor/Teacher ■ Public Relations Specialist ■ Salesperson ■ Stockbroker ■ Theologian ■ Writer

MAJOR REQUIREMENTS ■ B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The regular major consists of 56 units; the Philosophy major with an option in Religious Studies consists of 68 units; the B.A. degree requires a total of 186 units.

I. Philosophy Major (56 units)

- A. One course in ethics (4 units):
PHIL 3100 Ethics (4) or PHIL 3150 Contemporary Ethics (4)
- B. Four courses in the History of Western Philosophy (16 units):
PHIL 3601 Ancient and Medieval Philosophy (4)
PHIL 3602 Rationalism and Empiricism (4)
PHIL 3603 Kant and Idealism (4)
PHIL 3604 Roots of Contemporary Philosophy (4)
- C. One course in contemporary philosophy (4 units):
PHIL 3605 Studies in Contemporary Philosophy (4)
- D. Two courses in metaphysics or epistemology (8 units):
PHIL 3301 Theory of Knowledge (4)
PHIL 3311 Metaphysics (4)
PHIL 3321 Philosophy of the Human Sciences (4)
PHIL 3332 Philosophy of Science (4)
- E. One seminar in philosophy (4 units):
PHIL 4606 Seminar in Philosophy (4)
- F. Five additional Philosophy electives (20 units)
Philosophy courses including those not chosen from the above lists and those repeatable for credit, at least three of which must be upper division.

II. The Option in Religious Studies (68 units)

- A. One course in ethics (4 units)
PHIL 3100 Ethics (4) or PHIL 3150 Contemporary Ethics (4)
- B. Three courses in the history of Western philosophy (12 units):
PHIL 3601 Ancient and Medieval Philosophy (4)
PHIL 3602 Rationalism and Empiricism (4)
PHIL 3603 Kant and Idealism (4)
- C. Three courses in contemporary philosophy (12 units):
PHIL 3604 Roots of Contemporary Philosophy (4)
PHIL 3605 Studies in Contemporary Philosophy (4)
PHIL 4606 Seminar in Philosophy (4)

D. Two courses in metaphysics or epistemology (8 units):

- PHIL 3301 Theory of Knowledge (4)
- PHIL 3311 Metaphysics (4)
- PHIL 3321 Philosophy of the Human Sciences (4)
- PHIL 3332 Philosophy of Science (4)

E. Three courses in comparative religion and philosophy of religion (12 units):

- PHIL 1401 Religions of the World (4)
- PHIL 3400 Philosophy of Religion (4)
- PHIL 3401 Contemporary Religious Thinkers (4)
- PHIL 3403 Philosophies of the East (4)
- PHIL 3410 Comparative Themes in Eastern and Western Philosophy (4)

F. Courses in Supporting Fields (20 units)

Five courses from the following:

- ANTH 3840 Magic, Witchcraft, and Religion (4), 3890 Shamanism (4); ENGL 4720 Mythology (4);
- E S 3185 African American Religion (4), 3310 Native American World View (4); HIST 3114
- History of Early Christianity (4), 3123 History of Medieval Christianity (4), 3132 Renaissance
- Magic (4), 3134 The Reformation (4); HDEV 3600 Development of Religious and Secular World
- Views (4); SOC 3610 Sociology of Religion (4); WOST 3510 Women in Myth and Prehistory (4);
- Other relevant courses approved by the Religious Studies advisor.

Note: The courses in supporting fields may be applied to the general education-breadth requirements. The student's advisor should be consulted.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

I. Cognitive Science Minor (28 units)

The cognitive science minor consists of 28 units, with at least 20 units from two or more departments other than the student's major. The 28 units must include at least 12 units of the core courses. The remaining units must be selected from the listed electives.

A. Core (12 units)

At least 12 units selected from the following courses:

- ANTH 2800 Intro. to Anthropological Linguistics (4)
- One lower division programming course: CS 1020, or 1160 (4)
- CS 4810* Artificial Intelligence (4)
- PHIL 3341 Philosophy of Cognition and Artificial Intelligence (4)
- PSYC 4740* Psycholinguistics (4)

B. Electives (16 units)

- ANTH 3800 Language and Culture (4); BIOL 4510* Neurobiology (4); CS 3120* Programming
- Languages (4), 4110* Compiler Design (4), 4170* Theory of Automata (4); ENGL 3005* Study of
- Language (4); HDEV 4510 Cognitive Development (4), 4520 Language Acquisition and the Symbolic

Function (4); PHIL 2300 Metaphysics and Knowledge (4), 3002 Modern Logic (4), 3301 Theory of Knowledge (4), 3332 Philosophy of Science (4); PSYC 4210* Theories of Learning (4), 4220* Cognitive Processes (4), 4320* Physiological Psychology (4), 4345* Sensation and Perception (4)

II. Philosophy Minor (28 units)

One of the following (4 units):

- PHIL 1600 Introduction to Philosophy (4)
- PHIL 2300 Metaphysics and Knowledge (4)
- PHIL 3100 Ethics (4)

Two courses in the history of Western philosophy, from the following (8 units):

- PHIL 3601 Ancient and Medieval Philosophy (4)
- PHIL 3602 Rationalism and Empiricism (4)
- PHIL 3603 Kant and Idealism (4)
- PHIL 3604 Roots of Contemporary Philosophy (4)
- PHIL 3605 Studies in Contemporary Philosophy (4)

Four additional philosophy courses, of which at least three must be upper division (16 units)

III. Religious Studies Minor (36 units)

A. Core (12 units)

- PHIL 1401 Religions of the World (4)
- PHIL 3400 Philosophy of Religion (4)
- PHIL 3401 Contemporary Religious Thinkers (4)

B. Electives in Philosophy (12 units)

Two courses in the history of western philosophy, chosen from the following (8 units):

- PHIL 3151 Environmental Ethics (4), 3601 Ancient and Medieval Philosophy (4), 3602 Rationalism and Empiricism (4), 3603 Kant and Idealism (4), 3604 Roots of Contemporary Philosophy (4), 3605 Studies of Contemporary Philosophy (4)

One additional course relevant to religious studies (4 units)

C. Electives in Supporting Fields (12 units)

Three courses, chosen from the following:

- ANTH 3840 Magic, Witchcraft and Religion (4), 3890 Shamanism (4); ENGL 4720 Mythology (4); E S 3310 Native American World View (4); HIST 2123 History of Medieval Christianity (4), 3114 History of Early Christianity (4), 3132 Renaissance Magic (4), 3134 The Reformation (4); HDEV 3600 Development of Religious and Secular World Views (4); SOC 3610 Sociology of Religion (4); WOST 3510 Women in Myth and Pre-history (4)

PHILOSOPHY OPTION: LIBERAL STUDIES

Area I (4 units)

One course from the following (4 units):

- PHIL 1301 The Human Condition (4), 1501 Introduction to Social and Political Philosophy (4), 1600 Introduction to Philosophy (4), 2300 Metaphysics and Knowledge (4)

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

One course from the following (4 units):

PHIL 3605 Studies in Contemporary Philosophy (4), 3701 Philosophy of Education (4), 4606 Seminar in Philosophy (4), 4912 Senior Project (4)

Five additional Philosophy courses (excluding PHIL 1000, 1001, 3001, and 3002) at least four of which must be upper division (20 units).

UNDERGRADUATE COURSES

Lower Division Critical Thinking Courses

1000 Workshop in Clear Thinking (4)

Development of clarity and focus in thinking, with attention to rigor, modes of explanation, validity of reasoning, etc. (A)

1001 Introduction to Logic (4)

[CAN PHIL 6]

Beginning study of the forms of valid inference, stressing recent developments in symbolic logic. (A)

Lower Division Philosophy Courses

1101 Contemporary Social and Ethical Issues (4)

Topics of contemporary concern, e.g. human rights, roots of social injustice, affirmative action, sexism and racism. May be repeated for credit when content varies. (Y)

1301 The Human Condition (4)

Views of human reality underlying writings in philosophy, literature, religion, biography, psychology, and other disciplines or sciences from different cultures throughout the world. (Y)

1401 Religions of the World (4)

Selected themes in Eastern and Western religions. (Y)

1501 Introduction to Social and Political Philosophy (4)

Selected problems in social and political philosophy such as: freedom of speech, multi-culturalism and relativism, affirmative action, racism, sexism, violence and the roots of social injustice. (Y)

1600 Introduction to Philosophy (4)

Readings from the works of great philosophers representing different cultures from around the world. (Y)

2300 Metaphysics and Knowledge (4)

Problems concerning the nature of the world and our knowledge of it.

Upper Division Critical Thinking Courses

3001 Critical Thinking (4)

Development of ability to think clearly and rationally, while focusing on one or more topics of contemporary philosophical concern, such as freedom of speech, education and multi-culturalism, affirmative action, racism, sexism, truth and justice. (A)

3002 Modern Logic (4)

Advanced course in symbolic logic. Students without a mathematical background are encouraged to first take PHIL 1001. (Y)

Upper Division Philosophy Courses

3100 Ethics (4)

Major theories about ethics or morality and their relation to different social systems, institutions and cultures of the world. (Y)

3150 Contemporary Ethics (4)

Problems and theories in contemporary ethical and moral thinking, such as: knowledge, multicultural education and relativism; fairness and affirmative action policies; violence, social injustice and freedom; and distributive justice, racism and sexism. May be repeated for credit when content varies. (Y)

3151 Environmental Ethics (4)

Philosophical conceptions of nature or the environment, and human responsibilities towards it, drawn from different historical and cultural traditions. (Y)

3152 Biomedical Ethics (4)

Ethical considerations pertaining to issues in the biological and medical sciences, such as genetic engineering, euthanasia, abortion, death and dying, justification of social research and medical programs, truthfulness with patients and subjects. (Y)

3160 Business and Professional Ethics (4)

Assists students in developing the ability to behave ethically in their professions, by using traditional and contemporary moral frameworks to discuss and evaluate case studies of the ethical dilemmas that confront business and professional people. Covers such topics as truthfulness in business communications, business and government, pollution and the environment, ethics in international dealings, and obligations to stock-holders and the community. (Y)

3201 Aesthetics (4)

Theories of beauty, aesthetic experience, art and artists. (Y)

3211 Philosophy and Literature (4)

Exploration of existential, social, moral, cultural and other issues as they are represented in the literature, drama, art and film from different cultures of the world. (Y)

3213 Ethics in Literature (4)

Fiction, film, and philosophy are the materials for this exploration of different accounts of morality. The fictional sources, from ancient through modern times, provide examples. Any necessary background to philosophical reading supplied in lectures. (Y)

3301 Theory of Knowledge (4)

Investigation of selected issues in philosophy of knowledge. May be repeated for credit when content varies. (Y)

3311 Metaphysics (4)

Investigation of selected issues in metaphysics or ontology. May be repeated for credit when content varies. (Y)

3315 Time and Becoming (4)

Scientific concepts of time and their contrast with individual and social experiences of temporality. (Y)

3321 Philosophy of the Human Sciences (4)

Philosophical study of theories, methods and problems in the social and behavioral sciences. May be repeated for credit when content varies. (Y)

3322 The Phenomenon of Language (4)

The phenomenon of language, including the languages or discourses employed by various disciplines that study

it, such as linguistics, anthropology, psychology, sociology, and philosophy itself. (Y)

3331 History of Science (4)

General survey of the development of the sciences. Cross-listed with [HIST 3331](#). (W)

3332 Philosophy of Science (4)

Methods and concepts of science and their philosophical significance. Cross-listed with [HIST 3332](#). (Sp)

3341 Philosophy of Cognition and Artificial Intelligence (4)

Philosophical study of the nature of cognition and of human and machine intelligence. Explores such questions as: "What is thinking?" "What is intelligence?" "Can computers understand ordinary language?" Recent trends and prospects of the quest for truly intelligent machines. (Y)

3400 Philosophy of Religion (4)

Philosophical issues such as the existence of God, the problem of evil, the paradox of free will, the nature of religious experience and mysticism. May be repeated for credit when content varies. (Y)

3401 Contemporary Religious Thinkers (4)

The religious philosophies of one or more major thinkers of the Twentieth Century from different cultures or religious traditions of the world. May be repeated for credit when content varies. (Y)

3403 Philosophies of the East (4)

Eastern thought as expressed in its great religious philosophies such as Confucianism, Taoism, Hinduism and Buddhism. (Y)

3410 Comparative Themes in Eastern and Western Philosophy (4)

Critical and comparative study of themes from Western philosophy and from Indian, Chinese and other Eastern philosophies. May be repeated for credit when content varies. (Y)

3502 Social and Political Philosophy (4)

Intensive study of the philosophical theories underlying or justifying public policy issues, such as individual freedom and government protection of the rights of others; freedom of speech and religious, racial or sexual prejudice; affirmative action and reverse discrimination; and violence, personal responsibility and the roots of social injustice. (Y)

3503 Philosophy of Law (4)

Introduction to the main schools of jurisprudence and legal philosophy. Cross-listed with [POSC 3503](#). (Y)

3510 Human Rights and Social Justice (4)

Historical perspective on philosophical foundations of human rights with special reference to the struggles for social and racial justice and women's rights. (A)

3601 Ancient and Medieval Philosophy (4)

Western philosophy from the pre-Socratics through the Middle Ages. (F)

3602 Rationalism and Empiricism (4)

Seventeenth and eighteenth century Western philosophy, especially rationalism (Descartes, Spinoza, Leibniz) and empiricism (Locke, Berkeley, Hume). (W)

3603 Kant and Idealism (4)

Kant, nineteenth century German idealists, especially Hegel, and reactions to them. (Sp)

3604 Roots of Contemporary Philosophy (4)

Study of one or more twentieth century philosophical traditions (and their origins in the nineteenth century), such as logical positivism and analytic philosophy, pragmatism and process philosophy, existentialism and

phenomenology. May be repeated for credit when content varies. (F)

3605 Studies in Contemporary Philosophy (4)

Various figures or topics in contemporary philosophy. May be repeated for credit when content varies. (W)

3611 Twentieth Century Latin American Philosophy (4)

Leading Latin American philosophers from the recent past to the present. Theories of human kind, value, and philosophical self-identity. Major contemporary movements such as positivism and liberation theology. The place of the latter in current Chicano thought. (Y)

3701 Philosophy of Education (4)

Philosophical analysis of contemporary theories and methods of education through examination of major works offering contrasting perspectives on the nature of knowledge, competing value systems, and ethical and multicultural concerns in the educational process. Seminar approach emphasizing student participation and presentations. (Y)

3925 Moral Values in the Modern World (4)

A problems-oriented course in ethics focusing on issues of current moral concern, e.g., abortion, affirmative action, animal rights, feminism, euthanasia.

4606 Seminar in Philosophy (4)

Intensive study of an individual philosopher, school, movement or problem in philosophy. May be repeated for credit when content varies. (Sp)

4900 Independent Study (1-4)

4912 Senior Project (4)

Supervised research and preparation of an essay on a significant philosophical problem. Prerequisite: consent of a faculty member.

* Has prerequisites not included in program.

Physical Science

- [PROGRAM DESCRIPTION](#)
- [CAREER OPPORTUNITIES](#)
- [MAJOR REQUIREMENTS ■ B.S.](#)
- [PHYSICAL SCIENCES OPTION: LIBERAL STUDIES](#)

PHYSICAL SCIENCE

Physical Science Program

School of Science

Office: North Science 131

Phone: (510) 885-3441

Professor:

Richard S. Monson (Coordinator), (510) 885-3466

PROGRAM DESCRIPTION

The Physical Science major is designed to give the student a broad perspective in the physical sciences. The major in physical science is especially well-suited for students planning to teach physical science at the secondary school level. It also serves as an excellent background for professional training in law, business or medicine. Students intending to continue into graduate school in the physical sciences should choose the chemistry, geology, or physics major programs.

CAREER OPPORTUNITIES

Aerial Photograph Interpreter ■ Bottle House Quality Control Technician ■ Cloth Tester ■ Criminalist ■ Crude Oil Tester ■ Environmental Analyst ■ Environmental Research Project Manager ■ Food Tester ■ Gas Analyst ■ Geographer ■ Laboratory Assistant ■ Laboratory Inspector ■ Laboratory Technician ■ Laboratory Tester ■ Materials Scientist ■ Pharmaceutical Salesperson ■ Photo-Optics Technician ■ Physical Geographer ■ Pollution Control Technician ■ High School Teacher

MAJOR REQUIREMENTS ■ B.S.

The major consists of 81- 88 units; the B.S. degree requires a total of 186 units.

I. Core (57- 64 units)

MATH 1304 Calculus I (4)
MATH 1305 Calculus II (4)
CHEM 1101 General Chemistry (5)
CHEM 1102 General Chemistry (5)
CHEM 1103 General Chemistry (5)
GEOL 2101 Physical Geology (5)
GEOL 3040 Fundamentals of Meteorology (4)
PHYS 1800 Astronomy (4)

Choose one of the following course sequences, (A) or (B):

- A. PHYS 1001 General Physics (5)
PHYS 1002 General Physics (5)
PHYS 1003 General Physics (5)
MATH 2304 Calculus III (4)
- B. PHYS 2701 Introductory Physics (4)
PHYS 2702 Introductory Physics (4)
PHYS 2703 Introductory Physics (4)

Choose one (4 units):

PHIL 3332 Philosophy of Science (4) or PHIL 3331 History of Science (4)

Choose one (5 units):

BIOL 1001 Introduction to Biology (4) and BIOL 1002 Lab (1) or

BIOL 1303 Foundations of Biological Science (5)

II. Electives (24 units)

Twenty-four additional units (at least 19 must be upper division). The following courses in Chemistry, Geology and Physics are recommended:

CHEM 2200, 2301, -2, 3301, -2, -3, 3400, 3500, 3511, 3512, 3513

GEOL 3030, 3110, 3400, 3610, 3611, 3701, 3730, 3810

PHYS 3101, 3180, 3230, 3280, 3281, 3301, 4001

Other courses applicable to the major may be accepted with prior approval of the Physical Science Coordinator.

PHYSICAL SCIENCES OPTION: LIBERAL STUDIES

Areas I and III. A (17-19 units)

PHYS 1700 Elementary Physics (4)

PHYS 1780 Elementary Physics Laboratory (1)

One of the following (4-5 units):

CHEM 1100 Introduction to College Chemistry (5), 1101 General Chemistry (5), 1601 Basic Chemistry for the Health Sciences (4); BIOL 1001 Introduction to Biology (4)

One of the following (4-5 units):

BIOL 2010 Human Physiology and Anatomy I (5); 2030 Survey of the Plant Kingdom (4); 2040 Survey of the Animal Kingdom (4); 3015 Natural History of Marine Organisms (4); BIOL 1002 Introduction to Biology Lab (1) and 3020 Genetics, Evolution, and Humanity (4); BIOL 3031 Nature Study (4)

Area VII, Credential Track, or Area VI, Liberal Arts Track (23-26 units)

PHYS 1800 Astronomy (4)

PHYS 1880 Astronomy Laboratory (1)

GEOL 2101 Physical Geology (5)

GEOL 3030 Earth and Life Through Time (5)

Electives from the following (8-11 units):

CHEM 1102 General Chemistry (5), 1103 General Chemistry (5), 1602 Basic Chemistry for the Health Sciences (4), 1603 Basic Chemistry for the Health Sciences (4); GEOL 1201 Introduction to Oceanography (4), 1202 Oceanography Laboratory (2), 2300 Natural Disasters (4), Conservation of Natural Resources (5), 3020 Gemstones (4), 3040 Fundamentals of Meteorology (4), 3050 Volcanoes and Plate Tectonics (4), 3051 Volcanoes Laboratory (2), 3100 Geology of Western National Parks (4), 3110 Principles of Geomorphology (4), 3200 Regional Field Geology (1-2), 3400 General Oceanography (4), 3810 Structural Geology (5), 4320 Hydrogeology (4); PHYS 3700 The Big Bang and Other Cosmologies (4)

Physics [PHYS]

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PHYSICS

Department of Physics
School of Science
Office: North Science 231
Phone: (510) 885-3401

Professors:

John C. Giles, Robert H. Good, Charlie Harper (Chair), Frank Martino, Daryl W. Preston

Associate Professor:

Gary Weston

PROGRAM DESCRIPTION

In physics, one attempts to discover, formulate, explain, and apply the basic laws of nature. You could be a physicist and work in areas as diverse as astrophysics, relativity, properties of materials, or the standard model of fundamental particles and interactions. Principles of physics provide the foundation for other sciences as well as engineering. Some of the examples of modern technological development from the application of physical principles include radio and television, computers, laser scanners, and communication by fiber optics. In addition, physicists explore problems in astronomy and theories for the origin and evolution of the universe.

The Bachelor of Science degree major program is designed to give students an understanding of the fundamentals of physics including concepts of atomic and nuclear physics, classical mechanics, wave motion and sound, electromagnetism and optics, heat and thermodynamics, relativity, quantum mechanics, and elementary particles and their interactions.

CAREER OPPORTUNITIES

Aerodynamist ■ Astronomer ■ Biochemical Engineer ■ Electric Power Administrator ■ Geologist ■ Geophysicists ■ Laboratory Assistant ■ Laser Technician ■ Metallurgist ■ Meteorologist ■ Mineralogist ■ Oil Well Manager ■ Park Ranger ■ Petrologist ■ Pharmacologist ■ Pollution Control Technician ■ Seismologist ■ Stratigrapher ■ Technical Writer ■ Thermodynamic Physicist

FEATURES

With relatively small classes and teaching as a major emphasis of faculty members, the physics major involves a considerable amount of individualized instruction. In addition, research done by faculty members often includes student participation.

Hands-on experience is the central theme of the programs and a full range of equipment including microcomputers exists in the department for use in laboratory experiments and classroom demonstrations. Upper division students use modern equipment to conduct experiments in such areas as fiber optics, laser spectra, atomic and molecular spectra, the Zeeman effect, Compton scattering, the Hall effect, the Franck-Hertz experiment, and gamma-ray spectra.

Physics majors have an opportunity to be inducted into the national physics honors society, Sigma Pi Sigma. Additionally, students may join the Society of Physics Students (SPS).

MAJOR REQUIREMENTS - B.S.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 97 units; the B.S. degree requires a total of 186 units.

I. Lower Division (42 units)

PHYS 1001, 2, 3 General Physics (15)
CHEM 1101, 2, 3 General Chemistry (15)
MATH 1304, 1305, 2304 Calculus I, II, III (12)

II. Upper Division (55 units)

MATH 3331 Differential Equations I (4)
PHYS 3101, 3102 Analytic Mechanics I,II (8)
PHYS 3180 Computational Physics (4)
PHYS 3250 Modern Physics (4)
PHYS 3280 Electronics (4)
PHYS 3281, 3282 Experimental Physics I, II (8)
PHYS 3301, 3302 Quantum Mechanics I, II (8)
PHYS 4001, 4002 Electromagnetism I (8)
PHYS 4150 Statistical Mechanics (4)
PHYS 4250 Selected Topics (3)

Sample Program

Fall *Winter* *Spring*

First Year

PHYS 1001 (5) PHYS 1002 (5) PHYS 1003 (5)
CHEM 1101 (5) CHEM 1102 (5) CHEM 1103 (5)
MATH 1304 (4) MATH 1305 (4) MATH 2304 (4)

Second Year

PHYS 3101 (4) PHYS 3102 (4) PHYS 3180 (4)

MATH 3331 (4)

Third Year

PHYS 3250 (4) PHYS 3281 (4) PHYS 3282 (4)

PHYS 3280 (4) PHYS 3301 (4) PHYS 3302 (4)

Fourth Year

PHYS 4001 (4) PHYS 4002 (4) PHYS 4150 (4)

PHYS 4250 (1) PHYS 4250 (1) PHYS 4250 (1)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor in physics is designed to provide a general background in physics for students majoring in other areas. It is of particular value to students majoring in such sciences as biology, chemistry, computer science, geology, and mathematics. A minor in physics will broaden student's understanding of physical science and will expand employment opportunities, including teaching at the secondary school level. The minor consists of 47 units.

PHYS 1001, 1002, 1003 General Physics (15)

(With departmental approval. PHYS 2701, 2702, 2703 may be substituted.)

MATH 1304, 1305, 2304 Calculus (12)

MATH 3331 Differential Equations (4)

PHYS 3101 Analytic Mechanics (4)

PHYS 3180 Computational Physics (4)

PHYS 3250 Modern Physics (4)

At least one upper division physics course (4)

COURSES

1001, 1002, 1003 General Physics (5 each)

All major fields of physics are covered in this sequence. This sequence is designed for physics, physical science, geology (B.S.), and chemistry (B.S.) majors. MATH 1304, 1305, 2304 are corequisites or prerequisites. Each course is a prerequisite of the one following. Four hrs. lect., 3 hrs. lab., each. (1001: F; 1002: W; 1003: Sp)

1001 Newtonian Mechanics and Oscillations

1002 Thermodynamics and Electromagnetism

1003 Optics and Modern Physics

1700 Elementary Physics (4)

A non-mathematical survey of the basic physical laws (rules) of nature with emphasis on the origin, meaning, significance, and limitations of these laws. Topical areas include mechanics, wave motion, electricity and magnetism, heat and thermodynamics, relativity, quantum theory, and elementary particle theory. Not applicable

to the physics major. (A)

1780 Elementary Physics Laboratory (1)

A lab designed to accompany PHYS 1700 and to introduce students to some equipment used in physics. The experiments are hands-on activities in mechanics, wave motion and sound, temperature and heat, electricity, light, and radioactivity. Not applicable to the physics major. Three hrs. lab. (A)

1800 Astronomy (4)

A descriptive survey of astronomy, astrophysics, and cosmology. Emphasis is on the physical nature and evolution of galaxies, stars, and planets. Not applicable to the physics major. (A)

1880 Astronomy Laboratory (1)

A lab designed to accompany PHYS 1800 and PHYS 3700. Experiments are hands-on activities involving positions and motions of the moon, planets, and stars. Some night observations are included. Not applicable to the physics major. Three hrs. lab. (A)

2701, 2702, 2703 Introductory Physics (4 each)

[2701-2702-2703: CAN PHYS SEQ A]

A three-quarter sequence in general physics, designed primarily for students taking the B.S. biological sciences (including pre-professional students), chemistry (B.A.), and geology or for non-science majors requiring a good foundation in physics. Knowledge of algebra and trigonometry required. For students who are not majoring in physics. Three hrs. lect., 3 hrs. lab each. (2701: F; 2702: W; 2703: Sp)

2701 Force, Mass and Motion

Prerequisite: Trigonometry or MATH 1300.

2702 Heat, Sound, Electricity and Magnetism

Prerequisite: PHYS 2701.

2703 Light and Modern Physics

Prerequisite: PHYS 2702.

3101 Analytic Mechanics I (4)

An intermediate introduction to Newtonian and advanced mechanics with applications: conservation laws, conservative and non-conservative systems, the central force problem, Kepler's laws of planetary motion, and two-particle collisions. Prerequisite: PHYS 1003; MATH 3331 recommended. (F)

3102 Analytic Mechanics II (4)

Further study in mechanics with applications: small oscillations, the linear harmonic oscillator, anharmonic oscillators, coupled oscillators and normal modes, mechanical wave motion, hydrostatics, and hydrodynamics. Prerequisites: PHYS 3101; MATH 3331 recommended. (W)

3180 Computational Physics (4)

Computer simulation methods applied to the physics of particles, fields, and waves; use of numerical methods to solve physics problems involving matrices, systems of equations, integral and differential equations; introduction to interfacing and data acquisition techniques. Prerequisites: PHYS 3101; MATH 3331 recommended. Two hrs. lect., 6 hrs. lab. (Sp)

3250 Modern Physics (4)

An introduction to relativity, quantum nature of radiation, wave properties of particles, atomic and nuclear physics, and elementary particles. Prerequisites: PHYS 3101 and 3180; MATH 3331 recommended. (F)

3280 Electronics (4)

Analog and digital devices and circuits. Emphasis is on developing familiarity with instrumentation circuits. Diodes, transistors, linear amplifiers and logic devices. Optical, thermal, and acoustic transducers as detectors in

sensor circuits. Prerequisites: PHYS 1003 or consent of instructor. Two hrs. lect., 6 hrs. lab. (F)

3281 Experimental Physics I (4)

Laboratory safety, research literature, writing scientific reports, oral presentations, experimental design, and statistical treatment of experimental data. Microcomputer interfacing, uses of microcomputers in experimentation and control. Experiments involving transmission lines and electromagnetism, atomic physics, molecular physics, condensed matter, and nuclear physics with emphasis on spectroscopy. Prerequisites: PHYS 3180, 3250, and 3280. Two hrs. lect., 6 hrs. lab. (W)

3282 Experimental Physics II (4)

Further study in experimental physics. Experiments involving transmission lines and electromagnetism, atomic physics, molecular physics, condensed matter, and nuclear physics with emphasis on spectroscopy. Prerequisites: PHYS 3180, 3250, and 3280; PHYS 3281 is recommended. Two hrs. lect., 6 hrs. lab. (Sp)

3301 Quantum Mechanics I (4)

An introduction to quantum mechanics: the Schrodinger wave equation, constant potential problems in one- and three-dimensions, and the linear harmonic oscillator. Prerequisites: PHYS 3101, 3180, and 3250; MATH 3331 recommended. (W)

3302 Quantum Mechanics II (4)

Further study in quantum mechanics: angular momentum, hydrogen atom, and approximation methods. Prerequisites: PHYS 3102, 3180, and 3301; MATH 3331. (Sp)

3700 The Big Bang and Other Cosmologies (4)

A descriptive course on the cosmological origin and evolution of the universe. Historical review of cosmological models and discussion of current theories. Stellar and galactic origin and evolution, stellar energy, the early universe, open and closed universes, and the search for extra-terrestrial life. (A)

3800 Achievements of Women in Science (4)

See [BIOL 3800](#) for course description.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the physics major; a maximum of 2 units will be accepted toward the minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity.

4001 Electromagnetism I (4)

An intermediate treatment of electricity and magnetism including Maxwell's equations; electrostatics, currents, magnetism and electromagnetic induction. Prerequisites: PHYS 1003 and 3180; MATH 3331. (F)

4002 Electromagnetism II (4)

Further development based on Maxwell's equations; special relativity in electromagnetism; electromagnetic waves and wave guides; radiation from charges and antennae; ac circuitry. Prerequisites: PHYS 3180, and 4001; MATH 3331. (W)

4150 Statistical Mechanics (4)

Applications of the laws of thermodynamics and distribution laws; unified approach to thermodynamics and statistical mechanics. An introduction to the methods of classical and quantum statistics with applications: ideal and real gases, solids, photon gas, Boson gas, Fermion gas, and critical phenomena. Prerequisites: PHYS 3180 and 3302. (Sp)

4250 Selected Topics (1)

The study of an area of physics that is not normally available in other courses and/or an extension of topics covered in other courses. May be repeated for credit with different topics. Prerequisites: senior standing in

physics. (F,W,Sp)

4900 Independent Study (1-4)

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California State University - Hayward
Last Update: 11/18/96

Political Science [POSC]

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POLITICAL SCIENCE

Department of Political Science
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 4092
Phone: (510) 885-3221

Professors:

James S. Fay (Chair), Sherman L. Lewis, James L. Nichols, Emily Stoper

Associate Professor:

David Sadofsky Baggins

Assistant Professor:

Norman A. Bowen

PROGRAM DESCRIPTION

The political science curriculum helps students to acquire an organized body of knowledge about government and to think analytically about public policy, law, and politics. The political science degree prepares graduates to enter careers in government, public service, public administration, public policy analysis, legislative advocacy, business, international relations, and teaching. Many Cal State Hayward political science graduates continue their academic careers in law school, or in the pursuit of graduate degrees in political science or public policy analysis.

CAREER OPPORTUNITIES

Administrative Assistant ■ Attorney ■ Campaign Aide/Manager ■ Diplomat ■ FBI/CIA Agent ■ Foreign Service Officer ■ International Relations Specialist ■ Journalist ■ Labor Organizer/Union Representative ■ Law Clerk ■ Legislative Advocate/Lobbyist ■ Legislative Aide ■ Paralegal ■ Legal Assistant ■ Police Officer ■ Politician ■ Polling Specialist ■

■ ■ ■ ■ ■

FEATURES

The political science major offers a Pre-Law Option for students planning a career in law. For students contemplating a career in public administration, the Public Affairs and Administration Option is designed to meet their needs. The Political Science department offers a Major, a Minor, and a Liberal Studies Option. Special features of the Political Science major include: the Intercollegiate Model United Nations Club; field trips to Sacramento and to State and Federal courts; guest political speakers; pre-law advising; local, Sacramento, Washington, and political campaign internships; College Democratic and Republican clubs; the Blackstone Pre-Law club; and the Helen C. Jacobsen Scholarship.

MAJOR REQUIREMENTS - B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The regular major consists of 56 units; the Pre-Law Option consists of 60 units, the Public Affairs and Administration Option consists of 64-65 units; the B.A. degree requires a total of 186 units.

The Traditional Political Science Major

I. Lower Division (4-16 units)

- A. POSC 1201 American Political Institutions (4)
- B. Students may take an additional 4-12 units of lower division courses, chosen from the following:
POSC 1000 Introduction to Political Science (4), 1100 Critical Thinking About Political Issues (4), 1202 Public Policy/California Politics (4), 1300 Politics of Developing Countries (4), 1400 Introduction to Public Affairs and Administration (4), 1500 Conflict in World Politics (4), 2000 Political Forum (1)

II. Upper Division (40-52 units)

- A. POSC 3010 Political Inquiry: Scope & Methods (4)
- B. One course in each of the following five fields (20)
 - 1. American Government and Public Administration (includes courses listed under Public Policy and Administration)
 - 2. Public Law
 - 3. Comparative Government and Politics
 - 4. International Relations
 - 5. Political Theory
- C. POSC 4910 Political Science Seminar (4)
- D. Twelve (12) to twenty-four (24) additional units from upper division political science courses

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

PRE-LAW OPTION

Students taking this option will focus their coursework in legal studies. Completion of this program will lead to a B.A. degree, major in Political Science with an Option in Pre-Law. The total required for the major with Pre-Law Option is 60 units. The total required for the B.A. degree is 186 units.

Two quarters before you expect to graduate, complete a major check sheet and inquire about other requirements for graduation. The following is an outline indicating specific courses and options necessary for completing the option in pre-law.

I. Foundation Courses (20 units)

- POSC 1201 American Political Institutions (4)
- POSC 1202 Public Policy/California Politics (4)
- One lower or upper division course in International Relations (4)
- One lower or upper division course in Comparative Government (4)
- One upper division course in Political Theory (4)

II. The Political and Policy Context of the Law (16 units)

Choose any four courses from the following:

- H SC 3350 Health Legislation and Government Programs (4); MGMT 4500 Business, Government and Society (4); POSC 3111 The American Presidency (4), 3112 Congress and the California Legislature (4), 3120 State and Local Politics and Government (4), 3130 Urban Politics (4), 3150 Politics of California (4), 3170 Public Policy and the Family (4), 3310 Political Parties and Campaigns (4), 3330 Interest Groups, Lobbying, and Political Reform (4), 3340 Women and Politics (4), 3800 Public Policy Analysis (4), 3870 Introduction to Public Personnel (4), 4171 Public Policy and the Environment (4), 4861 Politics of Budgeting (4)

III. Public Law (24 units)

Choose any six courses from the following:

- ANTH 3440 Anthropology of the Law (4); MGMT 2701 Legal Environment of Business (4); MGMT 4680 Collective Bargaining and Labor Law (4); PHIL 3503 Philosophy of Law (4); POSC 3410 Law and Society (4), 3417 Survey of American Law (4), 3441 Constitutional Law I (4), 3442 Constitutional Law II (4), 3460 Environmental Law (4), 3951 International Law (4), 4450 Administrative Law (4), 4910* Political Science Seminar (4)

PRE-LAW STUDENTS

The study of law is a postgraduate professional program, requiring three years of full-time study beyond the completion of the bachelor's degree. No specific pre-law undergraduate program is required for admission to law schools. However, students wishing to focus on legal studies at Cal State Hayward, may complete the Pre-Law Option in the Political Science major.

Students intending to enter law school commonly complete undergraduate majors in political science, economics, business, or history. The pre-law student's undergraduate plan of study should include among its objectives a facility in the proper use of written and spoken English, a sampling of undergraduate law courses, one or more critical/logical thinking courses, and a basic understanding of government and economics. Some law schools recommend that students take a basic accounting course, particularly if they are interested in business or tax law.

Students planning to enter law school should consult a pre-law advisor. Dr. James Fay and Dr. David Baggins of the Department of Political Science, both of whom are attorneys, serve as pre-law advisors. Several other departments also

have pre-law advisors.

Most accredited law schools require that applicants complete the Law School Admission Test. The LSAT is typically given in September, December, February, and June at one or more testing centers in the Bay Area. Pre-law students should obtain LSAT registration materials and law school applications early in their senior year. Copies of these materials can be secured from the Office of Assessment and Testing Services and from the Department of Political Science. The Political Science department library has a copy of the Law School Guidebook and many law school catalogs.

PUBLIC AFFAIRS AND ADMINISTRATION OPTION

Students taking this option will concentrate their coursework in American political institutions, public policy, and administrative processes. Completion of this program will lead to a B.A. degree major in Political Science, with an Option in Public Affairs and Administration.

Since several courses overlap (ECON 2301, 2302, ACCT 2210 or 2251, ACCT 2270, MGMT 4500), the department encourages students who pursue this option to consider combining it with the Minor in Business Administration.

The major with this option consists of 64-65 units; the B.A. requires a total of 186 units. The course requirements for this option are as follows:

I. Lower Division (24-25 units)

- ECON 2301 Principles of Microeconomics (4)
- ECON 2302 Principles of Macroeconomics (4)
- POSC 1201 American Political Institutions I (4)
- POSC 1400 Introduction to Public Affairs and Administration (4)

At least one course from two of the following groups (8-9 units)

Group I

- STAT 1000 Elements of Probability and Statistics (5)
- STAT 2010 Elements of Statistics for Business and Economics (5)

Group II

- ACCT 2210 Accounting for Non-Business Majors (4)
- ACCT 2251 Principles of Accounting (4)

Group III

- CS 1020 Introduction to Computers (4)
- CS 1160 Introduction to Computer Science and Programming Methods (4)
- STAT 3900 Statistical Package for Social Sciences (4)
- Or any substitute approved by the Political Science department.

II. Upper Division (40 units)

A student must take 36 units of upper division coursework chosen from the following three groups:

Group I -- Public Affairs and Administrative Processes (at least 12 units)

- ECON 3370 Public Finance (4); POSC 3800 Public Policy Analysis (4), 3870 Introduction to Public Personnel (4), 4450 Administrative Law (4), 4861 Politics of Budgeting (4); PUAD 4800 The Study of Public Administration (4), 4830 Organization Theory & Human Behavior (4)

Group II -- Political Institutions and Processes (at least 8 units)

POSC 3111 The American Executive (4), 3112 Congress and the California Legislature (4), 3120 State and Local Politics and Government (4), 3130 Urban Politics (4), 3150 Politics of California (4), 3310 Political Parties and Campaigning (4), 3330 Interest Groups, Lobbying and Political Reform (4), 3410 Law and Society (4), 3417 Survey of American Law (4), 3441 American Constitutional Law I (4), 3442 American Constitutional Law II (4), 3460 Environmental Law (4)

Group III -- Public Affairs and Public Policy (at least 8 units)

H SC 3350 Health Legislation & Government Programs (4); MGMT 4500 Business, Government and Society (4); POSC 3170 Public Policy on the Family (4) 3340 The Political Status of Women (4), 3500 World Problems and Global Response (4), 3505 American Foreign Policy (4), 3510 War and Peace (4), 3521 Politics of the Global Economy (4), 3714 The Challenge of the Conservative Revolution (4), 4171 Public Policy and the Environment (4)

Capstone Course:

POSC 4911 Seminar in Administrative Ethics (4)

MINOR REQUIREMENTS

The minor consists of 24 units of Political Science courses of which at least 16 units must be in upper division. The purpose of the Minor in Political Science is to provide a general background in political science to complement majors in such areas as business administration, environmental studies, science, humanities and the other social sciences. The student should consult with a Political Science department advisor or the chairperson in selecting courses.

MINOR IN AMERICAN STUDIES

A political science major may graduate with a Minor in American Studies. (See the [American Studies chapter](#) in this catalog.)

POLITICAL SCIENCE OPTION: LIBERAL STUDIES

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

1. Four (4) units from the following:
POSC 1201** or 3100**, or their equivalent
2. Twenty (20) additional Political Science units of which sixteen (16) must be upper division.

UNDERGRADUATE COURSES

Lower Division Courses

1000 Introduction to Political Science (4)

Introduction to the study of politics and government, surveying the concepts and approaches of political science. (Y)

1100 Critical Thinking About Political Issues (4)

An examination of important political issues in the context of evidence, logic, proof, premises, analogies, and other aspects of critical thinking. (Y)

1201 American Political Institutions (4)

Development of political institutions and ideals in the U.S. Key elements of the political system, including the Constitution, Presidency, Congress, Courts, parties, elections, and bureaucracy. Combined with POSC 1202 meets code requirements in U.S. history, U.S. Constitution and California government. (A)

1202 Public Policy/California Politics (4)

Issues in American public policy, focusing on contemporary controversies (energy, environment, civil liberties, etc.). California state and local government. Combined with POSC 1201 meets code requirements in U.S. history, U.S. Constitution, and California government. Prerequisite: POSC 1201. (A)

1300 The Politics of Developing Countries (4)

Problems facing the Third World. Topics include: decolonization, the military, leadership and democracy, liberation movements, nationalism, ethnic conflict, development strategies, tradition and modernization, religion, population, the environment, grass roots movements. Third World strategies to effect change in the world system. (Y)

1400 Introduction to Public Affairs and Administration (4)

Politics and administration of public policy, the policy-making process, administrative leadership, bureaucratic institutions, organization dynamics, intergovernmental relations, citizen influence and input in public affairs and administration. (Y)

1500 Conflict in World Politics (4)

Causes of conflict. Topics include Iraq and Desert Storm, Bosnia, the Middle East, and Third World conflicts. Analysis of foreign aggression, civil war, terrorism, ethnic struggle, nationalism, boundary disputes, military force, sanctions, peacekeeping, mediation, disaster relief, and economic aid. (Y)

2000 Political Forum (1)

Student and faculty presentations and discussions on matters of broad political interest. Course may be repeated up to eight times; up to four units may be applied to the political science major or minor. CR/NC grading only. (F, W, Sp)

Upper Division Courses

American Government and Politics

3003 The Political Film (4)

The strengths and weaknesses of film as a medium of political expression. Topics include propaganda, revolution, war, poverty, myth, documentary, campaigns, and political personality. (Y)

3100 American National, State and Local Government (4)

Relationships of various governments in the United States; the organization, processes and problems of national, state and local government. Meets code requirements in the U.S. Constitution and in California state and local government. May not be taken for credit in the political science major or by students who have already had POSC 1201 or equivalent. (Y)

3111 The American Presidency (4)

Study of the American Presidency both historically and analytically with an emphasis on roles and powers; the

struggle between the President and Congress; the leadership role of the President in government, political parties, and public opinion. (Y)

3112 Congress and the California Legislature (4)

Background and recruitment of Congressmen and state legislators, elections, the rules of the game, constituent representation, the committee system, leadership, relations with the Executive Branch, lobbyists, and reform proposals. Field trip to the California legislature. Emphasis on sources of information about Congress for the concerned citizen. (Y)

3113 Political Internship (2-4)

Practical experience on a legislative or executive staff or in a campaign organization. May be repeated once for credit with permission of instructor. (F, W, Sp)

3120 State and Local Politics and Government (4)

The structures, processes, policies, political culture and power distributions of governments of states, cities, suburbs, small towns, metropolitan areas and neighborhoods. Special reference to California and San Francisco Bay Area institutions and problems. Satisfies the California state and local government code requirement. (Y)

3130 Urban Politics (4)

Styles and structures of city government; community power studies; community control and metropolitan government; problems of crime, welfare, finance, education, pollution, planning; emphasis on the Bay Area. (Y)

3150 Politics of California (4)

Political culture, electoral systems, and public policy in California. Field trip to the California Legislature. Satisfies code requirement in California state and local government. (Y)

3151 Contemporary California (4)

California trends in the last part of the 20th century. The state's diversified and dynamic economy, unique cultural heterogeneity, and rapidly changing politics and issues. (Y)

3310 Political Parties and Campaigning (4)

Party organizations in U.S. and California, historical changes in party operations, political machines and patronage, money in politics, party labels, the differences and similarities between the major parties, minor parties, the new style of campaigns, professional campaign management firms, the prospects for reform. (Y)

3330 Interest Groups, Lobbying, and Political Reform (4)

Private power and American public policy; the nature and sources, strategy and tactics of pressure group power in the American political process. Business, labor, agriculture, the professions, minority groups, and religion as organized groups influencing political decision making. (Y)

3333 Ethnic and Minority Politics (4)

Contemporary and historic analysis of ethnic and minority participation in the political process. Voting, elections, interest groups, political machines, office holders, activists, strategies, and common participatory patterns. Cross-listed with [E S 3333](#).

3340 Women and Politics (4)

Public policy relating to American women; impact of the women's movement on public policy and political behavior; women as voters, political activists, political office-holders; the function of sex roles in the political system. (Y)

3350 American Politics in the Era of Vietnam and Watergate (4)

Analysis of the Watergate and Vietnam crises in American politics. Origins and course of the Vietnam war; rise of presidential power; congressional, media, and popular reaction; fall of the Nixon Administration; long-term effects on the American political system and on American foreign policy. (Y)

3952 Politics and Culture (4)

Relationship between political trends and American culture. Analysis of social movements, the arts, media, and voter behavior through reading of works of fictional non-fiction representative of the era since the 1950's.

Public Policy and Administration

3170 Public Policy on the Family (4)

The evolution of and current controversies over American government policies on the family, including abortion, family planning, marriage, divorce and custody, child care subsidies, wife battering, child abuse, and welfare. Impact of policies on the poor and minority groups, as well as on middle class whites. (Y)

3800 Public Policy Analysis (4)

Surveys the formulation, implementation, and impact of public policy dealing with social and economic problems. Examines and evaluates the causes and content of government policy in various areas such as civil rights, social welfare, urban affairs, crime, education, health, environment, energy, taxation. (Y)

3870 Public Personnel Management (4)

Politics, history, values and contemporary issues related to employment in the public sector. Topics include discriminatory practices, affirmative action efforts, training and development programs, comparable worth pay systems, collective bargaining, and constitutional rights of employees. (Y)

4171 Public Policy and the Environment (4)

Politics of human-environment relationships. Sustainability, biodiversity, population, consumption, technology, energy, water, resources, recycling, pollution, and urban systems. Cultural values, paradigm change, science, risk analysis, market pricing, competition of networks, and citizen action. Significant written assignment integrates theory and practice. (Y)

4172 Public Policy and Health (4)

Research and reports on the development and administration of public policy with regard to medicine and health care; problems of organization and financing of health care services, health insurance, medical research, and health worker programs in the United States. (Y)

4861 Politics of Budgeting (4)

Politics and governmental budgeting; executive-legislative relationships, interest group activities, and citizen demands; the budget as an instrument for management, planning, and policy-making at federal, state, and local levels. (Y)

Comparative Government and Politics

3201 Political Systems of Western Europe (4)

The governments and politics of Great Britain, France, Germany, and other Western European nations. Development and expansion of the European Union. (Y)

3204 Political Systems of Asia (4)

An analysis of politics in selected Asian countries. The degree of emphasis on particular countries and areas such as China, India, Japan, and Southeast Asia varies. (Y)

3222 Government and Politics of Eastern and Central Europe (4)

The politics of the formerly communist states of Eastern and Central Europe. Countries covered include Russia, Ukraine, Poland, Romania, the Balkans and others. New democratic institutions and economic development. Links with Western Europe. (Y)

3260 Government and Politics of Africa South of the Sahara (4)

The governments of the nations of Africa south of the Sahara, with special reference to comparative colonial policies, nationalist movements, political parties, and the problems of nation building; comparative economic systems and the roll of the military. (Y)

3280 Political Systems of Latin America (4)

Political development, instability, and revolution in a comparative framework. Case studies of political development in major countries; group conflicts, ideology, administrative problems, and the role of violence. (Y)

*Public Law***3410 Law and Society (4)**

Rise of the American legal system and evolution of values in the law. Courts in the political system and the policy impact of modern legal initiatives. (F, W, Sp)

3417 Survey of American Law (4)

The basic elements of the American legal system, its essential values, and its impact on society. Personal injury, contracts, criminal law, regulation, and international law. Emphasis on case law as the basis for exploring the legal system. (Y)

3441 American Constitutional Law I (4)

The American Constitution as a model of government. The role of democracy, federalism, assumptions regarding human nature, citizenship, separation of powers, capitalism, and issues of empire building. (Y)

3442 American Constitutional Law II (4)

The Bill of Rights as interpreted by Court decisions since its adoption. Topics include freedom of speech, religion, equal protection, and personal privacy. Emphasis on the relationship among rights, politics, judicial behavior and public policy. (Y)

3460 Environmental Law (4)

Legislative, judicial, and administrative controls over public and private actions impacting on the environment. Examination of statutory, administrative, and judicial decisions relating to the environment and of government actors and agencies making these decisions. (Y)

3503 Philosophy of Law (4)

(See [PHIL 3503](#) for course description.)

3951 International Law (4)

The rules that govern governments and world bodies. Includes treaties, law of the sea, environmental protection, use of force, terrorism, and markets. Focus on the movement toward global community.

4450 Administrative Law (4)

Administrative function in American national and state systems: foundations of administrative power; judicial supervision of administration; status of regulatory and quasi-judicial agencies; delegation of legislative and executive powers. (Y)

*International Relations***3500 World Problems and Global Response (4)**

Arms control, human rights, development, debt, women's rights, world population, environmental protection, and technology transfers. Analysis of key actors (United Nations, specialized agencies, national governments, non-governmental organizations) and policy alternatives. Student opportunity to work with local organizations. (Y)

3505 American Foreign Policy (4)

National security, economic and development assistance policies since World War II. Current policy choices and the constitutional conflict between Congress and the President. Rule of the State Department, the military, the CIA, and non-governmental organizations (labor, business, and veterans). (Y)

3506 Russian Foreign Policy (4)

Historical, ideological, geopolitical, and economic roots of Russian and Soviet foreign policy. Origins and conclusions

of the Cold War in retrospect. Russian relations with former Soviet lands, Eastern and Western Europe, the United States, and developing nations. The Soviet and Russian roles in the arms race and arms control. (Y)

3507 European Integration and Security (4)

Origins of European integration. The European Union, Conference on Security and Cooperation in Europe, NATO, and the European Parliament. Border restrictions. Pan European laws and regulations. The expansion of the European Union and NATO to Central Europe. Tensions with neighbors. (Y)

3510 War and Peace (4)

Major power security concerns, regional alliances, and Third World countries. Analysis of nuclear, chemical, biological, and conventional arms proliferation and arms control. Military doctrine and weapons systems, conflict resolution, peacekeeping, and peace movements. Student opportunity to work with local organizations. (Y)

3520 International Relations (4)

The conduct of relations among states. The international system, national power, sovereignty, nationalism, ideology; use of diplomacy, propaganda, economic influence, military force; problems of neocolonialism, multinational corporations, racial tensions, nuclear deterrence, war, the role of the United Nations. (Y)

3521 Politics of the Global Economy (4)

International trade and development assistance. Focus on GATT, the World Trade Organization, the G7 nations, and the International Monetary Fund. Problems of transnational corporations, labor standards, and migration. Global liberalism compared with collectivist economies. Ecological, participatory, regional and nationalist challenges. (Y)

3550 The United Nations and World Community (4)

Historical, institutional and theoretical background of the contemporary United Nations and related agencies; focus on participation of selected countries in the UN structure and operations with regard to current international problems and issues. May be repeated for credit by students participating in Model UN. (Y)

Political Theory

3703 American Political Thought (4)

Significant American political ideas and thinkers from the Pilgrims to the present. Includes, among others, Jefferson, Madison, Calhoun, King, and Gingrich. (Y)

3704 Marxism in Theory and Practice (4)

The writings of Marx and the characteristics of Marxism in the 20th century. (Y)

3711 Greek, Roman and Medieval Political Thought (4)

Major Western political ideas from the Greeks through the 15th century. Emphasis upon major political theorists in the development of classical Greek and Roman, Medieval Christian, and Renaissance political theory. Cross-listed with [HIST 3711](#). (Y)

3712 Early Modern Political Thought (4)

Major Western political ideas from 1500 to 1800. Emphasis upon major figures in the development of modern scientific, natural rights, nationalistic, and power theories. Cross-listed with [HIST 3712](#). (Y)

3713 Contemporary Political Thought (4)

Major Western political ideas in the 19th and 20th centuries. Emphasis upon central figures in the development of Democratic, Marxist, Socialist, and various other contemporary bodies of political theory. (Y)

3714 The Challenge of the Conservative Revolution (4)

The premises and goals of the Republican resurgence in Congress. Focus on the theoretical ideas raised by the Conservative Revolution: the proper size and purposes of the state, the meaning and necessity of radical change, citizenship rights, entitlements and responsibilities, the meaning of federalism, and the Legislative-Executive balance.

3715 The State and the Family (4)

The relationship between the public and private spheres. The relationship between the state and family as perceived by political theorists. The home as a metaphor for public life; the patriarchal and other modes of government and the family; the interdependence of the family, the economy, and the state; the family as haven of resistance in a hostile political environment. Classical political theory texts and contemporary writings.

3716 Citizenship, Community, and Democratic Theory (4)

The duties and rights of citizenship, personal and ethnic identities, and evolving democratic theory. Specific issues raised by contemporary politics: national service, immigration policy models of citizenship participation, dismantling the welfare state, utopian and contemporary notions of community, and affirmative action. Classical and contemporary texts.

*General***3010 Political Inquiry: Scope and Methods (4)**

Analysis of central concepts and research techniques in political science through examination of selected studies in the development of the discipline. (F, Sp)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Political Science major; a maximum of 4 units will be accepted toward the Political Science minor. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

4900 Independent Study (1-4)**4910 Political Science Seminar (4)**

Contributions of natural and social science theories, methods, results for political science; scope and method of political science; individual research on selected topics. Open to seniors only. Registration priority given to political science majors and minors. Prerequisite: POSC 3010. (Y)

4911 Seminar in Administrative Ethics (4)

Examination of moral choices and ethical issues in various aspects of public administration via case studies, oral presentations, and individual research projects. Capstone course for students in the public affairs and administration option. Prerequisite: senior standing. (Y)

* If student does research on a legal topic.

** POSC 1201 and 3100 may not both be taken for credit.

Preprofessional Programs

- [The Medical Sciences](#)
- [Certificate in Pre-Physical Therapy](#)
- [Pre-Engineering Certificate and Advising](#)
- [Pre-Law Studies](#)
- [Natural Resources](#)
- [Pre-Theological Studies](#)

PREPROFESSIONAL PROGRAMS

The Medical Sciences

A student interested in entering medicine, dentistry, veterinary science, or allied health sciences should contact the School of Science office, SCN 131.

The School of Science office will direct the student to a preprofessional advisor to receive program information and individual counseling about meeting the requirements for admission to professional schools. The composite letter of recommendation, drafted by the preprofessional advisor and approved by the chair of the committee, represents the official campus analysis of the student for professional schools. If letters of recommendation from individuals are required or desired by a professional school, they are the responsibility of the student.

The required courses for the various professional fields do not comprise a major, therefore the student is free to select any major. Accordingly, in addition to the preprofessional advisor, each student must also select a major advisor on the same basis as do all other students at the university. Admission to professional schools is highly competitive. Consequently, the major selected should be one representing an alternate career objective satisfactory to the student.

Students intending to enter the medical or dental professions should plan on completing a baccalaureate degree with an appropriate academic major. Many premedical and pre dental students major in biological sciences or chemistry, but majors in the social sciences and the humanities are acceptable to medical and dental schools, provided the specified courses in science have been completed.

Admission to medical and dental schools is restricted to those students who have developed a facility in the use of English and in quantitative thinking, who have mastered the fundamentals of the physical and biological sciences, and who have studied in depth one of the major fields of knowledge.

Cal State Hayward is an official test center for the Medical College Admission Test (MCAT). The MCAT is administered twice yearly, in Spring and Fall, under the auspices of the Assessment & Testing Office. Premedical students are urged to schedule this test for Spring of their junior year.

The Dental Admission Test, required of all pre dental students, may be taken by application in Spring or Fall. Pre dental students should plan to take this test in Spring of their junior year. Contact the Assessment and Testing Office for further details.

Courses such as ANTH 3720 (Medical Anthropology), HSC (Medical Care in the U.S.), PHIL 3152 (Biomedical Ethics) and SOC 4720 (Medical Sociology) will be of value to students preparing for interviews at professional schools. Some of these courses may be counted for General Education, depending upon the major.

The sample programs below contain courses required by most professional schools and courses recommended as preparation for national tests. Consult a preprofessional advisor for program modifications.

Sample Programs for Preprofessional Students

(including osteopathic, podiatric, and veterinary medicine)

Medicine

First Year

Fall Quarter

CHEM 1101 (5)
MATH 1130* (4)
ENGL 1001* (4)

Winter Quarter

CHEM 1102 (5)
MATH 1300 (4)
ENGL 1002 (4)

Spring Quarter

BIOL 1301 (5)
CHEM 1103 (5)
MATH 1304 (4)

Second Year

Fall Quarter

BIOL 1302 (5)
CHEM 3301 (5)
MATH 1305 (4)

Winter Quarter

BIOL 1303 (5)
CHEM 3302 (5)

Spring Quarter

BIOL 3120 (4)
CHEM 3303 (5)
STAT 3031 (4)

Third Year

Fall Quarter

BIOL 3140 (4)
PHYS 2701 (4)

Winter Quarter

CHEM 3400 (4)
PHYS 2702 (4)

Spring Quarter

PHYS 2703 (4)

Fourth Year

Completion of Major and General Education requirements. Completion of courses (e.g., BIOL 3150 Principles of Physiology, CHEM 2200 Quantitative Analysis) required by particular professional schools.

Dentistry

First Year

Fall Quarter

CHEM 1101 (5)
MATH 1130* (4)
ENGL 1001* (4)

Winter Quarter

CHEM 1102 (5)
MATH 1300 (4)
ENGL 1002 (4)

Spring Quarter

BIOL 1301 (5)
CHEM 1103 (5)
PSYC 1000 (5)

Second Year

Fall Quarter

BIOL 1302 (5)
CHEM 3301 (5)

Winter Quarter

BIOL 1303 (5)
CHEM 3302 (5)

Spring Quarter

BIOL 3120 (4)
CHEM 3303 (5)
STAT 3031 (4)

Third Year

Fall Quarter

BIOL 3140 (4)
PHYS 2701 (4)

Winter Quarter

CHEM 3400 (4)
PHYS 2702 (4)

Spring Quarter

PHYS 2703 (4)

Fourth Year

Completion of Major and General Education requirements. Completion of courses required by particular professional schools.

Allied Health Fields

The following programs are offered by the university in the allied health fields. The Department of Biological Sciences has an Option in Biomedical Laboratory Sciences (formerly Medical Technology) in its B.S. degree major. Options in Athletic Training/Exercise Physiology, Exercise Nutrition and Wellness, and Pre-Physical Therapy are available in the Department of Kinesiology and Physical Education. The Department of Nursing and Health Sciences has a B.S. degree major in Nursing and Health Sciences. The graduate department of Educational Psychology has an M.S. in Counseling. Both B.S. and M.S. programs in Speech Pathology and Audiology are offered as well as a Clinical Rehabilitative Services Credential. The M.P.A. degree has an option in Health Care Administration. These programs are described in the alphabetical listing in this catalog. Please contact the appropriate departments and schools for additional information.

Certificate in Pre-Physical Therapy

The certificate requirements, as proposed, can be met by completing 55-56 lower division units and 23-24 upper division units as shown below.

I. Lower Division (55-56 units)

BIOL 1301, 1303 Foundations of Biological Sciences (5, 5)

BIOL 2010, 2020 Human Physiology and Anatomy I, II (5, 4)

CHEM 1101, 1102, 1103 General Chemistry (5, 5, 5)

PHYS 2701, 2702, 2703 Introductory Physics (4, 4, 4)

PSYC 1000 General Psychology I (5)

STAT 1000 Elements of Probability and Statistics (5) or STAT 1100 Elements of Descriptive and Inferential Statistics (4)

II. Upper Division (23-24 units)

Completion of the following courses:

BIOL 3005 Introduction to Microbiology (5) or BIOL 4160 Medical Physiology (4)

P E 3305 Structural Kinesiology (5)

P E 3310 Biomechanics (5)

P E 3320 Exercise Physiology (5)

PSYC 4410 Abnormal Psychology (4)

Field Observation and Voluntary Participation

Students enrolled in the program must complete one to three quarters of field observation and volunteer participation in physical therapy at cooperating agencies. Evidence of such fieldwork can be gained by liaison with appropriate personnel at these agencies.

Additional Courses

Additional courses may be needed to meet the requirements of specific programs in Physical Therapy. Examples are given below. Students are advised to consult a preprofessional advisor.

BIOL 4160 Medical Physiology (4)

CHEM 2301/2302 Survey of Organic Chemistry (4, 4)

P E 4340 Motor Development (4)

Pre-Engineering Certificate and Advising

There are no engineering programs at present at Cal State Hayward, but the university does offer a Pre Engineering Certificate Program. Virtually all engineering programs require a similar set of mathematics and science courses to be taken during the first two years of study; these courses are all offered at Cal State Hayward and constitute the Pre-Engineering Certificate Program. In addition, through cross-registration agreements (see catalog listing) with various other institutions, Cal State Hayward students may enroll in certain engineering courses not offered on this campus. In this way, most, if not all, lower division courses required in an engineering program may be completed as a Cal State Hayward student.

However, a student must be cautioned that completion of the pre-engineering certificate does not guarantee admission to any engineering programs. Admission to engineering schools is very competitive, and upper division transfer students may find themselves in an unfavorable position. A student who plans to transfer to a university which offers a B.S. degree in Engineering should contact that institution as soon as possible, in order to determine the likelihood and conditions for acceptance, the equivalence of coursework completed at Cal State Hayward, and minimum GPA requirements. For some schools, it may be preferable for a student to transfer at the lower division level, before completing the pre-engineering certificate.

A student intending to transfer elsewhere to complete engineering degree requirements should declare a major in Chemistry, Computer Science, Geology, Mathematics, Physics, or Statistics at Cal State Hayward. The Pre-Engineering Certificate Program represents excellent preparation for any one of these majors, in the event the student does not transfer. Undeclared majors interested in this certificate should go to the Department of Mathematics and Computer Science (SC N337) for general advising.

The courses required for the Certificate Program in Pre-Engineering are listed below. The minimum required GPA for the awarding of the certificate is 2.0.

Required Courses for Pre-Engineering Certificate (66 units)

First Year

<i>Fall Quarter</i>	<i>Winter Quarter</i>	<i>Spring Quarter</i>
CHEM 1101 (5)	CHEM 1102 (5)	CHEM 1103 (5)
MATH 1304 (4)	MATH 1305 (4)	MATH 2304 (4)
PHYS 1001 (5)	PHYS 1002 (5)	PHYS 1003 (4)

Second Year

C S 1160 (4)	MATH 3320 (4)
MATH 2101 (4)	MATH 3331 (4)
PHYS 3101 (4)	PHYS 3280 (4)

Courses listed under "Second Year" should be taken during the quarter offered.

Pre-Law Studies

The study of law is a postgraduate professional program, usually requiring three years of full-time study beyond the completion of the bachelor's degree. No specific pre-law undergraduate program is required for admission to

law schools. However, for students wishing to focus on legal studies at Cal State Hayward, the [Political Science Department](#) has a Pre-Law option in the Political Science Major.

Students intending to enter law school commonly complete undergraduate majors in political science, economics, business, or history. The pre-law student's undergraduate plan of study should include among its objectives a facility in the proper use of written and spoken English, a sampling of undergraduate law courses, one or more critical/logical thinking courses, and a basic understanding of government and economics. Some law schools recommend that students take a basic accounting course, particularly if they are interested in business or tax law.

Students planning to enter law school should consult a pre-law advisor. Dr. James Fay and Dr. David Baggins of the Department of Political Science, both of whom are attorneys, serve as pre-law advisors. Several other departments also have pre-law advisors.

Most accredited law schools require that applicants complete the Law School Admission Test. The LSAT is typically given in September, December, February, and June at one or more testing centers in the Bay Area. Pre-law students should obtain LSAT registration materials and law school applications early in their final year of college. Copies of these materials can also be secured from the pre-law advisors in the Department of Political Science and from the Career Development Center. The Political Science Department Library also has a copy of the Law School Guidebook and many law school catalogs.

Natural Resources

Students contemplating transferring to various programs in the College of Natural Resources and Sciences at Humboldt State University or the College of Natural Resources at the University of California, Berkeley, can complete a number of the prerequisite courses at Cal State Hayward.

As the requirements differ among the various programs and may change from time to time, it is important to check with the appropriate departments of Humboldt State and U.C. Berkeley about the current information. The following courses at Cal State Hayward serve as prerequisites for most of the Natural Resources majors: BIOL 1301-2-3, CHEM 1101-2-3, MATH 1300, and either PHYS 1101-2-3 or 2701-2-3.

Pre-Theological Studies

The American Association of Theological Schools recommends that students anticipating graduate theological education take a broad liberal arts program leading to the B.A. degree. Cal State Hayward recommends that pre-theology students complete the Religious Studies Option in the Philosophy Major. A reading knowledge of at least one language other than English must be acquired. Students should elect courses which will sharpen their conceptual processes (logic, scientific method, literary or historical research) and should have more than an introduction to the world of people and ideas, the world of nature, and the world of human affairs. It is also possible to complete a minor in religious studies. (See the minor listed in [undergraduate Philosophy chapter](#).) Students planning to enter theological schools should consult the Department of Philosophy (MI 4006) about their major and baccalaureate degree.

* See department for placement tests required prior to registration.

Psychology [PSYC]

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- [PSYCHOLOGY OPTION: LIBERAL STUDIES](#)
- [COURSES](#)

PSYCHOLOGY

Department of Psychology
School of Science
Office: South Science 229
Phone: (510) 885-3484

Professors:

Richard L. Floyd, Nancy S. Harrison, Stuart T. Klapp, Fred I. Leavitt, Eleanor K. Levine (Interim Chair), John D. Lovell, Roy T. Matsumoto, Alan Monat, Allan Netick (Chair on leave), Michael E. Patch, Joan E. Sieber, Gene Steinhauer, Arnold E. Stoper

Assistant Professors:

Eugene Hightower, Marvin Lamb

PROGRAM DESCRIPTION

Psychology is the science of behavior and mental experience. Many psychologists work primarily with normal people to understand how people think, respond to stress, learn and forget, develop into unique personalities, and interact with one another. Some psychologists study abnormal behavior. Others study the behavior and nervous systems of animals in order to find general principles that apply across species. Psychologists apply their knowledge to do therapy and counseling, to improve practices in schools, prisons, and rehabilitation centers, and to enhance performance in industry, business, and the professions.

The Psychology Department offers a major in both the Bachelor of Science (B.S.) and the Bachelor of Arts (B.A.) degrees. These are basic programs; to become a "psychologist" requires graduate training.

The B.A. program is appropriate for most psychology students. It provides a basic understanding of human behavior and motivation that is valuable in many careers in business, government, and education. It also provides the background expected for entry into graduate programs in clinical psychology, counseling psychology, school psychology, health psychology, social psychology, or experimental psychology.

The B.S. programs are designed for more specialized purposes. Students in the B.S. program must select one of the two options in that program: Industrial Psychology or Human Factors. The option in Industrial Psychology provides

preparation for careers related to business, with an emphasis on personnel management. The option in Human Factors Psychology provides preparation for careers in the design of work environments to take account of human limitations and strengths, for example, the design of equipment (computers, aircraft, automobiles) or the design of industrial procedures.

In Psychology's minor program, students can choose courses to complement training in business, communication, health and medicine, law and criminology, statistics, biology, and many other fields. The department also offers a Psychology option of the Liberal Studies major. Of special interest to students in that program might be our courses in developmental psychology, personality, cognitive processes, and learning.

CAREER OPPORTUNITIES

B.A.: Clinical/Counseling/Child Psychologist ■ Community Mental Health employee ■ Experimental Psychologist ■ Human Service Worker ■ Police/Probation Officer ■ Recreation Worker ■ School Counselor ■ Social Worker ■ Special Education Teacher ■ Substance Abuse Counselor

B.S.: Advertising Account Executive ■ Business Executive ■ Career Counselor ■ Employee Counselor and Trainer ■ Human Resource Specialist ■ Personnel Representative ■ Program Evaluator ■ Public Relations Specialist

FEATURES

The Psychology Department's facilities include a fully equipped computer lab, an animal lab, and several labs for studying human behavior. These facilities support an unusual and important characteristic of the department - its emphasis on hands-on student involvement in the study of human and animal behavior through participation in laboratory courses and faculty research, in field trips, and in community volunteer placements.

Both the Psychology Club and Psi Chi (national honor society in psychology) provide opportunities for students to get together to hear speakers and to discuss topics such as career and graduate school opportunities.

All courses required for the psychology B.A. major are offered in the evening program over each three-year cycle. However, the range of choices and flexibility of scheduling is more limited in the evening program. Evening courses fulfilling requirements of the B.S. degree major, option in Industrial Psychology, are offered at the Contra Costa Campus.

MAJOR REQUIREMENTS ■ B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 68 units; the B.A. degree requires a total of 186 units.

I. Core Requirements (32 units)

- PSYC 1000 General Psychology (5)
- PSYC 3090 Methods of Investigation in Psychology (4)
- STAT 1000*+ Elements of Probability and Statistics (5)
- STAT 3010 Statistical Methods in the Social Science (4)
- BIOL 1001, 1002** Introduction to Biology, Lab (5)
- PSYC 3100 Experimental Psychology (5)
- PSYC 4200 Conditioning and Learning (4)

II. Breadth Requirements (20 units)

One from each line required:

- PSYC 3200, 3210, or 3220 (testing/survey and test construction/individual differences) (4)
- PSYC 3500, 4420, or 4610 (social/developmental/personality) (4)
- PSYC 4220, 4345, or 4740 (cognitive/sensory/psycholinguistics) (4)
- PSYC 4310, 4320, 4350 or 4360 (comparative/physiological/heredity/ psychopharmacology) (4)
- PSYC 4210, 4390, or 4620 (theories of learning/theories of personality/history and systems) (4)

III. Laboratory Requirements (4 units)

Any two required:

Two different courses from those listed below. Although courses in this series may be repeated for unit credit, two different courses are required in the Psychology major.

- PSYC 4800 Human Learning and Cognition Laboratory(2)
- PSYC 4801 Learning and Motivation Laboratory (2)
- PSYC 4802 Sensation and Perception Laboratory (2)
- PSYC 4803 Physiological Psychology Laboratory (2)
- PSYC 4804 Social and Personality Laboratory (2)
- PSYC 4805 Comparative Psychology Laboratory(2)
- PSYC 4806 Developmental Psychology Laboratory (2)

IV. Elective Requirements (12 units)

Twelve additional units of permissible upper division psychology courses; or STAT 4000 and eight additional units of upper division psychology courses. A maximum of four units from each repeatable course (PSYC 4800, 4801, 4802, 4803, 4804, 4805, 4806, 4890, and 4900) may be used toward satisfying this requirement.

MAJOR REQUIREMENTS - B.S.

Students in the B.S. degree program must select either the Industrial Psychology option or the Human Factors Psychology option. The major with the option in Industrial Psychology consists of 87 units; the major with the option in Human Factors Psychology consists of 84-92 units; the B.S. degree requires a total of 186 units.

I. Industrial Psychology Option (87 units)

A. Psychology Requirements (58 units)

- PSYC 1000 General Psychology (5)
- PSYC 3090 Methods of Investigation in Psychology (4)
- PSYC 3100 Experimental Psychology (5)
- PSYC 3400 Human Factors in the Workplace (4)
- PSYC 3250, or PSYC 4200 (behavior modification, learning) (4)
- PSYC 3200, or PSYC 3210, or PSYC 3220 (testing) (4)
- PSYC 4820 Industrial Psychology (4)

Two courses from PSYC 4800, 4801, 4802, 4803, 4804, 4805, 4806, Advanced laboratories (4)

Three courses from:

- PSYC 3420 Stress and Coping (4)
- PSYC 3500 Social Psychology (4)
- PSYC 3520 Interpersonal Processes (4)
- PSYC 3540 Groups and Organizations (4)

Twelve additional units of permissible upper division psychology courses, or eight units of Psychology courses and four units of upper division Statistics. Courses designated "Not applicable to the Psychology major" may not be used toward satisfying this requirement.

- B. Other Requirements (29 units)
- ACCT 2210 Accounting for Non-Business Majors (4)
 - MGMT 3600 Theories of Management (4)
 - MGMT 3610 Human Resources Management (4)
 - MGMT 3680 Industrial Relations (4)
 - STAT 1000, or STAT 2010 (introductory statistics*) (5)
 - STAT 3010, or MGMT 3100 (applied statistics) (4)

One course from:

- C S 1020 Introduction to Computers (4)
- C S 1160 Introduction to Computer Science and Programming Methods (4)
- CIS 3270 Fundamentals of Business Programming
- PSYC 4100 Computer Applications in Industrial Psychology
- STAT 3900 Statistical Packages for Data Analysis (4)
- STAT 3910 Statistical Software Design for Microcomputers (4)
- STAT 4000 Analysis of Variance (4)
- STAT 4515 Multivariate Analysis (4)
- STAT 4610 Nonparametric Statistical Methods for the Social Sciences (4)

II. Human Factors Psychology Option (84-92 units)

Students in this option are urged to complete a minor in Statistics, Computer Science, Mathematics, or Physics. Courses can be counted simultaneously toward a minor and a major.

- A. Psychology Requirements (44 units)
- PSYC 1000 General Psychology (5)
 - PSYC 3090 Methods of Investigation in Psychology (4)
 - PSYC 3100 Experimental Psychology (5)
 - PSYC 3400 Human Factors in the Workplace (4)
 - PSYC 4200 Conditioning and Learning (4)
 - PSYC 4320 Physiological Psychology (4)
 - PSYC 4345 Sensation and Perception (4)
 - PSYC 3500 Social Psychology (4) or PSYC 3540 Groups & Organizations (4)
 - PSYC 4220 Cognitive Processes (4) or PSYC 4740 Psycholinguistics (4)

Advanced Labs: One from PSYC 4800, 4801, 4802, 4803, or 4804 (2)

Approved Internship: PSYC 4430 Psychology in the Community (4) or PSYC 4900 Independent Study (4)

- B. Other Requirements (32-40 units)
- Four units from the following:
- C S 1020 Introduction to Computers (4)
 - C S 1160*** Introduction to Computer Science and Programming Methods (4)

Complete the following courses (28-36 units):

- MATH 1300**** Trigonometry and Analytic Geometry (0-4)
- MATH 1304 Calculus I (4)
- MATH 1305 Calculus II (4)
- PHYS 2701, 2702, 2703, or PHYS 1001, 1002, 1003++ (12-15)
- STAT 1000 and 3010 or STAT 3502 and 3503 (8-9)

- C. Elective concentration (8 units)
- Two additional courses, both from the same group:
- Psychology group:* PSYC 3200, 3420, 3500, 3540, 4220, 4740 (These courses cannot also be counted toward the Psychology requirements.)
- Mathematics group:* MATH 2304, 3331

Computer programming group: CS 2360 and four additional units in computer programming courses in the Department of Mathematics and Computer Science.

Statistics group: Eight units of upper division statistics courses, not including STAT 3010, 3502, or 3503

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor in Psychology is designed to provide a general background in psychology to complement training for careers in business and industry, biology, the medical professions, law or criminology, communication, and many other professions. See a psychology department advisor for help in selecting courses to complement your program. The minor consists of 29-35 units.

PSYC 1000 (5)

PSYC 1100 or 3090 (4)

Twenty additional units selected from courses meeting the Elective Requirements in the description of the B.A. major, or PSYC 3100 plus 12 additional units from courses meeting these Elective Requirements. (Notice that PSYC 3100 has 8-9 additional units of prerequisites. See the course description.)

PSYCHOLOGY OPTION: LIBERAL STUDIES

Area I (10 units)

PSYC 1000 General Psychology (5)

STAT 1000 Elements of Probability and Statistics (5)

Area VII, Credential Track, or Area VI, Liberal Arts Track (24-25 units)

Either PSYC 1100 Critical Thinking in Psychology (4) or PSYC 3090 Methods of Investigation in Psychology (4)

One of concentrations (A), (B) or (C) below (20-21 units):

A. Twenty units of upper division coursework in Psychology selected from the B.A. major (20)

B. PSYC 4430 Psychology in the Community (4)

Sixteen units of upper division coursework in Psychology selected from the B.A. major (16)

C. STAT 3010 Statistical Methods in the Social Sciences (4)

PSYC 3100 Experimental Psychology (5)

Twelve units of upper division coursework in Psychology selected from the B.A. major (12)

COURSES

1000 General Psychology (5)[CAN PSY 2]

An introduction to the scientific study of basic processes underlying human and animal behavior; sensation and perception, learning and thinking, motivation, and emotion. (F, W, Sp)

1100 Critical Thinking in Psychology (4)

The role of critical thinking in the scientific study of behavior. Inductive and deductive use of experiments by which selected problems are investigated with emphasis on experimental design and common logical fallacies in interpreting empirical data. Not applicable to Psychology majors. Prerequisite: PSYC 1000. (F, W, Sp)

1300 Personal Growth and Effective Behavior (4)

Critical areas of human life, such as personal growth, social effectiveness, and career adjustment. Insights from research findings of academic psychology and from several popular pathways to growth. CR/NC only. Psychology majors can take this course for university credit, but cannot use it to satisfy a major requirement.

3090 Methods of Investigation in Psychology (4)

Experimental, correlational, and observational methods in the study of psychology with selected examples. Prerequisite: PSYC 1000. (Y)

3100 Experimental Psychology (5)

A laboratory course in the development, design, and execution of psychological experiments, the analysis of data, and the writing of formal research reports. Prerequisites: PSYC 3090 or 1100; STAT 3010, or STAT 3502, or MGMT 3100. Three hrs. lect., 6 hrs. lab. (F, W, Sp)

3200 Psychological Tests (4)

Introduction to selecting and evaluating standardized tests of aptitude, achievement, personality, and other human traits. Validity, reliability, generalizability, and ethics. Prerequisites: PSYC 1000; STAT 1000, and STAT 2010, or STAT 3010. (Y)

3210 Principles of Survey and Test Construction (4)

Construction of survey and test instruments; use of focus groups; sampling; data collection including interviewing and other survey research techniques; data analysis; interpretation and presentation of results. Prerequisites: PSYC 1000; STAT 1000, and STAT 2010 or STAT 3010.

3220 Psychology of Individual Differences (4)

Survey of human traits (including intelligence), and examination of evidence for differences among individuals differing in sex, age, personality, race, etc. Consideration of social implications. Prerequisites: PSYC 1000; STAT 1000 and STAT 2010, or STAT 3010, or STAT 3031.

3250 Behavior Modification (4)

The extension of principles and concepts emerging from the experimental analysis of behavior to problems of behavior modification outside the laboratory. Prerequisite: PSYC 1000.

3300 Psychology of Essential Life Issues (4)

Topics of everyday concern, including self-image, sexuality, death, happiness, personal effectiveness, and love. CR/NC grading only. Psychology majors can take this course for university credit, but cannot use it to satisfy a major requirement. Prerequisite: PSYC 1000 or consent of instructor.

3400 Human Factors in the Workplace (4)

Human factors in tasks involving attention, decision making, and other complex responses. Current findings, methods of research, and applications in industry and other man-machine situations. Prerequisite: PSYC 1000. (Y)

3410 Psychology of Women (4)

Critical examination of data affecting views of and by women, including: socialization of sex-roles, rape, marriage, the family, career barriers, development of stereotypes. Psychology majors can take this course for university credit, but cannot use it to satisfy a major requirement. Prerequisite: WOST 1000 or upper division standing.

3413 Psychic Phenomena: Fact or Fiction? (4)

The evidence from parapsychological research for various aspects of the paranormal, e.g., ESP, psychokinesis, mediumship, psychic healing. The material will be discussed openly and critically. CR/NC grading only. Psychology majors can take the course for university credit, but cannot use it to satisfy a major requirement.

3420 Stress and Coping (4)

A systematic look at the major theories and research about stress and coping, with discussion of applications. Stress and coping will be examined in the context of everyday situations, e.g., illness, death and dying, and the workplace. Prerequisite: PSYC 1000.

3500 Social Psychology (4)

Current theory and research on the individual in society, small groups, and interpersonal interaction. Socialization, social structure, attitude formation, and social identity. Prerequisite: PSYC 1000. (Y)

3520 Interpersonal Processes (4)

Selected topics on the development and maintenance of dyadic relationships; interpersonal attraction through behavior exchange, verbal and nonverbal communication, strategic social behavior and the resolution of conflict. Prerequisite: PSYC 1000.

3540 Groups and Organizations (4)

The behavior of individuals in modern groups and organizations: work groups, universities, and other bureaucracies. Emphasis on theories of problem solving to create satisfying, effective, productive environments within organizations. Prerequisite: PSYC 1000.

3550 Social Influence and Change (4)

Selected topics in the use of persuasion and social power to effect both behavioral compliance and attitude change: Includes problems of effective leadership and intervention as well as resistance to change in applied settings. Prerequisite: PSYC 1000.

4100 Computer Applications in Industrial Psychology (4)

The use of selected microcomputer software with special emphasis on problems of interest to industrial psychology. Spreadsheets, statistical programs, and software construction tools such as "Hypercard." Prerequisite: PSYC 3090.

4200 Conditioning and Learning (4)

Basic principles and results of conditioning and learning experimentation. Prerequisite: PSYC 3090 or 1100. (Y)

4210 Theories of Learning (4)

Survey of theories of learning with emphasis on experimental work arising from them; their underlying assumptions, strengths and weaknesses, practical implications, and methodological approaches to research problems. Prerequisite: PSYC 4200. (Y)

4220 Cognitive Processes (4)

Selected topics in thinking and information processing in humans, e.g., problem solving, language, memory and forgetting, concept formation, attention, creativity, imagery, etc. Various theories and selected experiments are described, analyzed and interpreted. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended. (Y)

4300 Motivation (4)

Nature of primary and secondary drives. Critical analysis of the concept of motivation in relation to behavior,

learning, and performance. Prerequisite: PSYC 4200. (Y)

4310 Comparative Psychology (4)

Survey of the similarities and differences in sensory systems, learning, motivation, social organization, and development of closely related and relatively unrelated animals, including the human species. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended. (Y)

4320 Physiological Psychology (4)

The biological foundations of human and animal behavior, including physiological processes related to sensory and motor activity, perception, learning, thinking, motivation, and emotion. Prerequisite: PSYC 1000. (Y)

4345 Sensation and Perception (4)

The function of the eyes, ears, and other sense organs in bringing information about the world to the brain. The use of this information in perceiving objects and events. Prerequisite: PSYC 1000.

4350 Heredity and Behavior (4)

A consideration of genetic and environmental determinants of behavior and psychological characteristics of animals and humans. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended.

4360 Psychopharmacology (4)

Classification of psychoactive drugs, principles of action, development and testing, effects and dangers, users and abusers, treatment abuse, therapeutic use. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended.

4390 History and Systems of Psychology (4)

Survey of historical developments in the emergence of modern scientific psychology. Contemporary theoretical systems discussed with emphasis on how they approach the recurring problems of psychology. Prerequisites: 16 units of upper division psychology and senior standing.

4410 Abnormal Psychology (4)

The concepts of normality, abnormality, and psychopathology. Symptom syndromes of neurosis, psychosis, and other behavior abnormalities. Methodological problems in the investigation of mental illness and psychotherapy. Prerequisite: PSYC 1000. (Y)

4420 Developmental Psychology (4)

Psychological development across the life span. Affords a developmental perspective of perception, cognition, language, and of emotional, social, and personal behavior. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended. (Y)

4430 Fieldwork in Community Psychology (4)

Work in community agencies. Weekly seminars relate psychological principles to practice. Psychology majors can take this course for university credit, but cannot use it to satisfy any major requirement except as an internship in Human Factors Psychology option, B.S. degree major. May be repeated once for credit. CR/NC grading only. Prerequisites: Consent of instructor. One hr. lect., 6 hrs. act.

4610 Psychology of Personality (4)

Critical review of method and content in the study of personality. Historical development of the field, with attention to recent applications of scientific method to problems of personality. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended. (Y)

4620 Theories of Personality (4)

Undergraduate seminar: survey and analysis of some major theories of personality, including systematic analysis of theory construction. Prerequisite: PSYC 4610, or consent of instructor.

4630 Introduction to Psychotherapy and Clinical Methods (4)

The clinical area of applied psychology, including review of concepts involved in the interview process, principles of psychotherapy, and methods of clinical research. Prerequisite: PSYC 4410 or 4610.

4660 The Psychology of the Healthy Personality (4)

Topics include models of psychological health, maintenance of health across the life span, and the dilemmas women and minorities face in maintaining health in the face of discrimination. Prerequisite: PSYC 1000 or consent of instructor.

4740 Psycholinguistics (4)

Basic psychological aspects of human verbal behavior and related phenomena. The acquisition and development of language, perception of language, and effect of language on thought. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended.

4800 Human Learning and Cognition Laboratory (2)

Selected experiments in human learning, verbal learning, abilities, and problem solving. Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.+++ Prerequisites: PSYC 3100; and PSYC 4200, or 4220, or 4740. Six hrs. lab.

4801 Learning and Motivation Laboratory (2)

Selected experiments in conditioning, learning and motivation, with an emphasis on subhuman species. Experiments will be designed, executed, analyzed and reported. May be repeated up to three times for credit.+++ Prerequisites: PSYC 3100 and 4200. Six hrs. lab.

4802 Sensation and Perception Laboratory (2)

Selected experiments from psychophysics, perception, vision, audition, and olfaction. Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.+++ Prerequisites: PSYC 3100; and PSYC 4320 or 4345. Six hrs. lab.

4803 Physiological Psychology Laboratory (2)

Selected experiments in physiological processes, related sensory and motor activity. Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.+++ Prerequisites: PSYC 3100 and 4320. Six hrs. lab.

4804 Social and Personality Laboratory (2)

Selected experiments in social psychology and personality problem areas. Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.+++ Prerequisites: PSYC 3100; and PSYC 3500 or 4610. Six hrs. lab.

4805 Comparative Psychology Laboratory (2)

Selected experiments on social organization, communication, perception, activity patterns, learning and behavioral development in animals (insects, fish, reptiles, birds, mammals). Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.+++ Prerequisites: PSYC 3100; and PSYC 4310 or 4350. Six hrs. lab.

4806 Developmental Psychology Laboratory (2)

Selected experiments from a human developmental perspective. Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.+++ Prerequisites: PSYC 3100 and 4420. Six hrs. lab.

4820 Industrial Psychology (4)

Applications of industrial psychology concepts and methods to actual cases (e.g., hiring, evaluation, motivation, training, compensation, safety, marketing, total quality management, stress management, morale, ethics/dishonesty, reorganization, human factors). Lecture, case study, individual and group projects. Prerequisite: Senior standing in Industrial Psychology option. (W, Su)

4890 Proseminar (2)

An undergraduate seminar providing an introduction to current topics in psychological research. Topics will vary each quarter. May be taken for credit up to three times. Prerequisites: Senior standing in Psychology major and consent of instructor.

4900 Independent Study (1-4)

* May also be used toward satisfying the General Education Requirement in Mathematics.

** May also be used to satisfy the General Education Requirement in Life Science.

*** Preferred course for students who want additional computer courses.

**** Students with appropriate background can go directly to MATH 1304. These students are excused from MATH 1300.

+ May be taken CR/NC.

++ MATH 2304 is required as a prerequisite to PHYS 1003.

+++ Although courses in the 4800-4806 series may be repeated for credit, two different courses are required for the psychology major.

Public Administration [PUAD]

- [PROGRAM DESCRIPTION](#)
- [UNDERGRADUATE COURSES](#)

PUBLIC ADMINISTRATION

Department of Public Administration
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 4124
Phone: (510) 885-3282

Professors:

Carl J. Bellone, Jong S. Jun (Associate Chair), Richard W. VrMeer (Chair)

Associate Professors:

George F. Goerl, O. Jombo Umeh, Dvora Yanow

Assistant Professor:

Linda Dennard

Adjunct Professors:

Armando Gonzales, Carlos Navarro, Mark Nickerson

Lecturers:

Hillair Bell, Donald Blubaugh, Carol Edlund, Tony Enea, Madeline Fassler, Ted Gaebler, Susan Gonzales, John Holan, Maryann Huckabay, Alton Jelks, Will L. Johnson, Gregg McVicar, Steve Morgan, Glenn M. Shor, Emily Wagner, William Zaner

■ *Institute for Governmental Research:*

Jong S. Jun (Director)

PROGRAM DESCRIPTION

The Department of Public Administration offers primarily graduate courses. See the [Public Administration chapter](#) in the graduate section of this catalog. (*Note: An undergraduate option in Public Affairs and Administration is offered by the [Department of Political Science](#).*)

UNDERGRADUATE COURSES

4800 Public Administration and Society (4)

The historical and political context of public administration; politics and economics of public bureaucracy; managing governmental organizations; public finance and national economy; values, ethics, and public interest; interface between professional administrators and citizens. (A)

4830 Organization Theory and Human Behavior (4)

Classical and emerging theoretical perspectives of human organizations; organizational design and tomorrow's organizations; self and organization; environment and planned change; participative goalsetting and organizational effectiveness. Prerequisite for "Classified Graduate" standing in the MPA program. (A)

4900 Independent Study (1-2)

5000 Philosophy of Public Administration (4)

Critical analysis of emerging domestic and global ideas and issues shaping and being shaped by the public sector; theoretical perspectives on understanding values, ethics, citizenship, public good, and search for democratic administration. Prerequisites: PUAD 4800 and PUAD 4830 (A)

5900 Independent Study (1-2)

Recreation [REC]

- [PROGRAM DESCRIPTION](#)
- [CAREER POSSIBILITIES](#)
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- [MAJOR REQUIREMENTS ■ B.S.](#)
- [OPTIONS](#)
- [MINOR REQUIREMENTS](#)
- [CERTIFICATE PROGRAMS](#)
- [RECREATION OPTION: LIBERAL STUDIES](#)
- [COURSES](#)

RECREATION

Department of Recreation and Community Services
School of Education and Allied Studies
Office: Art and Education Bldg. 246
Phone: (510) 885-3043

Professors:

Susan E. Sunderland (Chair), Doris Yates

Assistant Professor:

Melany Bailey

Lecturers:

Ken Hanley, Michael Shumate

PROGRAM DESCRIPTION

The recreation curriculum, along with other university requirements, is designed to provide students with a sound liberal arts education and preparation for professional positions in any of several recreation, leisure, and human service fields. The purpose of the curriculum is to develop understanding of the importance of recreation and leisure in today's society. Students are provided educational opportunities which will develop their ability to organize, plan, and manage recreation, human services, and community service resources in diverse communities.

CAREER POSSIBILITIES

Adventure Recreation Specialist ■ Camp Counselor/Director ■ Commercial Recreation Assistant ■ Community Education Director ■ Community Recreation Supervisor ■ Convention Manager ■ Employee Fitness Director ■ Facility Manager ■ Industrial Recreation Leader ■ Military Recreation Specialist ■ Park Naturalist ■ Park Ranger ■ Recreation Program Director ■ Recreation Therapist ■ Resort Director ■ Senior Citizen Program Director ■ Student Activities Coordinator ■ Youth Sports Director

FEATURES

Department faculty have developed an advisement program designed to assist students in making appropriate academic and career decisions. Faculty are knowledgeable about major requirements and overall university requirements for graduation. In addition, faculty provide information to students regarding career opportunities in recreation, leisure services, park management and community services.

MAJOR REQUIREMENTS - B.S.

Consult an advisor in your major department for clarification and interpretation of your major requirements. The regular major consists of 85-89 units; the major with an option in Environmental Recreation consists of 89-93 units; the major with an option in Therapeutic Recreation consists of 102 units; the B.S. degree requires a total of 186 units.

I. Core Requirements (49-53 units)

P E 4650; REC 1000, 2200, 2500, 3000, 3300, 3700, 3800, 4000, 4005, 4890 or 4895, 4910 or 4911

II. Recreation Electives (16 units)

Select 16 units from the following: REC 2020, 3100, 3200, 3202, 3205, 3206, 3305, 3310, 3400, 3600, 4010, 4100, 4200, 4300, 4600, 4601, 4605, 4700, 4701, 4705, 4800, 5099, 5600, 5610

III. Supporting Coursework (20 units)

Select 12 units from the following:

A. Human Services Requirement (12 units)

ACCT 2210, 2251, 2252, 2701, 4280; ANTH 3000, 3400*, 3410, 3425, 3430, 3500, 3505, 3720, 3740, 3745, 3840, 3870; BIOL 3031, 3060, 3070, 3110; CRJA 3300, 3610, 3700; ECON 3370, 3375; EPSY 5021, 6124, 6126, 6137, 6139, 6786; ENVT 4100, 4300; E S 3170, 3180, 3305, 3800; GEOG 3000, 3330, 3340, 3360, 3470, 4325; HSC 3200, 3300, 3350, 3400, 4601, 4602; HIST 3000, 3400, 3500, 3503, 3563; HDEV 3600, 3800, 3850, 4001, 4200, 4201;

MGMT 3600, 3610, 3614, 4610; MKTG 2485 or approved substitute; MCOM 4510; POSC 3100, 3120, 3130, 3170, 3330, 3800, 3870, 4171; PSYC 3220, 3400, 3420, 3500, 3510, 3520, 3540; PUAD 4800, 4830; SOC 3410, 3412, 3419, 3420, 3421, 3425, 3520, 3530, 3700, 3705, 3710, 3715, 3720, 3730, 3745, 3750, 4450, 4705, 4716, 4717, 4740, 4750; T ED 3500, 4320, 4600, 5021, 5180, 5240, 5241, 5242; WOST 3100, 3400.

B. Performing Arts and Activities Requirements (8 units)

Activity courses must be in two or more of the following fields: Art, Mass Communication, Music, Kinesiology and Physical Education, Recreation and Community Services, Theatre Arts, or other approved activity area.

OPTIONS

Environmental Recreation

The Environmental Recreation Option prepares students for professional positions in environmental, outdoor, and adventure recreation agencies. Courses will provide students with an awareness of career opportunities and the

importance of the prudent use of outdoor recreation resources. Courses will enhance students leadership skills and improve verbal and non-verbal communication skills. Courses will cultivate management and administrative skill and allow students to participate and experience outdoor recreation. A major with this option consists of 89-93 units. In addition to courses required of all Recreation majors, students must complete the following:

I. Required Courses (apply to Recreation electives in major)

REC 3305 Outdoor Living Skills (4)
REC 4700 Environmental Recreation (4)
REC 4705 Adventure Recreation (4)

II. Communication Requirement

Select 4 units from the following:
SPCH 1000, 1004, 3510, 3520, 4830

III. Environmental Knowledge

Select 8 units from the following (apply to Human Services requirement in major):
ANTH 3000, 3500; BIOL 3031, 3110; SOC 4450

IV. Instruction and Leadership Requirement (4 units)

(apply to Recreation electives in major)
REC 3400 Outdoor Leadership (4)

V. Development of Outdoor Recreation Skills Requirement

Select 4 units from the following (apply to Performing Arts and Activities requirement in major):
REC 2001, 2002, 2003, 2004, 2800

Recreation Therapy

The Recreation Therapy option is designed to prepare students majoring in Recreation to work with people who have special needs in clinical, residential, and community-based agencies. This option is specifically designed to meet the standards developed by the National Council for Therapeutic Recreation Certification (NCTRC) and the California Board of Park and Recreation Personnel Certification. Successfully completing this curriculum will provide students with knowledge competencies necessary to qualify for both the National and State Therapeutic Recreation Certification Exams. The Recreation major with an option in Recreation Therapy consists of 102 units; the B.S. degree requires a total of 186 units. In addition to courses required of all Recreation majors, students must complete the following:

I. Required Courses (35 of the 44 units apply to regular major requirements)

BIOL 2010 Human Physiology and Anatomy I (5)
HDEV 3800 Human Development and Interaction (4) (applies to Human Services requirement)
PSYC 4410 Abnormal Psychology (4)
REC 4600 Recreation Therapy Documentation and Assessment (4) (applies to Recreation electives)
REC 4601 Recreation Therapy Treatment and Program Planning (4) (applies to Recreation electives)
REC 4602 Advanced Recreation Therapy Modalities (3) (applies to Performing Arts/Activities requirement)
REC 4603 Recreation Therapy Programming (3) (applies to Performing Arts/Activities requirement)
REC 4605 Special Populations: Psychomotor Disabilities and Implications (4) (applies to Recreation electives)
REC 4895 Recreation Therapy Intern Placement (1) (applies to Recreation core)
REC 4911 Recreation Therapy Internship (12) (applies to Recreation core)

II. Elective Courses

Select 12 units from the following (8 units apply to Human Services requirement):
CRJA 3100; EPSY 5021, 5610, 5620; HDEV 4300, 4400, 4510, 4700; PSYC 3220, 3250, 3420, 3500, 3520, 3550, 4300; SOC 3419, 3425, 3520, 3715, 3720, 3730, 3750, 4720, 4740

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

Recreation (26-28 units)

I. Core Courses (14-16 units)

- REC 1000 Nature and Scope of Recreation and Community Services(4)
- REC 2200 Programming for Recreation and Community Services Activities (4)
- REC 2510 Community Leadership (2) or REC 2500 Program Fieldwork (4)
- REC 3000 Philosophy of Leisure Studies (4)

II. Electives (12 units)

Select three courses from the following:

- REC 3100, 3200, 3205, 3700, 3800, 4000, 4100, 4300, 4600, 4605, 4700, 4701, 4800; P E/REC 4605, 5600, 5610

Note: A minor in Environmental Recreation is under consideration. If approved, it will appear in the *Class Schedule* and electronic catalog.

CERTIFICATE PROGRAMS

Adult Community Education (33 units)

The Certificate Program in Adult Community Education is designed to provide students with specific skills necessary to work with adult populations. Careers include working with adults in skilled nursing facilities, apartment complexes, divisions of adult education, well-elderly facilities, prisons, halfway houses, the developmentally disabled, municipal park and recreation agencies, YMCA and YWCA's, and other community-based agencies.

A. Core Courses (25 units)

- E S 1001 Ethnic Experience in America I: Minorities (4)
- HDEV 4300 Adult Development (4)
- REC 3100 Lifelong Leisure Transitions (4)
- REC 3205 Volunteer Administration (4)
- REC 4890 Internship Placement Studies (1)
- REC 4910 Recreation and Community Services Internship (8)

B. Electives (8 units)

Select two of the following:

- HDEV 4004, 4005; PSYC 4430; REC 2200, 2500, 3000, 3700, 4600; SOC 3520; SPCH 1000

Commercial Recreation (29 or 33 units)

The Certificate Program in Commercial Recreation is designed to prepare pre- and post-baccalaureate students for positions in commercial recreation settings. Commercial recreation is one of the fastest growing areas in the recreation and leisure professions, and includes management of resorts and hotels, theme parks, travel and tourism, and employee recreation.

The following courses must be taken prior to, or concurrent with, the program: REC 1000, REC 2200, REC 3000, and REC 3700 or equivalents.

- ACCT 2210 Accounting for Non-Business Majors (4) or ACCT 2251, 2252 Principles of Accounting I, II (8 units)
- MGMT 2701 Legal Environment of Business (4)
- MGMT 3600 Theories of Management (4)
- MKTG 2485 Establishing and Managing a Small Business (4)
- REC/P E 4800 Commercial Leisure Services (4)
- REC 4890 Internship Placement Studies (1)
- REC 4910 Recreation and Community Services Internship (8)

Therapeutic Recreation (60 units)

The Therapeutic Recreation Certificate is designed for non-majors and professionals working in the field who are interested in courses designed to satisfy National Council for Therapeutic Recreation certification.

A. Core Requirements (49 units)

- REC 3800 Introduction to Recreation Therapy (4)
- REC 4600 Recreation Therapy: Assessment and Documentation (4)
- REC 4601 Recreation Therapy: Treatment and Program Planning (4)
- REC 4602 Recreation Therapy Modalities (3)
- REC 4603 Recreation Therapy Programming (3)
- P E/REC 4605 Special Populations: Psychomotor Disabilities and Implications (4)
- REC 4895 Recreation Therapy Internship -- Placement (1)
- REC 4911 Recreation Therapy Internship (must be in an approved site) (12)
- BIOL 2010 Human Physiology and Anatomy I (5)
- PSYC 1000 General Physiology (5)
- PSYC 4410 Abnormal Psychology (4)

B. Electives (12 units):

Select three courses from the following:

CRJA 3100; EPSY 5021, 5610, 5620; HDEV 3800, 4300, 4400, 4510, 4700; PSYC 3220, 3250, 3420, 3500, 3520, 3550, 4300; SOC 3419, 3425, 3520, 3715, 3720, 3730, 3750, 4720, 4740, 4750

Volunteer Administration (39 units)

The Certificate in Volunteer Administration is designed to provide students with specific skills necessary to become involved in administering volunteer organizations in community, corporation, and park and recreation agencies.

A. Core Courses (19 units)

- REC 2510 Community Leadership (2)
- REC 3205 Volunteer Administration (4)
- REC 3700 Community Organizations in the Urban Setting (4)
- REC 4890 Internship Placement Studies (1)
- REC 4910 Recreation and Community Services Internship (8)

B. Electives: (20 units)

Select five from the following:

RECREATION OPTION: LIBERAL STUDIES

Area VII, Credential Track, or Area VI, Liberal Arts Track (25 units)

REC 1000 Nature and Scope of Recreation and Community Services (4)

REC 4890 Internship Placement Studies (1)

REC 4910 Recreation and Community Services Internship (8, 12)

Upper division courses in Recreation and Community Services with approval of department advisor (8, 12)

COURSES

1000 Nature and Scope of Recreation and Community Services (4)

[CAN REC 2]

An introductory multi-disciplinary and multi-cultural investigation of the implications of recreation, leisure and learning in the development of individuals and communities. Effect of recreation and community services on human behavior including the effects of ethnicity, dominant culture, age and multi-cultural exposure on leisure participation. Survey of institutions and organizations providing recreation and community services to individuals and groups (A)

2001 Fly Fishing for Health and Wellness (2)

Equipment and design of rods, reels, lines and terminal tackle. Theory and practice of casting techniques and fly presentation. Weekend intensive. Field trip required. Equipment supplied. CR/NC grading only. Four hrs. act.

2002 Introduction to Basic Sea Kayaking. (2)

Introduction to sea kayaking as an environmentally sensitive, lifelong leisure pursuit. Development of paddling, bracing skills, rescue procedures, trip planning, navigation, and understanding of surf zones. Weekend intensive class. A miscellaneous fee will be charged. Consult quarterly schedule of classes for current fee. CR/NC grading only. Four hrs. act.

2003 Mountain Biking for Leisure (2)

Introduction to mountain biking on back country trails. Emphasis on environmentally responsible riding, bicycle maintenance, trail riding techniques for various terrain, trail etiquette, map reading and trip planning. Experiential weekend intensive class. Mountain bicycle required. No previous skills required. CR/NC grading only. Four hrs. act.

2004 Rock Climbing for Personal Growth (2)

Instruction in basic climbing techniques, belaying, repelling, equipment, strategy, planning and safety. Leadership and team concepts demonstrated through practical climbing experiences. Weekend intensive. A miscellaneous fee will be charged. Please consult the quarterly schedule of classes for the current fee. CR/NC grading only. Four hrs. act.

2020 Leadership for College and Community Settings (2)

Theory and practice in evaluating leadership and communication in group settings. Emphasis on exploring the theoretical foundations of individual and group relationships and applying these concepts to working effectively with diverse populations in college and community settings. Prerequisite: instructor's approval.

2200 Programming for Recreation and Community Services (4)

Emphasis on learning, appreciating and experiencing community recreation, education and service program activities including cultural arts and crafts, creative dramatics and dance, group singing, outdoor and social recreation activities. Factors influencing and planning processes and techniques. Planning and conducting activities for groups with special attention to people with disabilities and to ethnic and cultural diversity. (Y)

2500 Program Fieldwork (4)

Field experiences in recreation and community service agencies. Supervision of students by agency and university personnel. One hundred hours of field experience. Repeatable with department consent. CR/NC grading only.

2510 Community Service Learning (2)

Supervised leadership in community education/recreation agencies. Open to both majors and non-majors. Variable hour requirement depending on number of units enrolled. CR/NC grading only. Repeatable with department consent. (A)

2800 Lifelong Leisure Aquatic Activities (4)

Basic principles, practices, skills and techniques of sailing, kayaking, canoeing, rowing, and windsurfing. Participation in these activities and swim test required. Boat maintenance, safety and basic navigation. A miscellaneous course fee will be charged. Please consult the quarterly schedule of classes for the current fee. CR/NC grading only. Three hrs lect., 2 hrs. act. (Sp)

3000 Philosophy of Leisure Studies (4)

Analysis of the roots of current practices, theories and philosophies in the fields of leisure, recreation, human and community service agencies. Leisure cultural differences. Scope and function of adult and community education. Development of one's own philosophy. (F, Sp)

3100 Lifelong Leisure Transitions (4)

Lifelong leisure behaviors and trends. Life transitions and implications for leisure behavior and recreation participation. Emphasis on recreation and education of the adult. (Sp)

3200 Wellness Through Leisure (4)

Theories and concepts of wellness, health and self-efficacy. The importance of leisure, recreation, the environment, education and culture in the development of wellness. Self-responsibility in the pursuit of holistic wellness through leisure. (Y)

3202 Women and Leisure (4)

Exploration of women and their leisure and recreation pursuits from a creative, historical and cultural perspective. Leisure's role in contributing to the quality of life of women. Women's leisure expression as a reflection of societal change.

3205 Volunteer Administration (4)

The skills necessary to manage volunteers and volunteer-based programs in youth and human service organizations. Volunteer recruitment, training, and retention; development and work of boards and committees; long-range planning, program development, public relations, and funding sources and community relations. (W)

3206 California Immigrants As Volunteers (4)

History of immigrants as volunteers. The extent of volunteer involvement, populations served, methods of recruitment, retention, recognition and evaluation. Effects of religion, gender, age and culture on volunteerism.

3300 Leadership in Recreation and Community Services (4)

Identification and analysis of successful leadership techniques. Emphasis on group work and dynamics, communication, budgeting and cultural and ethnic diversity. Leadership supervision of employees, volunteers, and clients using cooperative team building techniques. (W)

3305 Outdoor Living Skills (4)

Introduction to backpacking equipment and clothing, map orientation, wilderness survival and first aid, trip planning and logistics. Practical outdoor experience in developing leadership, group dynamics, problem-solving, and team building skills. Requires one weekend backpacking trip. A miscellaneous course fee will be charged for materials (or facilities). Please consult the quarterly schedule of classes for the current fee. Three hrs. lect., 2 hrs. act.

3310 Personal Leadership Through Outdoor Adventure Challenge (2)

Through experiential based self-discovery students will develop team building, goal setting, problem solving and decision making skills. Through group dynamics and participation in individual and physical challenges, leadership, trust and self-esteem will be developed.

3400 Outdoor Leadership (4)

Emphasis on experiential leadership skills and techniques required to conduct outdoor recreation programs for diverse populations. Assessment of individual abilities in the context of the environmental setting. The application of effective communication for problem-solving and decision making. (S)

3600 Introduction to Recreation Lands and Opportunities (4)

Resources, agencies, experiences and career opportunities offered through national, state, county, regional and municipal recreation and parks districts. Outdoor recreation concepts, management philosophies and policies governing public resources and lands.

3700 Community Organizations in the Urban Setting (4)

Identification and analysis of political, social and ecological resources that have an impact on community recreation and services. Impact of demographics on community services. Community survey methods and techniques. (F)

3800 Introduction to Recreation Therapy (4)

Introduction to theory and techniques used in the practice of therapeutic recreation. Activity analysis, disability awareness, mainstreaming and integration, empowerment, learned helplessness, risk management, and quality assurance. (F)

4000 The Administration of Leisure Services (4)

Techniques of organizational leadership. The skills and duties required of supervisors and administrators. The structure of leisure service agencies. Prerequisite: REC 1000. (W)

4005 Computers in Recreation and Community Services (4)

Computer practicum for recreation and community services. Includes program and facility management, league management, demographic and data review, desk top publishing for flyers, brochures and promotional materials. (S)

4010 Facilitating Outdoor Leadership Programs and Adventure Based Counseling (4)

Current principles, procedures, techniques and foundations in facilitating outdoor adventure based counseling and leadership programs. Developing curriculum, group preparation, implementing and processing safe adventure experience using low and high element ropes courses and natural resources. A miscellaneous course fee and field trip are required. Please consult the *Class Schedule* for the current fee.

4100 Professional Issues in Recreation (4)

Issues having an impact on recreation and community service. Topics include, but are not limited to: ethics, diversity, multi-culturalism, at-risk youth, seniors, persons with disabilities, and environmental health and safety.

4200 Recreation and Healthy Communities (4)

The role of recreation and community services in the creation of healthy urban communities. Spiritual, educational, emotional, physical, economic benefits of prescribed recreation. Emphasis on corporate, education, and community partnerships in addressing community problems.

4300 The Physical Setting of Leisure Services (4)

Recreation and park facilities at the local and regional levels. The relationship of recreation to such factors as open space, urban sprawl and land use. Introduction to concepts of planning and design of recreation and park facilities. (F)

4600 Recreation Therapy Documentation and Assessment (4)

Assessment procedures and instruments used to assure competence in assessment of client function in leisure. Documentation, assessment, regulations in different settings, (i.e.: community, hospital, and clinical settings), protocols and development of individual treatment plans. 50 hours practicum required. (W)

4601 Recreation Therapy Treatment and Program Planning (4)

Theory, techniques and modalities used in recreation therapy. Foundations of leisure counseling and leisure education. Systems theory of program design including individual and group program plans, risk management and quality assurance. 50 hours of practicum required. (Sp)

4602 Advanced Recreation Therapy Modalities (3)

Theory and application of leisure modalities including leisure education, activity adaptation, and equipment modification.

4603 Recreation Therapy Programming (3)

Non-competitive activities to promote self-esteem and self efficacy. Active student learning and participation to demonstrate effective programming techniques. (3)

4605 Special Populations: Psychomotor Disabilities and Implications (4)

(See [P E 4605](#) for course description.)

4700 Environmental Recreation (4)

The impact of governmental policies on the recreation environment. The depletion of resources and its impact on the quality of life. Environmental barriers to recreation participation. Recreation and the changing environment. Recreation resource management practice. The human impact on the environment through recreation participation. (F)

4701 Eco-tourism and World Impact (4)

The social, political, and financial impacts of the adventure industry conducted in third world countries. Emphasis on natural history tours, trekking, mountaineering, rafting and expedition work. Multi-cultural issues and world perspectives on business ethics.

4705 Outdoor Adventure Recreation (4)

Lecture, discussion, and participation in outdoor recreation activities. Includes rock-climbing, sailing, sea kayaking, orienteering, hiking, and mountain biking. Classes on five Saturdays, dates and locations to be announced. A miscellaneous course fee will be charged. Please consult the schedule of classes for the current fee. Three hrs. lect., 2 hrs. act.

4800 Commercial Leisure Services (4)

Leisure services provided by businesses. Activities, program leadership, and supervision in such areas as apartment complexes, theme parks, resorts, private camps, country clubs, and other special facilities. Cross-listed with [Physical Education 4800](#). (Sp)

4890 Internship Placement Studies (1)

Directed individual study of professional practices in recreation and community education agencies. Open only to students who plan to enroll in REC 4910 or 4911 during the following quarter. Prerequisite: minimum 2.0 GPA overall and in major. May be repeated with consent of instructor. CR/NC grading only. (A)

4895 Recreation Therapy Intern Placement (1)

Directed individual study of professional practices in Recreation Therapy Agencies. Open only to students who

plan to enroll in REC 4911 during the following quarter. Prerequisites: minimum 2.0 GPA overall and in major. May be repeated with consent of instructor. CR/NC grading only.

4900 Independent Study (1-4)

4910 Recreation and Community Services Internship (8 or 12)

Field experience in recreation or community education agency. Supervision by agency and university personnel. Minimum of 250 hours for eight units or 400 hours for 12 units of credit. Prerequisite: REC 4890, Senior standing, consent of instructor and minimum 2.0 G.P.A. overall and in major. May be repeated with consent on instructor. CR/NC (A)

4911 Recreation Therapy Internship (12)

Field experience in recreation therapy agency. Supervision by agency and university personnel. Minimum of 400 hours. Prerequisite: REC 4890, senior standing, consent of instructor and minimum 2.0 GPA overall and in major. May be repeated with consent of instructor. CR/NC grading only. (A)

5600 Special Populations: Program Development (5)

(See [P E 5600](#) for course description.)

5610 Special Populations: Practicum (4)

(See [P E 5610](#) for course description.)

5900 Independent Study (1-4)

* Has prerequisite.

Sociology [SOC]

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- [FEATURES](#)
- [MAJOR REQUIREMENTS ■ B.A.](#)
- [MINOR REQUIREMENTS](#)
- [SOCIOLOGY OPTION: LIBERAL STUDIES](#)
- [UNDERGRADUATE COURSES](#)

SOCIOLOGY

Department of Sociology and Social Services
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 3095
Phone: (510) 885-3173

Professors:

Asoke K. Basu, Diane R. Beeson, Benjamin P. Bowser, Benjamin G. Carmichael, Robert G. Dunn, Juan L. Gonzales Jr. (Chair), Terry Jones, Sonjia P. Redmond, Karl L. Schonborn, Basil J. Sherlock, Young I. Song, Willem W. Van Groenou

Assistant Professors:

Nan P. Chico, Efren N. Padilla

PROGRAM DESCRIPTION

Cal State Hayward offers a major in Sociology which leads to the Bachelor of Arts degree. The major contains two options: (1) Sociology and (2) Social Services.

The Sociology option is designed for students with career interests in the public sector or business or entry into law school, public administration, or graduate work in Sociology. In the Sociology Option, students take a series of courses at three distinct levels: global, community, and interpersonal.

The Social Services Option is designed to prepare students for beginning practice in a social services agency or going on to graduate study in social work, counseling or public administration. In the Social Services option, students take a variety of courses including two quarters of field placement, where they work for credit in a social services agency.

The core requirements for all majors include courses in social theory and research methods. The research methods sequence includes training in applied social research and computer applications for the social sciences.

CAREER OPPORTUNITIES

Correctional Officer ■ Criminologist ■ Employee Relations Representative ■ Employment Counselor ■ Human Resource Representative ■ Industrial Sociologist ■ Market Research Analyst ■ Migration Specialist ■ Occupational Analyst ■ Parole Officer ■ Public Health Statistician ■ Public Relations Representative ■ Research Assistant ■ Social Ecologist ■ Social Worker ■ Urban Planner ■ Urban Sociologist ■ Vocational Rehabilitation Counselor

FEATURES

The department faculty includes both sociologists and social workers who have expertise in the areas of family and interpersonal relationships, social theory, drug and alcohol abuse, applied social research, aging, urban sociology, social conflict, international development, social psychology, medical sociology, and minority and immigrant groups.

Students should be aware that the range of choices and flexibility of scheduling is more limited in the evening.

MAJOR REQUIREMENTS - B.A.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 61 units; the B.A. degree requires a total of 186 units.

I. Lower Division (4 units)

SOC 1000 Introduction to Sociology (4)

II. Upper Division (40-52 units)

A. Core Requirements (16 units)

SOC 3310 Current Sociological Theory (4)

SOC 3425 Prejudice and Discrimination (4) or SOC 3520 Sociology of Minority Groups (4)

SOC 4111 Methods of Sociological Research I (4)

SOC 4112 Methods of Sociological Research II (4)

B. Option Requirement (36 units)

Elect Option 1 or Option 2

1. *Sociology Option (36 units)*

a. Two courses on international perspectives:

SOC 3100 Seminar in Human Ecology (4)

SOC 3200 Introduction to Population Analysis (4)

SOC 3431 Seminar in World Development (4)

SOC 4450 Urban Sociology (4)

b. Two courses on social diversity:

SOC 3410 Sociology of the Family (4)

SOC 3415 Sociology of the African American Family (4)

SOC 3416 Sociology of the Mexican American Family (4)

SOC 3417 Sociology of the Asian American Family (4)

SOC 3420 Social Inequality (4)

SOC 3425* Prejudice and Discrimination (4)

SOC 3520* Sociology of Minority Groups (4)

c. Two courses on the social sources of individual behavior:

SOC 3413 Sociology of Parenting (4)

SOC 3500 Sociology Psychology (4)
SOC 3750 Alcohol and Drug Abuse (4)
SOC 4740 Criminology (4)

d. Option Electives: Complete 12 units from upper division Sociology courses. Up to 12 units of upper division Statistics, selected under advisement, may be counted as Sociology electives.

2. *Social Services Option (36 units)*

SOC 3700 Introduction to Social Services (4)
SOC 3710 Social Policy (4)
SOC 4121** Field Practice (8) (4 units each)
SOC 4711** Practice Theory I (4) (2 units each)
SOC 4716 Social Work Theories and Methods or
SOC 4717 Advanced Social Work (4)
SOC 3720 Human Behavior & Social Environment (4)

Option electives: Complete 8 units from upper division Sociology courses. Up to 8 units of upper division Statistics courses, selected under advisement, may be counted as Sociology electives.

III. Courses in Supporting Fields (5-17 units)

STAT 1000 Elements of Probability and Statistics (5)
Option Electives (see above for Statistics substitutions for Sociology electives) (0-12)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 28 units and must be declared by the end of Junior year.

I. Lower Division (4 units)

SOC 1000 Introduction to Sociology (4)

II. Upper Division (8 units)

SOC 3000 Introduction to Sociological Research (4)
SOC 3310 Sociological Theory (4)

III. Electives (16 units)

Select 16 units from any other 3000 or 4000 level sociology courses. Statistics 1100 or any other Statistics course may be substituted for one Sociology course in course in III.

Minor/Certificate Program in Youth Services Administration

See the [Youth Services Administration chapter](#) in this catalog for description.

SOCIOLOGY OPTION: LIBERAL STUDIES

Area I (4 units)

SOC 1000 Introduction to Sociology (4)

Area VII (Credential Track) or Area VI (Liberal Arts Track) (24 units)

SOC 3310 Sociological Theory (4)

SOC 3000 Introduction to Sociological Research (4) or SOC 4111 Methods of Sociological Research I (4)

Four additional upper division Sociology courses (16)

UNDERGRADUATE COURSES

1000 Introduction to Sociology (4)

[CAN SOC 2]

Introductory analysis of (a) the structure and functioning of human groups and (b) interrelations between groups; changes in (a) and (b). (A)

1100 Critical Thinking about Social Problems (4)

Factual and evaluative considerations in the definitions, explanation, and resolution of social problems. Analysis and criticism of current approaches to social problems focusing on logical procedures and fallacies in thinking.

1505 Introduction to Youth and Human Services Organizations (2)

The private, non-profit youth and human services organizations available in most communities, their history, philosophy, and programs. The role of professional leadership and the skills and attitudes necessary for success. (F, Sp)

3000 Introduction to Sociological Research (4)

Methodological problems in sociology in relation to the analysis of social organizations; research strategies; utilization of associated laboratory exercises to illustrate the important aspects of the research process in sociology. Prerequisite: SOC 1000. (Y)

3100 Seminar in Human Ecology (4)

Introduction to theory and research on human ecosystems, with their interrelated components of population, environment, technology, and organization. Forms of social organization which result from the interaction of the components. Prerequisite: SOC 1000.

3200 Population Analysis (4)

Population growth, distribution and composition. Introduction to population theories and analytic techniques. Individually supervised student projects. Three hrs. lect., 2 hrs. lab. Prerequisite: SOC 1000.

3310 Sociological Theory (4)

Critical analysis of the works of leading sociological theoreticians from the middle of the 19th century to the present. Prerequisite: SOC 1000. (Y)

3410 Sociology of the Family (4)

The family with respect to its institutional, organizational and interactional character. Comparative study and analysis. Prerequisite: SOC 1000. (Y)

3411 Sociology of Sex Roles (4)

Variations in sex roles with emphasis on sociological research. Social definitions of maleness and femaleness. Popular theories purporting the superiority of either gender. Prerequisite: SOC 1000. (Y)

3412 Marriage and Sex (4)

Social norms and practices surrounding marriage, love, and sex in American society. Emphasis on premarital sex, mate selection, marital compatibility, marital power, and marriage in the middle and later years. (Y)

3413 Sociology of Parenting (4)

Exploration of practical and theoretical issues in contemporary parenting. Various approaches to childrearing examined and critiqued from a sociological perspective. Parent-child interaction, working mothers, nurturing fathers, single parenting, joint custody, family systems, blended families, and society's impact on parenting.

3415 Sociology of the African American Family (4)

Sociological analysis of the African American family and family life. Emphasis on sociological theory and research focusing on African American families and family life. Application of social systems approach emphasizing the interrelationships of social and institutional structure with the various subsystems of the African American family. Prerequisite: SOC 1000.

3416 Sociology of the Mexican American Family (4)

Family in Mexican American culture, the roles of family members in intracultural and intercultural relations. Prerequisite: SOC 1000.

3417 Sociology of the Asian American Family (4)

Family in Asian American culture. The roles of family members in intracultural and intercultural relations. Prerequisite: SOC 1000.

3419 Death and Dying (4)

Trends and patterns in death and dying including historical perspectives, death in popular culture, demography of death, medical technology and dying, dying patient's perspective, survivors, and ethical dilemmas of death and dying.

3420 Social Inequality (4)

Nature, origins, forms, and consequences of structured inequalities. Focus on the material circumstances, life styles, and life chances of social classes, including minorities. Prerequisite: SOC 1000.

3421 Sociology of Popular Culture (4)

Sociological analysis and interpretation of the social structure and contents of popular culture, including television, music, sports, film, and magazines. Critical examination of ideological and behavioral themes and functions, e.g. class, race, gender, authority, deviance, and protest.

3423 Postmodern Society (4)

The emergence of postmodern society as a new type of social order. Survey of technological, economic, social, cultural, and intellectual changes in contemporary society with an emphasis on the interrelationship of these to new modes of social and personal existence.

3425 Prejudice and Discrimination (4)

Identifying overt, covert, and subtle discrimination, prejudice, stereotyping, and scapegoating on the basis of such factors as race, sex, class, disability. Legislative and social policy remedies, outcomes.

3431 Seminar in World Development (4)

Critical review of social change and ideas about development as they affect villagers, the urban poor, ethnic and racial minorities, and military and industrial elites. The conflict between the rich and the poor in an international context.

3432 Discover India (4)

A 23-day guided journey of cities and institutions in India to learn about cultural, ecological, historical, and social aspects of Indian civilization. Contacts with artists and scholars. Cross-listed with [ANTH](#), [ART](#), and [HIST 3432](#).

3480 Violence and Conflict (4)

Conduct, causes, and consequences of violent conflicts between individuals, groups, organizations, communities, societies. Resolution techniques utilizing violence, nonviolence, mediation, peacekeeping. Prerequisite: SOC 1000. (Y)

3500 Social Psychology (4)

Current theory and research on the individual in society, small groups, complex organizations, and interpersonal interaction. Socialization, social structure, attitude formation, and group structure. Prerequisite: SOC 1000. (A)

3501 Love and Friendship (4)

The social origins of love and friendship. How individuals learn to love, draw out love in others. Types of love and types of marital-love relationships. Levels and types of friendship and their social significance.

3505 Sociology of Emotions (4)

Theoretical and substantive issues in the sociology of emotions. Social psychological focus on the influence on emotional experiences of social structure and the reciprocal effects of emotional expression on social conditions. Particular attention to the role of emotions in strengthening or weakening social solidarity.

3510 Sociology of Identity (4)

The social nature and bases of identity formation in groups and individuals, including the changing identities of race, ethnicity, nationality, gender, sexuality, consumption, and class. Historical perspective on the problematization of identity resulting from shifts in social, cultural, economic, technological, and power relations in the United States and the world including the phenomenon of transnationalism.

3520 Sociology of Minority Groups (4)

Sociological and social-psychological theories on minority status and minority relations with special emphasis on racial, ethnic and sexual minorities in the United States. (Y)

3525 The African American Male (4)

Sociological analysis of the adolescent African American male in the urban United State. Application of the social systems approach with special emphasis on the role of race, class, family, and institutional structures in the adolescent African American male. Prerequisite: SOC 1000.

3610 Sociology of Religion (4)

Functions of religion in society, the interrelations between religion and social structure, religious authority and leadership, the nature of religious movements. Prerequisite: SOC 1000.

3620 Sociology of Education (4)

Institutional character of education; the relationship of education as a social institution to aspects of political, economic and family organization; social relations within the school; school culture and roles. Prerequisite: SOC 1000.

3700 Introduction to Social Services (4)

Issues regarding social service policies and the delivery of services to youth, elderly, families and other populations in need. History of social services in the U.S. Observation of agency structure, philosophy, and service delivery. Prerequisite: SOC 1000. (Y)

3705 Financial Administration of Youth Agencies (4)

The budgeting process and fund-raising in voluntary youth and human services organizations. Budget development, analysis, and control; product sales; special events; foundation proposals; support campaigns; and

United Way requirements and regulations. Recommended prerequisite: REC 3205. (Sp)

3710 Social Policy (4)

Policy affecting social services including influence of values on public policy, and impact of these policies as they affect minorities. Prerequisites: SOC 1000. (Y)

3715 Seminar in Social Services for the Elderly (4)

Special problems in providing social services for the elderly. Mental health and aging; management and social policy of aging programs and services. Prerequisite: SOC 1000.

3720 Human Behavior and Social Environment (4)

The adaptive and maladaptive adjustment of individuals, groups, and communities to changes in environments. Development of a system approach to change.

3730 Juvenile Delinquency (4)

Juvenile justice system and the theories seeking to explain juvenile delinquency. Various methods used to prevent, treat and rehabilitate youthful offenders. Prerequisite: SOC 1000. (Y)

3745 Social Deviance (4)

Formation and composition of various subcultures whose norms and values conflict with those of wider society. Prerequisite: SOC 1000. (Y)

3750 Alcohol and Drug Abuse (4)

Social issues involved in alcohol and drug abuse with assessment of sociological theories of drug abuse and prevention. Social problems associated with misuse of alcohol, narcotics, and other drugs. (Y)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Sociology major; a maximum of 4 units will be accepted toward the Sociology minor. CR/NR grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

4111 Methods of Sociological Research I (4)

The nature and application of the scientific method in social research. The use of different techniques for specific problems; descriptive and analytical procedures employing the statistical, the historical, and comparative methods. Use of such research instruments as the interview, the questionnaire, and observation. Analysis of data and reporting of results. Individual projects. Two hours lect., 4 hrs. lab. Prerequisites: SOC 1000, STAT 1000. (Y)

4112 Methods of Sociological Research II (4)

The design of sociological studies. Advanced problems of sampling and measurement. Individual projects and instruction. Two hrs. lect., 4 hrs. lab. Prerequisite: SOC 4111. (Y)

4121 Field Practice (4)

Placement of students with suitable community agencies for supervised instruction. May be taken twice for unit credit. Credit/No Credit grading only. Prerequisites: senior standing; SOC 3700 and consent of instructor. To be taken concurrently with SOC 4711 by Sociology Majors; to be preceded by or taken concurrently with SOC 4705 by Youth Services Administration Minors. (Y)

4450 Urban Sociology (4)

Development of metropolitan areas as distinctive patterns; problems presently facing this population in urban growth, transportation, race relations, poverty, housing, and education. Prerequisite: SOC 1000. (Y)

4705 Senior Seminar in Youth Services Administration (2)

A seminar focusing on theories and practices in administration of youth services organizations. To be taken

concurrently with or preceded by an internship course with a youth services placement. Prerequisite: senior standing. (Sp)

4711 Practice Theory (2)

Seminar utilizing theoretical material in social welfare, sociological, and social science literature, in order to compare it with the accompanying field experience. May be taken twice for unit credit. Prerequisites: senior standing; SOC 3700 and consent of instructor. To be taken concurrently with SOC 4121. (Y)

4716 Social Work Theories and Methods (4)

Theories, methods, and skills of professional practice, including adversary, conciliatory, developmental, and restorative processes. Techniques of casework, group work, and community organization. Prerequisites: SOC 3700 and junior standing.

4717 Advanced Social Work Theories (4)

Continuation of SOC 4716 at an advanced professional level. New methods of crisis intervention, transactional analysis, and behavior modification. Prerequisites: SOC 4716 or consent of instructor, and senior standing.

4720 Medical Sociology (4)

Sociocultural and interactional components in the etiology and treatment of illness (physiological, psychosomatic and "mental"); medical and paramedical professions. Prerequisite: SOC 1000.

4740 Criminology (4)

Meaning of crime, its origins and its functions; current practices in respect to the identification and treatment of criminal behavior. Prerequisite: SOC 1000. (Y)

4750 Child Welfare (4)

Trends in public policy regarding programs for the protection and care of the child in American society. Conditions pertinent to the socialization of the child; the implications of these conditions for the development of such programs as foster care, adoptions, institutions, school social work, and corrections. Prerequisite: SOC 1000. (Y)

4900 Independent Study (1-4)

* If not taken for core requirements.

** Must be taken twice for credit.

Special Majors and Certificates

- [PROGRAM DESCRIPTION](#)
- [MAJOR REQUIREMENTS - B.A./B.S.](#)
- [SPECIAL CERTIFICATE](#)

SPECIAL MAJORS AND CERTIFICATES

Curriculum and Academic Programs

Office: Warren Hall 859

Phone: (510) 885-3716

Professor:

Leigh W. Mintz (Associate Vice President, Curriculum and Academic Programs)

PROGRAM DESCRIPTION

The purpose of the Special Major and the Special Certificate programs is to allow students, with the advice and approval of knowledgeable faculty and administrators, to design their own academic programs tailored to their unique needs and interests.

An essential feature of any Special Major program is its interdisciplinary nature. At least two separate degree-granting programs must be involved. An undergraduate Special Major must be approved no later than the time when the student has 40 quarter units of work to complete in the proposed major and 60 units for the degree. This is to insure that a significant portion of the program is planned in advance by the student and his/her faculty advisers. The diploma will read *Special Major In* (program title).

The Special Major program should not be seen as a device to avoid certain requirements of a regular major, nor as a means to gain admission to an impacted program. Likewise, a Special Major cannot be developed in areas such as architecture, engineering, and home economics where the campus currently lacks the necessary faculty expertise and physical facilities. Finally, a Special Major is not a self-study, independent study, or external degree program.

MAJOR REQUIREMENTS - B.A./B.S.

The university offers both the B.A. and B.S. degrees with a Special Major. There are no clearly defined differences between the two degrees, although B.S. degrees tend to be applied programs, while the B.A. is usually considered a liberal arts and sciences degree. B.A. degrees require 186 units; B.S. degrees require 186-198 units. Normally, the type of degree awarded for a Special Major reflects the degrees offered by the involved departments. To be eligible for a Special Major, a student must have a cumulative GPA of at least 2.30. A Special Major must be a coherent program organized around a sound academic theme. The title of a Special Major should be short (three or five words) and should describe the central academic theme of the program, not the student's career objectives unless the two coincide.

A Special Major must be fully approved before the student has fewer than 40 quarter units to complete the major and 60 for the degree, must contain 52-93 quarter units of which at least 36 quarter units are upper division (junior/senior level). Coursework in at least two different disciplines is required.

Courses in the Special Major are not applicable to the General Education-Breadth Requirements. (However, previously completed transfer evaluations will not be reevaluated). A student can take courses for G.E. purposes in departments involved in the major. However, any individual course used for G.E. cannot also be used in the major. Only one course from a department involved in the major can be applied to G.E.

A Special Major must comply with the standard graduation requirements for all students listed in the catalog chapter entitled Undergraduate Graduation Requirements. (These include minimum units in residence, minimum units of credit, minimum 2.00 grade point averages, the U.S. history and institutions requirement, and the Writing Skills requirement if the student started working on the present degree on or after Fall Quarter, 1977.)

Procedure

A student who contemplates developing a Special Major must have an overall CSUH grade point average of at least 2.30 ("C+," Satisfactory). Forethought and planning need to precede any formal action. An information packet is available from the Admissions and Records Information Counter in the Lobby of Warren Hall and in the Office of Curriculum and Academic Programs, WA 859.

The prospective Special Major student must prepare a one page prospectus of at least 200 words describing the theme or central academic focus of the proposed program (including the departments to be involved), the reasons why the objective cannot be fulfilled through a regular major, the academic and experiential background the student will bring to the program, the occupational goals of the student in relation to the proposal, the approximate time frame for completion of the major and the degree, and other pertinent information. A sample prospectus for a hypothetical Special Major is included in the information packet. The student must also contact three faculty advisers in the involved departments, secure their support, and nominate them as his/her Special Major committee. (One of these faculty should be designated as chair of the committee.)

The prospectus and the names of the three faculty advisers (and their departments) must be submitted to the Office of Curriculum and Academic Programs before the student has fewer than 40 units left to complete in the proposed major and 60 units in the degree.

If the proposal appears academically sound and logistically feasible, the Associate Vice President, Curriculum and Academic Programs (AVP hereafter) will forward copies of it to the proposed faculty committee members along with an explanation of the Special Major policies and procedures, copies of the student's transcripts, and a form for development and approval of the specific program of courses.

The three-person committee and the student must meet at a mutually acceptable time to design the program (i.e. to prepare the list of required and elective courses). When this is done, the form is completed, signatures of approval are affixed, and it is returned to the AVP. The AVP circulates the proposal to the deans of the involved schools for commentary. After reviewing any comments, the AVP will act on the proposal. If it is approved, a final copy is typed and the AVP and the student sign it. When the student comes in to sign and receive a copy, a Change of Major form must be submitted. The student will also be informed of the school from which he/she will graduate.

General Education

All students must also complete the general education-breadth and other graduation requirements for the baccalaureate degree. Normally, courses used for the Special Major can not be used for G.E., but transfer G.E. evaluations will not be redone. Check your catalog or see an advisor at the University Advisement Center for more information.

SPECIAL CERTIFICATE

A program leading to the award of a Special Certificate must consist of at least 20 quarter units of upper-division and/or graduate courses. A minimum grade point average of 2.00 is required for all the courses comprising the Special Certificate program. The program must provide a logical and coherent pattern of preparation for a limited objective. The title of the proposed certificate should be brief (three to five words) and must carry no connotation of meeting a licensing requirement for professional practice.

Procedure

The student develops a proposed program with the advice and approval of a faculty member knowledgeable in the field of study. A typed copy of the proposed program, with adviser and student approval, is forwarded by the adviser to the dean of the school in which the preponderance of courses will be taken. If the dean approves, he or she signs and sends the proposal to the Associate Vice President, Curriculum and Academic Programs. The Associate Vice President sends a copy of the proposal to each of the other three school deans. The deans have 10 working days to enter an objection. If none is received and the Associate Vice President judges the proposal to be sound, the program will be approved. If any school dean objects, he or she must file written objections with the Associate Vice President within the 10 days. These will be considered by the Associate Vice President in deciding whether or not to approve the program. The student is notified in writing by the Associate Vice President about the final action on his/her proposal. A copy of an approved program is filed in the student's folder in the Registrar's Office. Upon completion of the Special Certificate program, the student applies to the Registrar and pays the fee to receive the certificate.

Speech Communication [SPCH]

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SPEECH COMMUNICATION

Department of Speech Communication
School of Arts, Letters, and Social Sciences
Office: Robinson Hall 220
Phone: (510) 885-3118

Professors:

John C. Hammerback, Daniel S. Prentice (Chair), Jack A. Samosky, Gale Young

Associate Professors:

Sally K. Murphy, Anne L. Pym

Lecturers:

Deborah M. Alexander, Karen L. Fritts, Agha Saeed

PROGRAM DESCRIPTION

The Major in Speech Communication is offered to students interested in pursuing one or more of the following goals: (1) a liberal education; (2) education, knowledge, and training in areas important to concerns in business and industry, in law, and in the ministry; (3) a teaching credential; and (4) preparation for graduate study. The Department of Speech Communication offers a Bachelor of Arts major with a choice of five options: Interpersonal Communication, Organizational Communication/Public Relations, Public Communication, Intercultural Communication, and General Speech Communication.

CAREER OPPORTUNITIES

Business Executive ■ Communications Specialist ■ Consultant ■ Corporate Communications Director ■ Customer Service Representative ■ Debate Coach ■ Talk Show Host ■ Employee Relations Representative ■ Human Resource Administrator ■ Impression Management Specialist ■ Interviewer ■ Librettist ■ Employee Relations Specialist ■ Professor/Teacher ■ Public Information Specialist ■ Salesperson ■ Trainer ■ Writer

FEATURES

In addition to classroom study of interpersonal, intercultural, organizational, and public communication, we sponsor a Communication Laboratory open to the campus community that provides communication-related support services. Upper division Speech Communication majors and graduate students serve as tutors who help students research, organize, outline, and deliver oral presentations. We also offer on- and off-campus internship programs for credit and support a wide range of intercollegiate speech and debate activities. The Forensics Program provides opportunity in both competitive and non-competitive events. Each year the department awards to majors a Robinson and a Jacobsen Scholarship which range from \$250 to \$1,000. The Rhetorical Criticism Conference, inaugurated in 1966, brings students to campus from across the United States. Student-scholars present papers to professor-critics who critically review and respond to their work. Commended papers are presented to the entire conference and published in the annual conference journal. This scholarly exchange of ideas provides not only suggestions for improvement in current work by student participants, but stimulates further scholarship in rhetorical and communication criticism.

MAJOR REQUIREMENTS - B.A.

Because requirements are subject to change, consult your advisor in your major department for clarification and interpretation of your major requirements. The major consists of 74-78 units in all options. The B.A. degree requires 186 units.

I. Required Core for All Options (26 units)

Group A (2 units)

SPCH 4183 Speech & Debate Activities Workshop (1) or
SPCH 6200 Internship in Speech Communication (1)

Group B (12 units)

SPCH 3411 Argumentation & Debate (4)
SPCH 3485 Power and Use of the Human Voice (4)
SPCH 3510 Small Group Communication (4)

Group C (8 units)

Choice of two:

SPCH 4201* Comparative Traditions of Rhetoric (4)
SPCH 4550* Communication Criticism (4)
SPCH 4810* Communication Theory (4)

Group D (4 units)

Choose one:

SPCH 4830* Intercultural Communication (4)
SPCH 4860* Ethnic Public Address (4)

II. Option Requirements

Thirty-two (32) units are required for all options, except Intercultural Communication which requires 36 units.

Students must select one of the following options:

A. Interpersonal Communication Option (32 units)

1. Required (8 units)

SPCH 4870 Methods of Research in Speech Communication (4)
SPCH 4875 Senior Seminar (4)

2. Select three courses (12 units)
SPCH 4840 Organizational Communication (4)
SPCH 4850 Female/Male Communication (4)
SPCH 4855 Family Communication (4)
SPCH 4858 Intimate Communication (4)
SPCH 4880 Communication and Conflict Resolution (4)
3. Select three advisor-approved courses (12 units) outside the department from the university course inventory available from your advisor. A wide range of elective courses for this option is available. For example, students may select courses in Ethnic Studies, Human Development, Sociology, and/or Women's Studies which examine interpersonal relationships in work and family settings. A sample of such courses includes: E S 3555 Asian American Family Patterns, HDEV 4710 The Child in the Family and the Community, SOC 3415 Sociology of the African American Family, and WOST 3550 Women, Work, and Family Life.

B. Organizational Communication/Public Relations Option (32 units)

1. Required (12 units)
SPCH 3530 Interviewing Principles & Practices (4)
SPCH 4840 Organizational Communication (4)
SPCH 4870 Methods of Research in Speech Communication (4)
2. Select one course (4 units)
SPCH 3540 Business and Professional Presentations (4)
SPCH 4350 Advanced Public Speaking (4)
3. Select one course (4 units)
SPCH 4830* Intercultural Communication (4)
SPCH 4860* Ethnic Public Address (4)
4. Complete three advisor-approved courses from Group I, II or III (12 units).

Group I -- Marketing Focus: MKTG 3401 Introduction to Marketing Management (4), 3410 Advertising Management (4), 3423 Personal Selling (4), 3495 Administrative Communication (4), 4414 Promotion Management (4), 4415 Corporate Communications (4), 4422 Sales Training (4)

Group II -- Mass Communication Focus: MCOM 2200 Introduction to Journalistic Writing (4), 3010** News Reporting & Writing (4), 3340** Graphic Communication (4), 4050** Theories of Mass Communication (4), 4110 International Communication (4), 4510 Public Relations Theory Practice (4), 4530 The Advertising--Public Relations Campaign (4)

Group III -- Management Focus: MGMT 3600 Theories of Management (4), 3614** Organizational Behavior (4), 4610 Human Resources Training and Management Development (4); PUAD 4800 Public Administration & Society (4) 4830 Organizational Theory & Human Behavior (4)

C. Intercultural Communication Option (36 units)

1. Required (12 units)
ANTH 2300 Cultural Anthropology (4)
SPCH 4830* Intercultural Communication (4) or SPCH 4860* Ethnic Public Address (4)
SPCH 4870 Methods of Research in Speech Communication (4), or 4875 Senior Seminar (4)
2. Select one course (4 units)
SPCH 4840 Organizational Communication (4)

SPCH 4850 Female/Male Communication (4)
SPCH 4855 Family Communication (4)
SPCH 4858 Intimate Communication (4)

3. Select two courses (8 units)
E S 1000 Ethnic Experience in America I: Minorities (4)
E S 1002 Ethnic Experience in America: Patterns of Immigration and Migration (4)
SOC 1000 Introduction to Sociology (4)
SOC 3520 Sociology of Minority Groups (4)
4. Select three advisor-approved courses (12 units) outside the university course inventory available from your advisor. A wide range of elective course offerings for this option is available. For example, you may choose three courses focusing on one ethnic group or one course from three ethnic groups. You may choose to specialize in ethnic writers, ethnic film, family, women, or immigration issues. A sample of such courses include: E S 2125 The Black Esthetic, 2300 Blacks in Film, 2410 Mexican American/Latino Perspectives in Film, 3000 Ethnic Writers, 3003 Black Women Writers, 3145 African American Music, 3203 Latino Writers, 3940 Immigrant and Refugee Women, 3955 Asian American Family Patterns; SOC 3416 Sociology of Mexican American Family.

D. Public Communication Option (32 units)

1. Required (16 units)
SPCH 4411 Principles of Argumentation (4)
SPCH 4460 American Public Address (4)
SPCH 4600 Modern Rhetorical Theory (4)
SPCH 4860 Ethnic Public Address or upper division SPCH elective (4)
2. Select one course (4 units)
SPCH 4550 Communication Criticism (4)
SPCH 4610 The Rhetoric of Popular Culture (4)
3. Select three advisor approved courses (12 units) outside the department from the university course inventory available from your advisor. A wide-range of courses is available, for example: ENGL 4720 Mythology (4), 4745 Film Criticism (4); HIST 3417 The United States: Recent American History (4), HIST 3571 Women in American History (4); MCOM 3240 Public Opinion (4), 4500 Women in the Media (4); PHIL 3502 Social and Political Philosophy (4), 3510 Human Rights and Social Justice (4); POSC 3310 Political Parties and Campaigns (4), 3703 American Political Thought (4).

E. General Speech Communication Option (32 units)

1. Required (12 units)
SPCH 4870 Methods and Research in Speech Communication (4)
Select 4 units from the following:
SPCH 4183 Speech and Debate Activities Workshop (1-3)
SPCH 6200 Internship in Speech Communication (1-4)
Select 4 units from the following:
SPCH 4201 Comparative Traditions of Rhetoric (4)
SPCH 4550 Communication Criticism (4)
SPCH 4810 Communication Theory (4)
2. Select one course (4 units) from Group A, two courses (8 units) from Group B, and two courses (8 units) from Group C.

Group A -- Cultural Studies: SPCH 4210 Non-Western Rhetoric (4), 4700 Topics in Speech Communication (4), 4830 Intercultural Communication (4), 4860 Ethnic Public Address (4)

Group B -- Organizational/Interpersonal Studies: SPCH 3530 Interviewing Principles and Practices (4), 3540 Business and Professional Presentations (4), 4700 Topics in Speech Communication (4), 4840 Organizational Communication (4), 4850 Female/Male Communication (4), 4855 Family Communication (4), 4858 Intimate Communication (4), 4880 Communication and Conflict Resolution (4)

Group C -- Rhetorical Studies: SPCH 4230 Rhetoric of Social Movements (4), 4350 Advanced Public Speaking (4), 4411 Principles of Argumentation (4), 4460 American Public Address (4), 4600 Modern Rhetorical Theory (4), 4610 The Rhetoric of Popular Culture (4), 4700 Topics in Speech Communication (4).

III. Speech Communication Electives

Select 16 units from the following:

SPCH 2310 Oral Interpretation of Literature (4), 3515 Persuasion (4), 3520 Nonverbal Communication (4), 3530 Interviewing Principles and Practices (4), 3540 Business and Professional Presentations (4), 3898 Cooperative Education (1-4), 4183 Speech/Debate Workshop (1-3), 4201 Comparative Traditions of Rhetoric (4), 4210 Non-Western Rhetoric (4), 4230 Rhetoric of Social Movements (4), 4350 Advanced Public Speaking (4), 4411 Principles of Argumentation (4), 4460 American Public Address (4), 4500 Critical Discourse in Multicultural America (4), 4550 Communication Criticism (4), 4600 Modern Rhetorical Theory (4), 4610 The Rhetoric of Popular Culture (4), 4700 Topics in Speech Communication (4), 4810 Communication Theory (4), 4830 Intercultural Communication (4), 4840 Organizational Communication (4), 4842 Communication Training in Organization (4), 4850 Female/Male Communication (4), 4855 Family Communication (4), 4858 Intimate Communication (4), 4860 Ethnic Public Address (4), 4870 Methods of Research in Speech Communication (4), 4875 Senior Seminar (4), 4880 Communication and Conflict Resolution (4)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of at least 32 units in Speech Communication, of which at least 20 must be upper division, to be selected in consultation with a minor adviser. The following courses (20 units) are required for the Speech Communication Minor:

SPCH 1000 Principles of Speech Communication (4)
SPCH 1004 Interpersonal Communication (4)
SPCH 3411 Argumentation and Debate (4) or
SPCH 3510 Small Group Communication (4)
SPCH 4201 Comparative Traditions of Rhetoric (4)
SPCH 4830 Intercultural Communication (4)

SPEECH COMMUNICATION OPTION: LIBERAL STUDIES

Area I (4 units)

SPCH 1000 Principles of Speech Communication (4)

Area II.B (4 units)

SPCH 4830 Intercultural Communication (4)

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

SPCH 1004 Interpersonal Communication (4)

Performance Category -- Two of the following (8 units):

SPCH 3411 Argumentation and Debate (4)

SPCH/THEA 3485 Power and Use of the Human Voice (4)

SPCH 3510 Small Group Communication (4)

SPCH 3515 Persuasion (4)

SPCH 3530 Principles of Interviewing (4)

SPCH 4350 Advanced Public Speaking (4)

Theory Category -- Two of the following (8 units):

SPCH 4201 Comparative Traditions of Rhetoric (4)

SPCH 4600 Modern Rhetorical Theory (4)

SPCH 4810 Communication Theory (4)

Context Category -- One of the following (4 units):

SPCH 4411 Principles of Argumentation (4)

SPCH 4460 American Public Address (4)

SPCH 4550 Communication Criticism (4)

SPCH 4610 The Rhetoric of Popular Culture (4)

SPCH 4840 Organizational Communication (4)

SPCH 4850 Female/Male Communication (4)

SPCH 4858 Intimate Communication (4)

SPCH 4860 Ethnic Public Address (4)

SPCH 4855 Family Communication (4)

SPCH 4880 Communication and Conflict Resolution (4)

UNDERGRADUATE COURSES

1000 Principles of Speech Communication (4)[CAN SPCH 4]

Theory, practice, and evaluation of oral communication. Emphasis on ethical responsibility, careful selection and development of ideas, and logical organization of expository/argumentative/ persuasive discourse. (A)

1004 Interpersonal Communication (4)[CAN SPCH 4]

Study of principles of oral communication in different interpersonal contexts; dyads, interviews, and exercises in listening and speaking intended to develop competence in oral communication. (A)

2310 Oral Interpretation of Literature (4)

(See [THEA 2310](#) for course description.)

3333 Cultural Groups: Construction (4)

Interdisciplinary study of development and maintenance of cultural groups, the construction of traditions, socially shared meanings, and communicative practices. Emphasis on communication skills, language acquisition, analysis of messages, rhetorical construction and deconstruction of cultural consciousness. Team-taught

symposium and discussion.

3334 Cultural Groups: Conflict (4)

Interdisciplinary study of group conflict. Emphasis on group conflict structure and dynamics, contribution of group consciousness to inter-group conflict, rhetorical strategies that invite conflict. U.S. majority and minority group contestations used to analyze conflict. Team-taught symposium and discussion.

3335 Cultural Groups: Cooperation (4)

Interdisciplinary study of relationship between cultural ideologies, institutional structures, and cultural group conflict management. Management through negotiation is explored through an in-depth study of the cultural values and institutions of Mayan and Tlingit Indians. Team-taught symposium and discussion.

3411 Argumentation and Debate (4)

A course stressing those elements of logic and rhetoric making up responsible argumentative discourse. Practice in presentation and evaluation of argumentative speeches and forensic debates. Prerequisite: SPCH 1000, or consent of instructor. (F)

3485 The Power and Use of the Human Voice (4)

The acoustic features of the voice-resonance, pitch, rate, intensity, and articulation. Designed to improve the normal speaking voice through practice, and to understand the power of the voice in human communication.

3510 Small Group Communication (4)

Principles and methods of public and group discussion in problem solving and learning situations. Development of individual skills in discussion preparation, participation, and leadership through practical application. Small group dynamics. Prerequisite: SPCH 1000, or consent of instructor. (Y)

3520 Nonverbal Communication (4)

Correlation between verbal and nonverbal communication systems. Principles, theories, and effects of physical appearance, space, body posture, facial displays and paralanguage on the process of human communication. (Y)

3530 Interviewing Principles and Practices (4)

Combining communication theory and practice, students plan, manage, and interpret professional interviews. Students develop skills in conducting and evaluating interviews for employment, problem solving, and performance appraisal.

3540 Business and Professional Presentations (4)

Principles, techniques, and presentational skills associated with special occasions in organizations; speeches and reports, proposals, briefing. Special attention to audio-visual and other multimedia resources used in corporate education.

3555 Managing Meetings (4)

Management of formal business meetings for maximum efficiency in all varieties of democratic groups. Development of personal qualities of confidence and expertise to participate, function as a leader, or hold office in deliberative assemblies. Understanding the philosophical procedures underlying the discipline of parliamentary procedure.

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Speech Communication major; a maximum of 4 units will be accepted toward the Speech Communication minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

4183 Speech and Debate Activities Workshop (1-3)

An activity course for students participating in the co-curricular presentations of the department. Includes competition in debate and various speech events plus appearance before community groups. Admission by

consent of instructor. Field trips required. Six units maximum for speech communication credit. (F, W, Sp)

4201 Comparative Traditions of Rhetoric (4)

A study of Greek, Roman, and non-European traditions of rhetoric and oratory with an emphasis on theories of discourse, rhetorical practices, and the influence of particular cultures on rhetorical theory and practice.

4210 Non-Western Traditions of Rhetoric (4)

A multi-level comparative study of Eastern, Mideastern, and African rhetorical traditions. Emphasis on how each tradition constructs its own notions of self, community, power, truth, beauty and identity and how a different definition of rhetoric is implied in each construction.

4230 Rhetoric of Social Movements (4)

Communication strategies and constraints which face groups attempting to change or resist change in the norms and/or values of a representative democracy. Critique of rhetorical strategies of selected movements striving to achieve social change.

4350 Advanced Public Speaking (4)

Principles of public speaking and the development and presentation of talks designed to achieve specific purposes. May fulfill teaching credential speech communication requirement. Prerequisite: SPCH 1000, or consent of instructor. (Y)

4411 Principles of Argumentation (4)

The elements of argumentation emphasizing presumption and burden of proof; propositions; issues; reasoning and fallacies; models of argumentation; and criticism of argumentation from the courtroom, legislature, and other settings. (Y)

4460 American Public Address (4)

Analysis and evaluation of selected speeches by notable public figures in the United States. Focus on the rhetorical responses of women and men from diverse cultural backgrounds to various types of issues, audiences and occasions. May be repeated for credit with change in course content. (Y)

4500 Critical Discourse in Multicultural America (4)

Study of ancient and modern theories of rhetorical criticism. Extensive practice in applying principles of criticism to public communication in the diverse and multicultural American society. Emphasis on development of competence in analysis and refinement of judgment. (Y)

4550 Communication Criticism (4)

Study issues in the analysis and evaluation of messages to explain their influence on audiences. Frequent practice in applying critical approaches to a wide variety of messages, including speeches, essays, and conversation.

4600 Modern Rhetorical Theory (4)

An intensive study of leading theories from the eighteenth century to the present, seeking to discover their substance, their relationships to one another, and their usefulness. (Y)

4610 Rhetoric of Popular Culture (4)

Critical analysis of how popular culture (including clothing, sports events, television, rock concerts, ethnic festivals, advertisements, shopping malls, etc.) works rhetorically as messages and how it works discursively in our interactions with self and others. Students conduct field projects.

4700 Topics in Speech Communication (4)

Topics of special interest for intensive study in speech communication. May be repeated for credit with change in course content. (Y)

4810 Communication Theory (4)

An introduction of models of oral communication and persuasion, and an examination of studies of oral discourse which those models illustrate. (Y)

4830 Intercultural Communication (4)

Analysis and comparison of the perception and transmission of verbal and nonverbal messages in intercultural interactions within and among cultural and racial groups primarily of the United States. Cultural and social influences on the communication process and the communication of racism are emphasized. (Y)

4840 Organizational Communication (4)

Analysis and application of principles of human communication in the organizational setting. Study of communication structures, channels, climate, and relationships which influence the quality of verbal and nonverbal forms of interaction in the modern organization. (Y)

4842 Communication Training in Organizations (4)

Theory and practice of conducting communication seminars in organizations. Designing, developing, presenting, and assessing communication modules which focus on interpersonal, public, intercultural, and gender communication in varying organizational and business contexts.

4850 Female-Male Communication (4)

The communication styles of females and males in a variety of interpersonal and public settings. Emphasis on gender-related communication behavior as it influences effective personal and professional interaction.

4855 Family Communication (4)

Analysis of family communication with attention on how communication patterns learned in diverse family structures (sexual orientation, cultural, and class variations) influence our sense of self and provide models for intimate relationship; the variety of ways families communicate; development of analytical skills to improve communication competence in family interactions.

4858 Intimate Communication (4)

The influence of culture, gender, and sexual orientation on the community of intimacy in romantic, friendship, and family relationships.

4860 Ethnic Public Address (4)

The rhetorical principles and public address of ethnic speakers in the United States, including Native American, Asian American, Latino, and African American rhetoric.

4870 Methods of Research in Speech Communication (4)

An introduction to an application of theories and methods of conducting both quantitative and qualitative research in speech communication. Issues of basic research design and data analysis are explored and applied to specific research topics. (Y)

4875 Senior Seminar (4)

Students share knowledge gained from their studies. They develop and present learning portfolios to demonstrate intellectual and skill-based competencies.

4880 Conflict Communication (4)

Patterns and negotiation styles of expressed disagreements between individuals and/or groups. Culture, gender and relational influence on attitudes and the expression of conflict significantly infused throughout. Focus on informal and formal methods of negotiation in personal, organizational, or public settings. Repeatable once with consent of instructor.

4900 Independent Study (1-4)

** May require prerequisites not included in the option.

Online University Catalog
California State University - Hayward
Last Update: 11/18/96

Speech Pathology and Audiology [SPPA]

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SPEECH PATHOLOGY AND AUDIOLOGY

Department of Communicative Sciences and Disorders
School of Arts, Letters, and Social Sciences
Office: Music and Business Bldg. 1099
Phone: (510) 885-3233

Professors:

Rhoda L. Agin, Norma S. Rees, William S. Rosenthal, Robert A. Veder (Chair)

Associate Professor:

Jan A. Avent

Lecturers:

Sumner Blanchard, Harold Clumeck, Barbara Rockman, Shelley Simrin

Adjunct Faculty:

Bonnie Cabasino, Susan Cariage, Susan Carlson, Mary Jude Doerpinghaus, Gerry Garber, Paula Jenkins, Wendy Mello, Janice Otto, Lynn Roberts, Patti Solomon-Rice

PROGRAM DESCRIPTION

Speech-language Pathology and Audiology are the professions which help adults and children overcome disabilities of speech, language, and/or hearing. These professions can satisfy a wide variety of career interests, including working in an allied medical profession, public service, government, education and private industry. Through research, these professions also contribute to our knowledge about human communication.

Many students select this degree program for professional training in Speech-language Pathology and Audiology, others select this major because it seeks to develop student patterns of clear and logical thinking, planning, decision making and writing. Drawing from such academic disciplines as biology, psychology, sociology, linguistics, medicine, and the physical sciences, the program offers an interdisciplinary character that encourages and fosters an emphasis on acquiring the broad knowledge of a liberal arts general education, as well as developing expertise in a single discipline. Many of our undergraduate majors have used these attributes to successfully pursue careers other than Speech-language Pathology and Audiology, and have gone on to fields of education, finance, business, and government services.

CAREER OPPORTUNITIES

Audiologist ■ Communications Specialist ■ Consultant ■ Professor/Teacher ■ Research Assistant ■ Speech-language Pathologist ■ Clinical Supervisor

FEATURES

The Speech Pathology and Audiology program operates the Center for Communicative Disorders, an on-campus facility which provides clinical services to speech, language, and hearing impaired individuals from Bay Area Communities. Students who are enrolled in the program do much of their initial observations and clinical training in this facility. The program also maintains a fully equipped speech and hearing sciences laboratory for students who wish to pursue research interests.

The Department of Communicative Sciences and Disorders offers the coursework required to qualify as a registered audiometrist in the public schools of the State of California.

The Bachelor of Science degree major in Speech Pathology and Audiology provides students with a background in theoretical and clinical areas fundamental to the understanding and management of communicative disorders and serves as the pre-professional training necessary for admission to graduate studies.

Students enrolled in this program are required to see their advisor each quarter prior to registration.

MAJOR REQUIREMENTS - B.S.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 89 units; the B.S. degree requires a total of 186 units.

I. Lower Division (20 units)

- BIOL 1001-2 Introduction to Biology and Lab (5)
- BIOL 2010 Human Physiology and Anatomy I (5)
- PSYC 1000 General Psychology (5)
- STAT 1000 Elements of Probability and Statistics (5)

II. Upper Division (53 units)

- SPPA 3852 Survey of Speech and Language Disorders -- Part I (4)
- SPPA 3853 Survey of Speech and Language Disorders -- Part II (4)
- SPPA 3854 Anatomy and Physiology of Speech (4)
- SPPA 3855 Introduction to Phonetics (4)
- SPPA 3856 Observation of Clinical Procedures in Communicative Disorders (1, 1)
- SPPA 3859 Introduction to Audiology (4)
- SPPA 4852 Clinical Methods and Procedures in Communicative Disorders (2)
- SPPA 4854 Diagnosis of Speech & Lang. Disorders (4)
- SPPA 4855 Aural Rehabilitation (4)
- SPPA 4856 Clinical Practicum in Speech Pathology and Audiology (1)
- SPPA 4859 Seminar in Speech Pathology & Audiology(4)
- SPPA 4861 Introduction to Audiometry (4)
- SPPA 4863 Phonological Disorders in Children (4)

SPPA 4865 Language Disorders in Children (4)
SPPA 4867 Introduction to Speech Science (4)

III. Elective Courses (16 units)

Each student enrolled in this major must complete 16 units of upper division courses in related disciplines; these courses are subject to adviser approval. Courses may be chosen from areas such as psychology, human development, linguistics and sign language. Students are responsible for any required prerequisites for elective courses.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 32 units.

SPCH 1004 Interpersonal Communication (4)
SPCH 4810 Communication Theory (4)
SPPA 3852 Survey of Speech and Language Disorders-Part I (4)
SPPA 3854 Anatomy and Physiology of Speech (4)
SPPA 3855 Introduction to Phonetics (4)
SPPA 3859 Introduction to Audiology (4)
SPPA 4854 Diagnosis of Speech & Language Disorders(4)
SPPA 4855 Aural Rehabilitation (4)

SPEECH PATH/AUDIOLOGY OPTION: LIBERAL STUDIES

Area II.B (5 units)

SPPA 3852 Survey of Speech and Language Disorders -- Part 1 (4)
SPPA 3856* Observation of Clinical Procedures in Communicative Disorders (1)

Area VII, Credential Track, or Area VI, Liberal Arts Track (25 units)

SPPA 3853 Survey of Speech and Language Disorders -- Part II (4)
SPPA 3855 Introduction to Phonetics (4)
SPPA 3856* Observations of Clinical Procedures in Communicative Disorders (1)
SPPA 3859 Introduction to Audiology (4)

Three courses selected from the following (12 units):

SPPA 3854 Anatomy and Physiology of Speech (4)
SPPA 4854 Diagnosis of Speech and Language Disorders (4)
SPPA 4855 Aural Rehabilitation (4)
SPPA 4861 Introduction to Audiometry (4)
SPPA 4863 Phonological Disorders in Children (4)

BASIC SKILLS COURSES

0980 Speech Laboratory for Non-Native Speakers of English (1)

Discussion/laboratory course on oral competency for non-native speakers of English. Focus on articulation of speech sounds, stress, intonation, and vocal dynamics of American English. A/B/C/NC grading only.

UNDERGRADUATE COURSES

3005 Verbal American English Skills (4)

Introduces non-native speakers of English to pronunciation, rate, pausing, rhythm, and vocal variability for individual and group interactions. Prerequisite: satisfactory completion of SPPA 0980 or permission of instructor.

3852 Survey of Speech and Language Disorders--Part I (4)

The nature of speech and language pathology. Acquisition of speech and language by children and deviations from normal speech and language patterns, e.g., disorders of language, articulation, voice, language difference in a multicultural society, and stuttering. To be taken concurrently with SPPA 3856. (F)

3853 Survey of Speech and Language Disorders--Part II (4)

Continuation of SPPA 3852. Topics include cerebral palsy, cleft palate, language learning disabilities, aphasia, and professional ethics. Prerequisite: SPPA 3852 or consent of instructor. To be taken concurrently with SPPA 3856. (W)

3854 Anatomy and Physiology of Speech (4)

Study of the anatomy, physiology, and neurology of the speech mechanism; respiration, phonation, articulation, and resonance with emphasis on normal processes. (Sp)

3855 Introduction to Phonetics (4)

Study of physiologic foundations of vowels, consonants, diphthongs in American English. Development of ability to transcribe phonetically speech dialects and various articulatory patterns. Three hours of auditory training in the Language Laboratory required weekly. (F)

3856 Observation of Clinical Procedures in Communicative Disorders (1)

Supervised observations, discussions, and written critiques of speech, hearing and language diagnosis and therapy. To be taken concurrently with SPPA 3852 and SPPA 3853. CR/NC grading only. Must be taken twice. May be repeated for credit with a limit of four total units, only two of which may be applied to the major. (A)

3859 Introduction to Audiology (4)

An overview of the profession of audiology. The anatomy and physiology of the auditory system, theories of hearing, auditory disorders, and the nature of sound. (F, W)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. Not applicable to the Speech Pathology major; a maximum of 2 units will be accepted toward the Speech Pathology minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

4852 Clinical Methods and Procedures in Communicative Disorders (2)

Basic principles of client treatment and management, including structuring the therapy session, designing therapy hierarchies, data collection, working with families, reinforcement and documentation. CR/NC grading only. Prerequisite: Prior or concurrent enrollment in SPPA 4856. (Y)

4853 Vocal Pathology and Rehabilitation (4)

Study of various functional and organic disorders, e.g., vocal nodules, spastic dysphonia, laryngeal cancer and contact ulcers. Principles and methods of intervention for vocal disorders found in adults and children. Prerequisites: SPPA. 3853, 3854, or consent of instructor. (F)

4854 Diagnosis of Speech and Language Disorders (4)

Theory and practice in the assessment of various pathologies of speech and language. Prerequisites: SPPA 3852, 3853, 3855, or consent of instructor. Two hrs. lect., 6 hrs. lab. (F, W)

4855 Aural Rehabilitation (4)

The study, analysis and application of various processes for developing and improving communication skills in hearing impaired children and adults. Current basic procedures in hearing aid evaluations. Prerequisite: SPPA 3859 and 4861, or consent of instructor. (F)

4856 Clinical Practicum in Speech Pathology and Audiology (1-5)

Development, implementation and evaluation of individualized therapy programs for clients in the Speech, Hearing and Language Clinic. Practice in report writing and oral case presentations. Prerequisite: SPPA 3852, 3853, 3855, and 4854 or consent of instructor. Each unit of clinic requires a minimum of 30 hours of client contact per quarter. (A)

4859 Seminar in Speech Pathology and Audiology (4)

Investigation of individual research projects in speech pathology and audiology. Reports to seminar of those investigations. Prerequisite: senior standing in Speech Pathology and Audiology, or consent of instructor. (Sp)

4861 Introduction to Audiometry (4)

Theory and application of the fundamentals of pure tone and speech audiometric procedures basic to identification audiometry and differential diagnosis of peripheral auditory disorders. Prerequisite: SPPA 3859. (Sp)

4862 Orofacial Anomalies (4)

Anatomy, physiology, diagnosis, and management of anomalous palatal conditions. Special consideration of speech therapy methods in cases of cleft palate and congenital palatopharyngeal incompetence. Case application of these procedures and appropriate counseling methods. Prerequisite: SPPA 3853. (Y)

4863 Phonological Disorders in Children (4)

Systematic study of articulatory disorders resulting from deviant phonological rule systems; critical review of traditional tests with emphasis on innovative evaluation and treatment procedures including distinctive feature theory. Prerequisite: consent of instructor. (Y)

4864 Fluency Dysfunctions (4)

Theories of etiology and therapeutic approaches to stuttering and cluttering disorders in adults and children. (Y)

4865 Language Disorders in Children (4)

Causes and treatment of language disorders in children. Students observe treatment; learn to collect and analyze language samples, and to write training programs. Prerequisite: consent of instructor. (W)

4866 Aphasia in Adults (4)

Analysis of historical and current information relating brain dysfunction and language disorders. Student observations; practice in administration, scoring, and interpretation of aphasia tests. Prerequisite: consent of instructor. (Y)

4867 Introduction to Speech Science (4)

Fundamentals of sound production and transmission as related to speech. Theory of speech production, perception, acoustic and physiologic phonetics, and analysis of the acoustic properties of speech. Prerequisite: SPPA 3854, 3855, or consent of instructor. (Sp)

4900 Independent Study (1-4)

* Enrollment in SPPA 3852 and 3853 requires concurrent enrollment in SPPA 3856.

Online University Catalog
California State University - Hayward
Last Update: 04/15/96

Statistics [STAT]

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- [CAREER OPPORTUNITIES](#)
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- [MAJOR REQUIREMENTS ■ B.S.](#)
- [MINOR REQUIREMENTS](#)
- [STATISTICS OPTION: LIBERAL STUDIES](#)
- [UNDERGRADUATE COURSES](#)

STATISTICS

Department of Statistics
School of Science
Office: North Science 229
Phone: (510) 885-3435

Professors:

Richard Drogin, Dean H. Fearn, Richard Y. Kakigi, Elliott Nebenzahl, Julia A. Norton, Michael L. Orkin, Heebok Park, Bruce E. Trumbo

PROGRAM DESCRIPTION

Statistics is the study of designing experiments and evaluating the data obtained from experiments in a mathematical way. This young and rapidly growing science is widely used to make predictions about future events based on patterns observed in the past and to draw accurate inferences about large groups on the basis of a representative sample from the group. Economic forecasts and public opinion polls are examples of these kinds of statistical methods.

The methodology of statistics can be adapted to a wide spectrum of problems. Due to the extensive development of computers and the collection of large data banks, the need for statistical techniques has mushroomed in the past few decades. A society like ours, which has become increasingly dependent on its data, has a growing need for statisticians.

CAREER OPPORTUNITIES

Actuary ■ Biostatistician ■ Business Executive ■ Census Analyst ■ Credit Analyst ■ Data Analyst ■ Economist ■ Financial Modeling Specialist ■ Forms Analyst ■ Insurance Agent ■ Market Researcher ■ Oddsmaker ■ Quality Control Specialist ■ Research Statistician ■ Sales Analyst ■ Statistician ■ Survey Designer ■ Systems Analyst ■ Teacher

PREPARATION

The theory of statistics rests on a mathematical foundation. Even for statisticians whose primary interest is in applications, challenging mathematical problems arise continually. Calculus and computer programming are required for the major.

Courses in areas to which statistics is applied will also be helpful. Examples are business, biology, chemistry, social sciences, psychology, and physics.

Community college students are advised to complete the sequence of elementary calculus and analytic geometry courses available before transferring to Cal State Hayward.

MAJOR REQUIREMENTS - B.S.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 72-78 units; the B.S. degree requires a total of 186 units.

I. Basic Requirements (20-26 units)

MATH 1300 Trigonometry and Analytic Geometry (4)

MATH 1304, 1305 Calculus I, II (4, 4)

One of the following (4 units):

CS 1020 Introduction to Computers (4) or CS 1160 Introduction to Computer Science and Programming Methods (4)

One of the following (4-10 units including prerequisite course):

STAT 3010 Statistical Methods in the Social Sciences (4) [prerequisite, STAT 1000 (5)] or STAT 3031 Statistical Methods in Biology (4) or MGMT 3100 Quantitative Methods in Business (5) [prerequisite, STAT 2010 (5)] or MATH 2101 Elements of Linear Algebra (4) or MATH 2304 Calculus III (4)

II. Mathematical Statistics and Probability (32 units)

STAT/MATH 3401 Introduction to Probability Theory I (4)

STAT/MATH 3502, 3503 Stat. Inference I, II(4,4)

STAT 3900 Statistical Packages for Data Analysis (4)

One of the following (4 units):

STAT 3402 Introduction to Probability Theory II (4) or STAT 4601 Regression and Experimental Design (4)

Any 3 of the following courses not used above (12 units):

STAT 3402* Introduction to Probability Theory II (4), 3510 Sampling Procedures for Surveys (4), 3910 Statistical Software Design for Microcomputers (4), 4910 Statistical Programming (4); STAT/MATH 4401* Introduction to Stochastic Processes(4); STAT 4515 Multivariate Analysis (4), 4601* Regression and Experimental Design(4), 4610 Nonparametric Stat. Methods for the Social Sciences (4)

III. Area of Emphasis (20 units)

Complete one of the following:

1. Twenty units of approved mathematics or statistics courses in addition to those used for the requirements in Sections I and II above. MATH 3300, Intermediate Analysis, should normally be included in these 20 units. These courses are especially recommended for students taking the mathematical statistics pattern.
2. Twenty units of approved courses in an approved area. Areas currently approved include the following: Biological Science, Business/Economics, Chemistry, Computer Science, Geological Sciences, Physics, Political Science, Psychology, Sociology. For a complete list of currently approved areas, contact the Department of Statistics.

To gain departmental approval, these courses must include at least one upper division course and be judged to constitute a coherent program of study. (With the approval of the department, upper division Statistics courses, except STAT 3010 and STAT 3031, may be applied toward these twenty units.)

Credit/No Credit Courses

It is the policy of the department that no course taken on a "CR/NC" basis may be applied toward any of the requirements of Section II above. Individual petitions for waiver of this policy will be treated according to the same procedures as petitions to waive other degree requirements.

Double Major

A knowledge of statistical methods is of increasing importance to students in many areas, especially the physical, biological, and social sciences and administrative studies. A second major in statistics along with a major in one of these areas may result in better preparation for employment or for graduate study. The following three factors combine to make such a double major feasible in many cases:

1. The Statistics major allows for a relatively large number of completely unrestricted elective units. The student may elect courses required for the other major among these.
2. Up to twenty units in certain areas outside of Statistics may be applied toward the Statistics degree. (See Area of Emphasis requirement, III.2.)
3. Some other majors require Statistics courses that also count towards the Statistics major (e.g., STAT 2010, 3010, etc.).

To obtain an illustrative program contact the Statistics Department.

Note: If a student simultaneously completes requirements for two majors leading toward different degrees (e.g., B.S. major in Statistics and B.A. major in Sociology), only one degree (student's choice) is awarded. However, in all cases, the student's transcript carries a notation that both sets of major requirements have been met.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

The minor consists of 24-25 units; six courses not involving calculus prerequisites approved for all students in the minor are as follows:

One of the following courses:

STAT 1000 Elements of Probability and Statistics (5), 2010 Elements of Statistics for Business and Economics (5), 3031 Statistical Methods in Biology (4)

Five of the following:

STAT 2088 Games of Chance, Gambling and Probability (4), 3010 Statistical Methods in the Social Sciences (4), 3415 Introduction to Decision Theory (4), 3510 Sampling Procedures for Surveys (4), 3900 Statistical Packages for Data Analysis (4), 3910 Statistical Software Design for Microcomputers(4), 4000 Statistical Analysis in the Behavioral Sciences (4), 4610 Nonparametric Statistical Methods for the Social Sciences (4)

With the consent of a Statistics Department adviser, any upper division Statistics course with a calculus prerequisite may be substituted for any of the above courses.

STATISTICS OPTION: LIBERAL STUDIES

Area I (5 units)

Either STAT 1000 Elements of Probability and Statistics (5) or
STAT 2010 Elements of Statistics for Business and Economics (5)

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

Complete (1) or (2)

1. MATH 1110 The Nature of Mathematics (4) or MATH 1130 College Algebra (4) or MATH 1300 Trigonometry and Analytic Geometry (4)

Five upper division Statistics courses (20 units) selected from:

STAT 3010 Statistical Methods in the Social Sciences (4)

STAT 3415 Introduction to Decision Theory (4)

STAT 3510 Sampling Procedures for Surveys (4)

STAT 3900 Statistical Packages for Data Analysis (4)

STAT 4000 Statistical Analysis in the Behavioral Sciences (4)

STAT 4610 Nonparametric Statistical Methods for the Social Sciences (4)

2. MATH 1810 Mathematics for Business and Social Sciences I (4), and MATH 1820 Mathematics for Business and Social Sciences II (4)

Four upper division Statistics courses (16 units) chosen from the list above.

Students with calculus may substitute any upper division Statistics course for any course above.

Students interested in elementary school teaching should pursue the Liberal Studies Major and credential track (see the [Liberal Studies chapter](#) in the undergraduate section of this catalog). Those interested in secondary school teaching should complete the Single Subject Matter Preparation Program in [Mathematics](#) (see undergraduate chapter).

UNDERGRADUATE COURSES

Information about Elementary Statistics Courses

Prerequisite: All introductory statistics courses require as a prerequisite completion of the Entry Level Math or ELM requirement.

First Statistics Course: The courses STAT 1000/3010 form a sequence and so STAT 1000 is the appropriate first course in many--but by no means all--cases. Biology majors should take STAT 3031 as their first Statistics course. Business and Economics majors should take STAT 2010. Sociology majors who elect to take only one Statistics course should take STAT 1000. STAT 1100 has a less stringent prerequisite than STAT 1000 and may be appropriate for students who are sure they will take only one Statistics course (e.g., certain majors in Liberal Studies, Nursing, Kinesiology, etc., as well as some students using a Statistics course to satisfy General Education requirements). STAT 3401 and STAT 3502 may be taken with no previous background in Statistics and are open to students with the appropriate Mathematics prerequisites.

Prohibitions: Students will NOT receive credit toward graduation for more than one of STAT 1000, 1100, 2010. STAT 1000 and 1100 may not follow any upper division Statistics course. Business and Economics majors require STAT 2010 or STAT 3502 and so must not take STAT 1000 (unless substitution of 1000/3010 for 2010 or 3502 has been approved by the major department).

Substitutions: Some departments permit students with appropriate background or interests to substitute a more advanced course or pair of courses for a course(s) specified as required in the Catalog. Get advance written permission from your department before making any of the following substitutions: 1000 for 1100; 2010 for 1000; 1000/3010 for 2010; 3502 for 3031; 3502 (plus 5 elective units) for 1000/3010; 3503 for 4000.

1000 Elements of Probability and Statistics (5)**

[CAN STAT 2]

Descriptive statistics (measures of central tendency, dispersion, correlation), elementary discrete probability distributions. Introduction to tests of statistical hypotheses. Prerequisite: Completion of ELM requirement. (A)

1100 Elements of Descriptive and Inferential Statistics (4)**

An introduction to descriptive statistics and basic ideas of inferential statistics. Uses and misuses of statistics. Not an acceptable prerequisite for other statistics courses. Prerequisite: completion of ELM requirement. (Y)

2010 Elements of Statistics for Business and Economics (5)**

Introduction to modern probability, descriptive statistics, estimation, hypothesis testing, and linear regression. Applications to business and economics. Prerequisite: MATH 1304 or MATH 1810 (either may be taken concurrently) or consent of instructor. (A)

2088 Games of Chance, Gambling and Probability (4)

A survey of popular gambling games, including dice games, card games, and horse racing, as an introduction to probability theory. Discussion of odds and gambling strategies. Not for Statistics major credit. Prerequisite: completion of ELM requirement. (Y)

3010 Statistical Methods in the Social Sciences (4)**

Standard scores, t scores, ranked data, linear regression, correlation, measures of association, the normal distribution and its uses, paired comparisons, the uses of chi-square, and introduction to design of experiments. Prerequisite: STAT 1000 or equivalent. (A)

3031 Statistical Methods in Biology (4)**

Basic probability and statistical concepts. Introduction to the analysis of variance, correlation and simple linear regression. Nonparametric techniques with application to biology. Prerequisite: MATH 1130 or consent of instructor. (F, W, Sp)

3401 Introduction to Probability Theory I (4)

The theory of probability with applications to various sciences. Topics include sample spaces, random variables, conditional probability, expectation, combinatorics, important distributions (binomial, Poisson, normal, etc.). Prerequisite: MATH 1305 (may be taken concurrently) or consent of instructor. Cross-listed with [MATH 3401](#).

(F, W, S)

3402 Introduction to Probability Theory II (4)

Joint and marginal distributions, transformations of random variables, uses of probability theory in mathematical statistics, generating functions, and elementary limit theorems. Prerequisite: STAT 3401, MATH 2304 (may be taken concurrently). Cross-listed with [MATH 3402](#). (Y)

3415 Introduction to Decision Theory (4)

Probability and conditional probability. Expectation and its application to decision making. Decision trees. Bayesian models and methods, comparison with classical methods, game theory. Prerequisite: STAT 1000 or STAT 2010. (Y)

3502 Statistical Inference I (4)

Random variables and their distributions, estimation, expectation and hypothesis testing with special emphasis on treatment of actual data and adherence to model assumptions. Computer-aided computations. Cross-listed with [MATH 3502](#). Prerequisite: MATH 1305 or MATH 1820 or consent of instructor. (F,W)

3503 Statistical Inference II (4)

Introduction of the general linear hypothesis with emphasis on applications to the design and analysis of experiments. Actual data from experiments including factorials, a priori comparisons, randomly chosen treatments, and nested treatments. Appropriate analysis of designs using computer aided computations. Cross-listed with [MATH 3503](#). Prerequisite: STAT 3502. (W)

3510 Sampling Procedures for Surveys (4)

Detailed investigation of sampling methods. Design and comparisons of stratified, systematic, and cluster sampling procedures. Techniques of multistage and multiphase sampling. Prerequisite: STAT 1000 or equivalent. (Y)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the Statistics major. Prerequisites: at least 2.0 GPA; departmental approval of activity.

3900 Statistical Packages for Data Analysis (4)

Interpreting and utilizing computer packages (e.g., SPSS, SAS, BMDP). Includes data preparation, descriptive statistics, t-tests, F-tests, ANOVA, cross tabulations, chi-square tests, correlation analysis, regression and report preparation from computer output. Prerequisites: a previous course in statistics or instructor's consent. (Y)

3910 Statistical Software Design for Microcomputers (4)

Writing microcomputer software useful for elementary statistical analysis and probability computations. Topics include: statistical graphics, user-friendly design, data files, simulations, pseudorandom numbers, approximation algorithms, microcomputer strengths and weaknesses. Prerequisites: a previous Statistics course (e.g., 1000, 3401, 3502) and familiarity with a programming language (e.g., CS 1020, 1021, 1160, 1161). (Y)

4000 Statistical Analysis in the Behavioral Sciences (4)

Introduction to analysis of variance. Prerequisite: STAT 3010 or equivalent. (Y)

4401 Introduction to Stochastic Processes (4)

The theory and applications of stochastic models. Limit theorems. Emphasis on Markov, Poisson, branching, and/or Gaussian processes. (Cross-listed with [MATH 4401](#).) Prerequisite: STAT 3401. (Y)

4515 Multivariate Analysis (4)

Multiple regression, Bayes regression and discriminant functions. Factor analysis and cluster analysis with special emphasis on treatment of actual data. Prerequisite: STAT 3503 or consent of instructor. (Y)

4601 Regression and Experimental Design (4)

Computational methods in regression and analysis of variance. Methodology of design and analysis of experiments in physical, biological and social sciences. Prerequisite: STAT 3503 (may be taken concurrently). (Y)

4610 Nonparametric Statistical Methods for the Social Sciences (4)

Nonparametric methods appropriate to data found in social science research; e.g., sign test, Wilcoxon test, rank correlation test, tests for independence and randomness; approximate distributions under the null hypothesis; treatment of ties; some estimation procedures. Prerequisite: Stat. 3010 or equivalent. (F)

4860-99 Undergraduate Seminar (2-4 each)

Seminar in probability and/or statistics on topics extending beyond regular courses. Variable content, units, and prerequisites, specified below or at the time of offering. A total of up to 12 units of different topics may be taken for credit.

4900 Independent Study (1-4)**4910 Statistical Programming (4)**

Computational algorithms for statistical methods. Topics include: computation of commonly used continuous and discrete distributions, fitting the general linear model, and computations involved in analysis of variance. Writing programs which are useable by people other than the programmer. Prerequisite: knowledge of an elementary programming language (e.g., BASIC, FORTRAN, PASCAL, C) and a course in Statistics (e.g., 3401, 3502). (Y)

* These courses are especially recommended for students taking the mathematical statistics pattern.

** Refer to "Information about Elementary Statistics Courses" above.

Teacher Education [TED]

- [PROGRAM DESCRIPTION](#)
- [REMEDIAL COURSE](#)
- [UNDERGRADUATE COURSES](#)

TEACHER EDUCATION

Department of Teacher Education
School of Education and Allied Studies
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Professor Emerita:

Esther Railton-Rice

Professors:

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Associate Professors:

Joan D. Davenport, JoAnn Aiello Hatchman, Valerie Helgren-Lempesis, Alvin E. Howe, Dana Martin-Newman

Assistant Professors:

Leticia Ramirez-Lopez

Lecturer:

Dien Thi To

PROGRAM DESCRIPTION

The Department of Teacher Education offers primarily post-baccalaureate and graduate courses. See [Teacher Education](#) in the Post-baccalaureate and Graduate section of this catalog.

REMEDIAL COURSE

0910 Developing Reading Skills for University Students (4)

Development and improvement of reading skills. Emphasis on word analysis, vocabulary, comprehension and study skills. Units applicable to student's load, but not to baccalaureate degree. (Y)

UNDERGRADUATE COURSES

The following undergraduate courses may be taken to enhance teaching skills and give potential master's degree or teaching credential candidates additional experience working with children and young adults.

1000 Teachers for Tomorrow, Phase I (3)

Introduction to, and counseling for, the field of teaching. Directed observations, assistant teaching, lectures, discussions, and reporting related to pre-school, elementary, secondary and non-school educational settings. For juniors and seniors in high school who are recommended by their teachers.

1010 Teachers for Tomorrow, Phase II

Introduction to theories of education and child development with a special focus on curriculum development. Students prepare and teach lessons for elementary school children. Designed for high school students involved in the Urban Teacher Academy and Step to College programs.

3001 Exploring Education (3)

Introduction to the field of teaching. Reports and discussions related to directed observations of preschool, elementary and secondary classrooms, and non-school educational settings. Examination of changing issues in education and their implications for future teaching practices and theories. Two hrs. lect., 2 hrs. act. (A)

3500 Introduction to Early Childhood Studies (4)

A survey of the methods and programs used to study and/or influence the development of young children. (Y)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with offcampus paid or volunteer activities. May be repeated for up to 4 units. No units may be counted toward credential programs. CR/NC grading only. Prerequisites: at least 2.75 GPA; departmental approval of activity.

4040 Methods for Tutoring College Students (4)

An introduction to the theories and methods of tutoring at the college level. Application of psychological and educational learning principles to the tutoring process. Development of tutor communication skills and diagnostic/prescriptive tutoring methods. Two hrs. lect., 4 hrs. tutoring. (Y)

4041 Advanced Tutoring Methods in Reading, Writing and Learning Skills (4)

An introduction to the theories and methods of tutoring reading, writing, and learning skills at the college level. Analysis of receptive and expressive language and learning skills and their application to the content areas. Development of tutor communication skills and diagnostic/prescriptive tutoring methods. Prerequisite: T ED 4040. Two hrs. lect., 4 hrs. tutoring. (Y)

4042 Advanced Tutoring Methods in Mathematics and Science (4)

An introduction to the theories and methods of tutoring mathematics and science at the college level. Analysis of the critical thinking, learning skills, and problem solving strategies required in math and science. Development of tutor communication skills and diagnostic/prescriptive tutoring methods. Prerequisite: T ED 4040. Two hrs. lect., 4 hrs. tutoring. (Y)

4320 Art Skills for Teachers (4)

Designed specifically for teachers with little or no art experience. Work in drawing, printmaking, weaving, papier mache, puppets, masks, batik, tie dyeing, lettering. Suggestions for translating teacher skills into activities for children. May be taken twice for credit. Please consult the quarterly *Class Schedule* for the current fee. (F, W, Sp)

4600 Seminar in Early Childhood Studies (3)

Integrative study of influences on children and their development. Discussion of research methods and findings. Not open to students who have received credit for HDEV 4600. Prerequisites: T ED 3500, HDEV 4520. (Y)

4900 Independent Study (1-4)

Theatre and Dance [THEA, DANC]

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- [SUBJECT AREA COURSE LISTS](#)
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- [THEATRE OPTION: LIBERAL STUDIES](#)
- [DANCE OPTION: LIBERAL STUDIES](#)
- [COURSES](#)

THEATRE AND DANCE

Department of Theatre and Dance
School of Arts, Letters, and Social Sciences
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Phone: (510) 885-3118

Professors:

Cynthia Berrol, Regina Cate, Edgardo de la Cruz, Thomas C. Hird (Chair), Roderic M. Prindle

Associate Professor:

Rhoda Helfman Kaufman

Lecturer:

Laura Renaud-Wilson

PROGRAM DESCRIPTION

The Department of Theatre and Dance provides comprehensive pre-professional training in the areas of acting, directing, dance, design, and theatre technology. The primary goal of the program is to develop artists whose performance skills and creativity are supported by a sound background in history, literature, and aesthetics. In an environment designed to encourage creativity and self expression, each student has opportunities to participate in various specializations within the major - acting, costuming, dance, directing, scenery, lighting design, or management. Students perform regularly in a variety of theatre and dance productions in the university's two performance facilities.

Theatre Arts graduates acquire a range of skills. This enables them to pursue different professional options. Many have entered advanced studies in nationally recognized universities and conservatories. Some have opted for careers in teaching, while others have gone directly into theatre or dance performance. Employers in other professions desire Theatre Arts graduates for their team skills, their imaginative approach to problems, and their ability to communicate creatively.

CAREER OPPORTUNITIES

Actor/Actress ■ Broadcast Technician ■ Business Agent ■ Choreographer ■ College Student Services ■ Comedian ■ Corporate Officer ■ Costume Designer ■ Dancer ■ Director ■ Drama or Dance Teacher/Professor ■ Light Technician ■ Make-Up Artist/Specialist ■ Non-profit Manager ■ Performing Arts Fundraiser ■ Playwright ■ Producer ■ Sales Manager ■ Set Decorator ■ Set Designer ■ Sound Technician ■ Stage Manager ■ Theatre Critic ■ Theatre Technician ■ Theatre Manager

FEATURES

The Department of Theatre and Dance produces approximately 12 plays and dance concerts during the year (including summer). The selection of plays exposes students in design, acting, directing, stage management, and technical theatre to a wide variety of styles, periods, and genres from Shakespeare to Sam Shepard and from Greek Tragedy to Modern Drama.

The department has several performance groups. Musical Theatre, Readers Theatre, Children's Theatre, and Improvisation add to a varied and challenging performance schedule. An unusual feature of the Children's Theatre production each year is the opportunity for students to perform and serve as technical crew for over 30 performances on campus and on tour. This gives the student the experience of a "long run" show.

The Highlands Summer Theatre program is designed to give students a chance to test themselves and their art. The fully functioning theatre environment becomes a career choice experiment for the beginning artist, a proving ground for artist-in-training, and a place for both to develop and refine skills. All company members register for the 8 unit Summer Theatre course.

The Theatre and Dance Department is fortunate to have excellent facilities including the 480 seat University Theatre, the flexible Studio Theatre, scene shop, costume shop, twelve-station drafting room, acting studio, green room, make-up room, dressing rooms with lockers and showers, and a spacious Dance Studio.

MAJOR REQUIREMENTS - B.A.

The Theatre Arts major consists of 73-93 units, depending on the students' choice of a career option and their record of participation in performances; the BA degree requires a total of 186 units. The number of lower division units in the major is limited and indicated in each category below.

I. Core and Performance Competency Requirements (16-27 units)

All majors must complete the following requirements:

THEA 1012 Exploring Creativity -- Theatre and Dance (3)

THEA 4445 Theatre Arts Management (4)

Workshop courses (7-16)

Seven to eight workshops in the performance series (THEA 3180, 3181, 3182, etc.) during final six to eight quarters, by written agreement with chair

Department Culminating Project (approved by chair) (2-4)

■ Allowable lower division units: 6

II. Option Requirements (57-66 units)

Students must select one of the following career options. Each option refers to Subject Area Course Lists (SACL). A SACL lists courses which may be applied in one of the specific categories of the discipline. This

arrangement allows students, along with their advisors, considerable freedom in selecting courses meaningful to their specific career goals. Please refer to the "Subject Area Course Lists" at the end of this section. Updated lists are also posted outside the department office and in the theatre.

A. Creative Arts Option (57 units)

This option meets the needs of those majors with career goals in education, children's theatre, and in non-performance fields like management. Many Theatre Arts graduates are working in every facet of the business world and others have been accepted into a variety of graduate school programs. Due to experience and training received in teamwork, imaginative problem solving, and creative communication, Theatre Arts serves as an excellent foundation for management, social service, and other people-oriented careers.

Students, with the agreement of an advisor, complete specific courses and required units selected from courses on the Subject Area Course Lists as follows:

- Theatre History and Literature List (12)
- Acting List (8)
- Directing List (4)
- Technical/Design List (16)
- Dance courses (any Dance List) (5)
- Elective courses (by agreement with advisor) (12)

■ Allowable lower division units: 12

B. Acting Option (63-65 units)

This option is designed to prepare students to move directly into an acting career or for entrance into a graduate MFA program. New students must take THEA 3010 at their first opportunity in order to qualify for this option.

Students, with agreement of an advisor, complete specific courses and required units selected from courses on the Subject Area Course Lists as follows:

- Acting List (18)
- Dance courses (any Dance List) (9)
- Directing List (8)
- Technical/Design List (12)
- Theatre History and Literature List (12-14)
- THEA 3010 Acting and Directing Studio (4)

■ Allowable lower division units: 12

C. Directing Option (66 units)

This option helps aspiring directors to choose a course of study which will prepare them for either an entry-level professional career or entrance into a graduate MFA program. New students must take THEA 3010 at their first opportunity to qualify for this option.

Students, with the agreement of an advisor, complete specific courses and required units selected from courses on the Subject Area Course Lists as follows:

- Directing List (12)
- Acting List (13)
- Technical/Design List (14)
- Dance courses (DANC 4200 and one composition course) (7)
- Theatre History and Literature List (16)
- THEA 3010 Acting and Directing Studio (4)

- Allowable lower division units: 14

D. Technical and Design Option (62 units)

This option provides a variety of specializations leading to careers in construction, operations, or design in areas including: costumes, scenery, lighting, sound, special effects, props, stage management, and technical management. Graduates have immediately entered the technical professions and have successfully applied to graduate design programs.

Students, with the agreement of an advisor, complete specific courses and required units selected from courses on the Subject Area Course Lists as follows:

Technical/Design List (26)

Theatre History and Literature List (12)

Acting List (6)

Directing and/or Dance Composition Lists (8)

Dance courses (Dance Technique or Dance Fundamentals Lists only) (4)

Elective courses (courses from Department of Art allowed) (6)

- Allowable lower division units: 12

E. Dance Option (60-65 units)

This option prepares students for a variety of arts, education, and recreation careers. Past majors have been accepted to a variety of graduate schools, including arts and professional programs.

Students, with the agreement of an advisor, complete specific courses and required units selected from courses on the Subject Area Course Lists as follows:

Beginning Dance Technique List (4)*

Intermediate Dance Technique List (4)*

Advanced Dance Technique List (6-8)*

Dance History List (8)

Dance Fundamentals List (8)

Dance Composition List (6-9)

Technical/Design List (12)

Acting for Dance List (4)

P E 3305 Structural Kinesiology (5)

DANC 3210 Movement Awareness and Analysis (3)

- Allowable lower division units: 14

SUBJECT AREA COURSE LISTS

Theatre Courses

Acting:

THEA 2005 Improvisation

THEA 2015 Stage Movement

THEA 2310 Interpretive Reading

THEA 3011 Advanced Acting -- Subtext

THEA 3012 Advanced Acting -- Scenes

THEA 3013 Advanced Acting -- Character

THEA 3015 Masks: Making and Performance

THEA 3020 Musical Theatre Techniques
THEA 3050 Teleplay Acting and Production
THEA 3485 Voice on Stage

Directing:

THEA 3210 Script Analysis
THEA 4021 Play Direction -- Sign and Symbol Theory in Production
THEA 4022 One-Act Production

Technical/Design:

THEA 1111 Theatre Backstage
THEA 2115 Costume and Clothing Construction
THEA 3111 Stagecraft Techniques
THEA 3112 Costume Techniques
THEA 3113 Lighting and Sound Techniques
THEA 3170 Technical Production
THEA 3418 Stage Makeup
THEA 3422 History of Costume
THEA 3423 Non-Western Costume
THEA 3424 Scene Painting and Graphic Language
THEA 3425 Visual Arts for Theatre
THEA 4418 Advanced Makeup and Maskmaking

Theatre History and Literature:

THEA 3201 Classical Greek and Roman Drama
THEA 3202 European Medieval and Renaissance Drama
THEA 3203 Modern European Drama
THEA 3207 Modern American Theatre
THEA 3208 Postmodern Theatre
THEA 3226 The Woman Artist
THEA 3227 Wartime Art, Theatre and Film
THEA 3228 Women in Dramatic Literature
THEA 3230 Shakespeare on Film
THEA 3232 Modern Art and Theatre
THEA 4375 Ethnic and Immigrant Theatre in the United States

Acting for Dance:

THEA 3015 Mask: Making and Performance
DANC 3426 Collaborative Theatre and Dance

Dance Courses

Beginning Techniques:

DANC 1002 Country and Western Line Dancing
DANC 1004 Beginning Modern Dance
DANC 1008 Ballroom Dance
DANC 1019 Beginning African Dance
DANC 1027 Beginning Jazz Dance
DANC 1029 Beginning Ballet
DANC 1031 Beginning Tap Dance
DANC 1033 Hip Hop Dance

Intermediate Techniques:

DANC 2004 Intermediate Modern Dance

DANC 2008 Intermediate Social Dance
DANC 2027 Intermediate Jazz Dance
DANC 2029 Intermediate Ballet
DANC 2030 Fundamentals of Modern Dance

Advanced Techniques:

DANC 3440 Modern Technique
DANC 3504 Advanced Modern Dance
DANC 3527 Advanced Jazz Dance

Composition:

DANC 3022 Improvisation and Beyond
DANC 3220 Dance Composition and Production I
DANC 4220 Dance Composition and Production II

Fundamentals:

DANC 2020 Rhythm and Music for Dance
DANC 2023 Stretching and Conditioning for Dance
DANC 3021 Cultural Forms of Dance
DANC 3235 Dance for Children
DANC 3241 The Dance Experience
DANC 3690 Dance: Art and Education into Therapy

Dance History:

DANC 4200 Dance Through the Ages
DANC 4201 Dance in Modern Society
DANC 4202 Women in Dance

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

MINOR REQUIREMENTS

I. Theatre Minor (32 units)

The student must complete at least 32 units, 18 of which must be upper division units selected in consultation with a Theatre advisor.

A. Complete the following (12 units):

THEA 1010 All the World's a Stage (4)
THEA 2310 Oral Interpretation of Literature (4)
THEA 3111 Stagecraft Techniques (4) or THEA 3112 Costume Techniques (4)

B. History, Theory, Literature (4 units)

Select four units from the following:

THEA 3201 Classical Greek and Roman Drama (4)
THEA 3202 European Medieval and Renaissance Drama (4)
THEA 3203 Modern European Drama (4)
THEA 3207 Modern American Theatre (4)

THEA 4800 Selected Topics in Theatre (4)

- C. Performance, Production, Technical, Design Workshops (6 units)
 - THEA/DANC 3180** Theatre Workshop--Technical or Costume (2)
 - THEA/DANC 3181** Theatre/Dance Workshop--Performance (1)
 - THEA/DANC 3182** Theatre Workshop--Production Crew (2)

D. Electives by advisement (10 units)

II. Dance Minor (32-33 units)

A. Upper Division (22-23 units)

- THEA/DANC 3181 Theatre/Dance Workshop--Performance (1)
- DANC 3210 Movement Analysis and Awareness (3)
- DANC 3220 Dance Performance, Composition, and Production I (3)
- DANC 3241 The Dance Experience (3)
- DANC 4200 Dance through the Ages (4) or DANC 4201 Dance in Modern Society (4)
- DANC 4220 Dance Performance, Composition, and Production II (3)
- P E 3305 Structural Kinesiology (5)

Dance Electives (4 units)

B. Performance Competencies (6 units)

Students must complete the competencies listed below by taking courses in ballet, modern, jazz, African, ballroom, and/or folk dance.

- Two beginning classes (2 units)
- Two intermediate classes (2 units)
- One advanced class (2 units)

THEATRE OPTION: LIBERAL STUDIES

Area V (4 units)

THEA 1010 All the World's a Stage (4)

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

THEA 2310 Oral Interpretation of Literature (4)

THEA 3111 Stagecraft Techniques (4)

Four units taken from:

- THEA 3180 Theatre Workshop--Technical or Costume (2)
- THEA/DANC 3181 Theatre/Dance Workshop--Performance (1)
- THEA 3182 Theatre Workshop--Production Crew (2)

Twelve units of upper division theatre coursework selected from:

- THEA 3201 Classical Greek and Roman Drama (4)
- THEA 3202 European Medieval and Renaissance Drama (4)
- THEA 3203 Modern European Drama (4)
- THEA 3207 Modern American Theatre (4)
- THEA 3210 Script Analysis (4)
- THEA 3225 Theatre Today (4)
- THEA 3610 Interpretation of Children's Literature and Storytelling (4)

THEA 3650 Dramatic Activities for Children (4)
THEA 4445 Theatre Arts Management (4)

DANCE OPTION: LIBERAL STUDIES

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

A. Required courses (17 units):

DANC 3210 Movement Analysis and Awareness (3) >br> DANC 3220 Dance Performance, Composition and Production I (3)

DANC 3235 Dance for Children (4)

DANC 3241 The Dance Experience (3)

DANC 4200 Dance Through the Ages (4) or DANC 4201 Dance in Modern Society (4)

B. Four units selected from:

DANC 2020 Rhythm and Music for Dance (2)

THEA 3180 Theatre Workshop-- Technical or Costume (2)

DANC 4220 Dance Performance, Composition and Production II (3)

DANC 3690 Dance Therapy (4)

C. Performance competencies (3 units)

Two units selected from:

DANC 1003 Beginning Folk Dance (1)

DANC 1004 Beginning Modern Dance (1)

DANC 1008 Beginning Ballroom Dance (1)

DANC 1019 Beginning African Haitian Dance (1)

DANC 1027 Beginning Jazz Dance (1)

DANC 1029 Beginning Ballet (1)

One unit selected from:

DANC 2003 Intermediate Folk Dance (1)

DANC 2004 Intermediate Modern Dance (1)

DANC 2027 Intermediate Jazz Dance (1)

DANC 2029 Intermediate Ballet (1)

COURSES

Theatre

1005 How to See a Play (4)

An introduction to contemporary drama on the stage. How the printed play is translated into visual and aural images. Attendance at selected theatre events is required. Recommended for non-majors. (A)

1010 All the World's a Stage (4)

An exploration of how diverse cultures throughout history have created theatre; how representative playwrights have mirrored the concerns of their times through their plays; and how theatre artists interpret these plays. Attendance at selected theatre events is required. Recommended for non-majors. (A)

1012 Exploring Creativity in Theatre and Dance (3)

Explorations and improvisations in solo and collaborative stage performance modes directed at releasing creative energies, expanding mental boundaries, and increasing the range of expressive means. Repeatable. Only 3 units applicable to major. Two hrs. lect., 2 hrs. act. (F or W)

1020 Discover Acting (3)

Introduction to acting techniques to improve self-expression and observation skills. An introductory acting course designed for non-majors. Suitable as an elective for those who work with people of all ages in education, recreation, business and mass communication. (W)

1111 Theatre Backstage (2)

Lectures and demonstrations on problems of stagecraft, costume, lights, sound, props, special effects, producing, improvisation, and dance used to create theatrical illusions. Requires simultaneous enrollment in activity: one section of THEA 3180 or 3182 for a total of four units. (F)

2005 Acting Fundamentals: Improvisation (3)

Explorations in non-scripted modes of dramatic presentation involving exercises in visual and oral expressions. Course culminates in a class-created theatre piece. Two hrs. lect., 2 hrs. act.. (F)

2015 Acting Fundamentals: Stage Movement (2)

Preparatory acting work focusing on relaxation, concentration, trust, psychology of stage space, relationships, energizing, focus, gesture, business, rhythm, and style. Four hrs. act. (W)

2115 Costume and Clothing Construction (2)

An introduction to clothing construction with an emphasis on costumes. Basic principles of flat patterning and draping techniques for fashion and theatre. Computer patterning possible. One hr. lect., 2 hrs. act. (Alt. Y)

2310 Oral Interpretation of Literature (4)

The artistic process of studying literature through performance. The critical analysis of texts and guided practice in the effective use of voice and body to communicate poetry, prose, and dramatic texts. (F)

3000 Theory of Theatre Performance (4)

A series of theatre activities to demonstrate the nature and execution of theatre performance. Combines improvisation, physicalization of subtext, creative dramatic techniques, and explorations of collaborative performance. Three hrs. lect., 2 hrs., activity.

3010 Acting and Directing Studio (4)

Exercise and seminars for improving performers; development of artist's self-diagnostic tools; strategies for academic and career development. Open to those with performance background and interest in performance options. Two hrs. lect., 4 hrs. act. (F)

3011 Advanced Acting: Subtext (3)

Development of actor's emotional and sensory memory, tasks, intentions, strategies, obstacles, sense of place and circumstances. May be repeated once for credit with different instructor, but only 3 units may be applied to the major. Prerequisites: THEA 2005, 2015. Six hrs. act. (F)

3012 Advanced Acting: Scene Study (3)

Acting with script using textual and subtextual methods. May be repeated once for credit with different instructor, but only 3 units may be applied to the major. Prerequisites: THEA 3011, 3210. Six hrs. act. (W)

3013 Advanced Acting: Characterization (3)

Methods of building character through research, bio-data, and script analysis. May be repeated once for credit with different instructor, but only 3 units may be applied to the major. Prerequisites: THEA 3011, 3012, 3210. Six hrs. act. (Sp)

3015 Masks: Making and Performance (4)

History, theory, types, and construction of masks. Mask exercises as aids in storytelling, character development, and expanding creative awareness. Teaching and therapy techniques. Culminates in a performance. Two hrs. lect., 4 hrs. act.

3020 Musical Theatre Technique (3)

Exercises in song interpretation for musical comedy purposes, including familiarity with various song structures. Open to non-majors. May be repeated once for credit, one attempt may be applied to major. Two hrs. lect., 2 hrs. act. (Y)

3030 Acting Skills for Business and Systems Management (4)

Creative methods for viewing situations from all sides, reaching conclusions, developing positions, and communicating views effectively. Roles managers play in collaboratively developing plans of action including those for sales and project development. Creative communication strategies. Three hrs. lect., 2 hrs. act. (Y)

3050 Teleplay Acting and Production Workshop (3)

Producing an original television movie for broadcast. Includes techniques for both camera acting and studio operation. May be repeated once. One hr. lect., 4 hrs. act. (Sp)

3111 Stagecraft Techniques (4)

An introduction to stage scenery. Building a basic set and drawing an appropriate floor plan are emphasized. Included are production techniques related to actors, directors, technicians, and designers. Open to non-majors. Two hrs. lect., 4 hrs. act. (F)

3112 Costume Techniques (4)

An introduction to stage costuming. Basic principles of costume design, construction, research methods, and rendering techniques are emphasized. Open to non-majors. Two hrs. lect., 4 hrs. act. (W)

3113 Lighting and Sound Techniques (4)

An introduction to stage lighting and sound. Lighting segments emphasize recognizing, hanging, focusing, and operating light instruments. Sound segments emphasize recording and sound design concepts. Open to non-majors. Two hrs. lect., 4 hrs. act. (Sp)

3170 Technical Production (4)

Case studies in technical theatre production, including research, visualization, material selection, construction, and finishing. Scenery, rigging, and props. Open to non-majors. Repeatable. Two hrs. lect., 4 hrs. act. (Alt. F)

3180 Theatre Workshop -- Technical or Costume (2)

Production participation in costume and scene shops preparing all technical elements of shows. Repeatable. Four hrs act. (F, W, Sp)

3181 Theatre/Dance Workshop -- Performance (1)

On-stage participation in departmental productions. Open to all students who successfully audition. Enrollment in THEA/DANC 3180 may be required. Cross-listed with DANC 3181. May be repeated for credit. (F, W, Sp)

3182 Theatre Workshop -- Production Crew (2)

Production participation on stage crew, including lights, sound, dressing, makeup, followspot, flies, props, etc. Repeatable. Four hrs. act. (F, W, Sp)

3183 Theatre Workshop -- Production Staff (3)

Practicum in design and production management for directors, designers, stage managers and crew heads, including development of portfolio. May be repeated for credit. Six hrs. act. (F, W, Sp)

3184 Theatre Workshop -- Festival Production (2)

Preparation and participation in a significant administrative or technical assignment. Four hrs. act. (W)

3185 Theatre Workshop -- Studio Production (2)

Production participation in special show, including both acting and technical assignments. Repeatable for credit. Four hrs. act.

3201 Classical Greek and Roman Drama (4)

The historic development of early classical drama from the Greek period through the Roman, including the study of representative plays, theatre architecture, and production. Individual research on selected topics. (Alt. Y)

3202 European Medieval and Renaissance Drama (4)

The historic development of European drama from the Medieval period through the Italian Renaissance, Elizabethan period, and 17th Century, including the study of representative plays, theatre architecture, and production. Individual research on selected topics. (Alt. Y)

3203 Modern European Drama (4)

The historic development of European drama from 1800 to the present, including study of representative plays, physical aspects of the theatre, and production practices. Individual research on selected topics. (Alt. Y)

3207 Modern American Theatre (4)

Study of representative American playwrights and their theatre from 1920 to the present. Individual research on selected topics. (Alt. Y)

3208 Postmodern Theatre (4)

Development of postmodern theatre with its emphasis on the mixing of different styles and periods, its interspersing of multiple meanings in a text performance, and its self-consciousness about performance itself. Individual research on selected topics. (Alt. Y)

3210 Script Analysis: The Western Tradition (4)

Literary, textual, and structural analysis of plays for production, especially aspects involving play selection, dramaturgy, design, and visualization. Use of self-examination techniques. Individual research on selected topics. Open to students with experience attending plays. (F)

3225 Theatre Today (4)

Methods for developing a critical viewpoint on theatrical production through observation and analysis of production elements. Includes historical perspectives. Attendance at a variety of theatre events is required. May be used as major elective by advisement only. (F, Sp)

3226 The Woman Artist (4)

Roots of U.S. culture in roles of women artists, including traditional gender-based forms of art (weaving, ceramics, storytelling); the female body in theatre and plastic arts; women artists of Europe, Africa, Pacific Rim, Latin America, and U.S. (Alt. Y)

3228 Women in Dramatic Literature (4)

Classic heroines and villains in world drama, including Medea, Lady Macbeth, and Miss Julie. Investigation of the profound and often contradictory view of women as seen by the world's greatest dramatists. Recommended for non-majors. (Alt. Y)

3232 Modern Art and Theatre (5)

Survey of art and theatre from late 19th century to present, from Realism to Post-Modernist performance. Includes excursions to performances and art venues.

3310 Interpretation of Women's and Ethnic Literature (4)

Research, selection, and analysis of literature contributing to U.S. culture by women and ethnic minorities. Rehearsal and performance as Readers' Theatre. Two hrs. lect., 4 hrs. act. (W)

3311 Filipino Theatre (4)

A beginning to intermediate practicum in theatre of the Philippines. Literature, acting, and theatrical aspects; includes a performance. Repeatable once for credit. Two hrs. lect., 4 hrs. act. (Alt. Y)

3315 Multicultural Theatre Troupe (4)

Techniques for performing before multicultural audiences. Oriented for non-majors. Involves off-campus shows. Two hrs. discussion, 4 hrs. act.

3320 Improvisation Performance Group (3)

Perfecting "theatre sports," comedy improv, and serious topical improvisation styles for public performances on campus and at local colleges, high schools, and other organizations. Previous improv experience needed. Repeatable. Only 3 units applicable to major. 6 hrs. act. (W or Sp)

3418 Stage Makeup I (2)

A study of the theories of stage makeup, with practical experience in the application of these theories. One hr. lect., 2 hrs. act. (W)

3422 History of Costume (4)

The historic development of Western costume from Egyptian to modern styles. (Alt. Y)

3423 Non-Western Costume (4)

The development of non-Western clothing and costume. The important influences of Chinese, Japanese, Indonesian, Indian, and African clothing on all cultures. Recommended for nonmajors. (Alt. Y)

3424 Scene Painting and Graphic Language (4)

Exploration of methods of scenic painting. Problems in rendering, models, and full scale painting using scenic color media, texture treatment, and light and shadow techniques. Two hrs. lect., 4 hrs. act. (Alt. Y)

3425 Visual Arts for the Theatre (4)

The aesthetics and practice of sceneography, lighting, and costume in theatre including dance, opera, and drama. Basic techniques of drawing, painting, model building, research, and light plots. Prerequisites: THEA 2111, 2112, 2113, or consent of instructor. Two hrs. lect., 4 hrs. act. (Alt. Y)

3485 Voice on Stage (2)

Resonance, articulation, voice color, projection, pitch, and rate exercises for better voice use in stage presentation. Covers techniques for acting, media work, teaching, and business. Four hrs. act. (Sp)

3610 Interpretation of Children's Literature and Story Telling (4)

Techniques of story telling; selection and practice in reading poetry and prose for children. Suggested for elementary teachers and theatre majors. Two hrs. lect., 4 hrs act. (Alt. F, Su)

3650 Dramatic Activities for Children (4)

Creative dramatics as a tool for building and developing the creative capacities of children. Includes theatre games, improvisation, puppetry, mask making, and other drama activities. Two hrs. lect., 4 hrs. act. (Y)

3660 Children's Theatre Performance (4)

Theory and techniques of producing theatre for children, including preparation and rehearsal for annual production. Repeatable. Majors may substitute 4 units of THEA 3660 for either THEA 3180 or 3181. Two hrs. lect., 4 hrs. act. (W)

3898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the Theatre Arts major; a maximum of 4 units will be accepted toward the Theatre minor. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

4001 Therapy and Theatre (3)

Integration of theories of acting and psychotherapy. Use of acting skills for self-understanding. Integrating therapeutic and theatre knowledge to further empathy with culturally diverse clients, students, colleagues, and acting roles. Playing roles on stage & in life.

4021 Play Direction: Sign and Symbol Theory in Production (4)

Signs and symbols for use in production elements and fundamental play direction. Scrutiny of arts and myth, as well as experiments in deconstruction, collage, and *mise en scene*. Majors must have senior standing, others require permission of instructor. Two hrs. lect., 4 hrs. act. (W)

4022 One-Act Production (4)

Exercises in communication among directors, designers, and actors. The development of manifestos, points-of-view, and production concepts. Production methods and actual production. Two hrs. lect., 4 hrs. act. (Sp)

4188 Summer Repertory Theatre (8)

Participation both on and off stage in the various aspects of play production. This program will usually involve three productions. May be repeated once for credit. Twenty-four hrs. lab. (Su)

4375 Ethnic and Immigrant Theatre in the United States (4)

How ethnic groups have used theatre as a secular ritual, a means of self-expression, and as a search for identity. Most attention to the theatre of African, Asian, and Latin Americans; Yiddish and Italian immigrants also covered. Particular emphasis on local theatre companies, including visits to see their productions.

4418 Advanced Makeup and Maskmaking (2)

Advanced study of makeup for the theatre. Special makeup effects and mask making, including construction techniques. Use of masks as visual art. Mask techniques for teachers. May be repeated once for credit. One hr. lect., 2 hrs. act. (Alt. Y)

4445 Theatre Arts Management (4)

The principles of management with emphasis on theatre. House management, publicity, box office, ticket sales, business procedures, contracts and theatrical unions. Commercial and non-profit formats are compared. Students simulate starting their own theatre organization. (W)

4800 Selected Topics in Theatre (4)

Specialized study of selected topics in the history, theory, literature or production styles of theatre. May be repeated once with new content. Prerequisite: senior standing or consent of the instructor. (Alt. Y)

4900 Independent Study (1-4)

Dance

1002-1033* Beginning Technique Classes (1 each)** Two hrs. act.

1002 Country Western Line Dance (1)

1003 Folk Dance (1)

1004 Modern Dance (1)

1006 Brazilian Capoeira (1)

1008 Ballroom Dance (1)

1019 African Dance (1)

1027 Jazz Dance (1)

1029 Ballet (1)

1031 Tap Dance

1033 Hip Hop Dance (1)

1012 Exploring Creativity in Theatre and Dance (3)

(See THEA 1012 for course description.)

2003-2029* Intermediate Technique Classes (1 each) Two hrs. act.**

2003 Folk Dance (1)

2004 Modern Dance (1)

2008 Ballroom Dance (1)

2027 Jazz Dance (1)

2029 Ballet (1)

2020 Rhythm and Music for Dance (2)

Study and exploration of common rhythmic and musical forms used for dance accompaniment. Composition of and improvisation to simple rhythmic scores. One hr. lect., 2 hrs. act. (Sp)

2022 Contemporary Musical Theatre Dance (2)

Survey of dance in the contemporary musical. Both historical and contemporary choreographers and their influences within the context of musical theatre repertory. Open to all students with at least one year of dance training. Repeatable once for credit. One hr. lect., 2 hrs. act.

2023 Stretch Conditioning for Dance (2)

Conditioning the body through the use of weights, both free and Nautilus. Proper stretching techniques and dietary considerations. Repeatable for credit. Four hrs. act.

2030 Fundamentals of Modern Dance (2)

Students will be given opportunity to work on modern dance technique, improvisational skills and repertory. There will be a focus on the development of individual styles and performance techniques. Four hrs. act.

3021 Cultural Dance Forms (3)

Provides research skills and movement activities to inspire cross-cultural appreciation through dance. Audio-visual used to analyze, compare and contrast elements such as rhythm, symbolism, religion, dress, form, and function. Students share personal experiences and customs. Repeatable once for credit. Two hrs. lect., 2 hrs. act.

3022 Improvisation and Beyond (3)

Exploration of movement through improvisational techniques leading to dance making. Stepping stones to the development of choreography and performance. Fosters a supportive atmosphere while crafting dances through an individual approach. Six hrs. act.

3026 Jazz and Modern Dance (2)

Jazz and modern dance technique with repertory experience. Students will have experience in both styles and learn repertory. Performances at the end of quarter. Four hrs. act.

3180 Theatre Workshop -- Technical or Costume (2)

(See THEA 3180 for course description.)

3181 Theatre/Dance Workshop--Performance (1)

(See THEA 3181 for course description.)

3182 Theatre Workshop -- Production Crew (2)

(See THEA 3182 for course description.)

3210 Movement Analysis and Awareness (3)

A qualitative approach to classifying and recording functional and expressive movement based on the effort/shape concepts of Rudolph Laban. A systematic observation and analysis of human movement through individual and group exploration. Elements of time, space, force and flow emphasized. May be repeated once for

credit by post-baccalaureate students who have taken the course as undergraduates. Two hrs. lect., 2 hrs. act. (F)

3215 Dance Touring (3)

Choreography, repertory, and performance techniques. Participants produce original dances and perform as part of a touring dance company at local schools. May be repeated for credit. One hr. lect., 4 hrs. act. (W, Sp)

3220 Dance Performance, Composition and Production I (3)

Introduction to basic compositional dance forms. Exploration, improvisation, selection and organization of choreographic material. May be repeated once for credit. Six hrs. act. (F)

3235 Dance for Children (4)

Theory and techniques for developing movement and expressive capabilities of the child through dance participation. Opportunities to work with children are provided. Prerequisite: beginning level dance course (e.g. DANC 1000 series) or consent of instructor. Three hrs. lect., 2 hrs. act. (F)

3241 The Dance Experience (3)

Study of dance theory and its development as a creative form and process; exploration of various dance forms, techniques and methods. Two hrs. lect., 2 hrs. act. (W)

3426 Collaborative Dance and Theatre (3)

Collaborative theatre techniques to develop and produce a Spring Concert. Dance, music, and theatre utilized in the production with attention to the development of original score, choreography and text. Repeatable for credit. One hr. lect., 4 hrs. act.

3440 Modern Technique (3)

Intermediate and advanced skills in modern dance technique, improvisation and repertory. Attention given to development of individual styles and performance techniques. One hr. lect., 4 hrs. act.

3504-3527* Advanced Technique Classes (2 each)**

Four hrs. act.

3504 Modern Dance (2)

3527 Jazz Dance (2)

3690 Dance: Art and Education into Therapy (3)

Dance/movement therapy and its application to diverse clinical populations. The emergence of dance as a healing art in relation to dance as a performance art and as education. Discussion, lecture, audio visuals, and movement exploration of non-verbal approaches to therapy. Two hrs. lect., 2 hrs. act. (F or W)

4200 Dance through the Ages (4)

The history and evolution of dance from its anthropological and religious sources to the Renaissance period, i.e., preliterate cultures, ancient civilizations, medieval, and Renaissance periods. (Alt. Sp)

4201 Dance in Modern Society (4)

The development of dance from the post-Renaissance period to the present, i.e., modern dance, black dance, men in dance, social dance, musical theatre and avant garde. Social, political, psychological, and spiritual influences. (Alt. Sp)

4202 Women in Dance (4)

Selected women dancers and choreographers from diverse cultures who have played significant roles in the history of European and American theatrical dance from the Romantic Era to the Contemporary Period. (Alt. W)

4220 Dance Performance, Composition and Production II (3)

Advanced work in compositional dance forms. Development of skills in group choreography and performing techniques. Emphasis on choreography as a creative art process. May be repeated once for credit. Prerequisite:

DANC 3220 or consent of instructor. Six hrs. act. (W)

4900 Independent Study (1-4)

* Dance Option majors must demonstrate beginning competency in at least four (4) different techniques, intermediate competency in three (3) different techniques, and advanced competency in two (2) different techniques.

** May be repeated for credit.

*** Each course may be repeated only once.

Online University Catalog
California State University - Hayward
Last Update: 04/16/96

Undeclared Major

- [INTRODUCTION](#)
- [ADVISING](#)
- [CHOOSING A MAJOR](#)

UNDECLARED MAJOR

University Advisement Center
Office: Warren Hall Lobby, First floor
Phone: (510) 885-4682

Coordinator:
Jackie Charonis

INTRODUCTION

Cal State Hayward enrolls between 500 and 600 undeclared undergraduate students each year. Although the greatest numbers are at the freshman-sophomore levels, there are also many upper division undeclared students. Unless one selects a major with a large lower division component such as one of the sciences, Liberal Studies, or Business Administration, there is generally no problem with using the first year or two of one's degree exploring interests and career options before choosing a major specialization. (Declared students often change their majors one or more times before completing the B.A. or B.S. degree.) The university offers a variety of services to assist undeclared students and to help them with major career choices.

ADVISING

Responsibility for the academic advisement of undeclared students resides with the University Advisement Center in the lobby of Warren Hall. In addition, many other university offices provide services to students. Undeclared students should try to satisfy most of their General Education-Breadth Requirements, except for the 12-unit upper division G.E. requirement, in their first two years. Until a major is selected, a firm G.E. evaluation cannot be performed because no course with the same prefix as the student's major may be applied to General Education. However, courses dropped from G.E. use are normally transferable to the major, so nothing has been lost.

CHOOSING A MAJOR

The university offers many services to assist students seeking to choose a major or change to a more appropriate one. Remember that a career and a major are not the same thing, that many college graduates are employed in fields not

directly related to their majors, and that most people change careers more than once in their lifetime.

Each Cal State Hayward department can inform prospective majors of the nature of their programs, the career possibilities, the entry level salaries, and other pertinent information. The offices and phone numbers of the departments are listed in the *Class Schedule*.

Students are encouraged to explore career/major options with the Career Development Center (WA 509) and the University Advisement Center. Academic counseling, career and employment information, aptitude and interest testing, computer programs, and a variety of other services are available.

For further information about career opportunities, students may attend the quarterly orientation and advisement programs offered by Student Life Programs (WA 455). The Department of Educational Psychology (Counseling) offers a two-unit course, EPSY 1001 Career Planning for College Students, which is offered most quarters and is open to all students.

Because of the large numbers of students enrolled in some majors, particularly Business Administration, Liberal Studies, and the sciences, and the sequential nature of courses in areas like Mathematics and Music, early choice of a major is wise for students interested in these areas. Students who think they might choose majors in these areas are encouraged to sample a few courses early in their collegiate careers to determine their aptitude and interests. In most arts, humanities, and social sciences majors, however, early choice of a major is not necessary.

Urban Studies

- [MINOR IN URBAN STUDIES](#)

URBAN STUDIES

Department of History
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 4036
Phone: (510) 885-3207

MINOR IN URBAN STUDIES

The minor in Urban Studies consists of a minimum of 24 units of work selected from the following lists of courses. No more than 9 units of work in a single department may be applied to the minor. With the approval of an Urban Studies advisor, a maximum of 2 other appropriate courses, including independent study or directed research, may be substituted for those below.

ACCT 4280 Accounting for Non-Profit Organizations (4); ANTH 4310 Field Course in Ethnography (5); ART 4081 The City: A Collective Work of Art (4); CRJA 4700 Community Based Corrections (4); ECON 3370 Public Sector Economics (4), 3500 Regional and Urban Economics: Survey (4); ENVT 3000 Environmental Field Studies (5), 3460 Environmental Impact Analysis (4); E S 3290 Community Development (4); GEOG 3330 Urban Geography (4), 3400 Field Geography of the San Francisco Bay Region (5), 4325 Field Course in Cultural-Urban Geography (5);

HIST 3503 History of the San Francisco Bay Area (4), 3563 The City in United States History: A Topical Survey (4), 3567 Blacks in the United States (4); POSC 3120 State and Local Politics and Government (4), 3130 Urban Politics (4), 3150 Politics of California (4), 3800 Public Policy Analysis (4); PUAD 4800 Public Administration and Society (4); REC 3700 Community Organizations in the Urban Setting (4), 4300 The Physical Setting of Leisure Services (4); SOC 3520 Sociology of Minority Groups (4), 3700 Introduction to Social Services (4), 3710 Social Policy (4), 4450 Urban Sociology (4)

Any new or transfer course judged by an Urban Studies advisor to have a significant urban studies content.

At least 18 units in the minor must be outside the student's major department.

Women's Studies [WOST]

- [GENERAL INFORMATION](#)
- [MINOR IN WOMEN'S STUDIES](#)
- [WOMEN'S STUDIES OPTION: LIBERAL STUDIES](#)
- [G.E. REQUIREMENT](#)
- [COURSES](#)

WOMEN'S STUDIES

Women's Studies Program
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 4099
Phone: (510) 885-3255

Professors:

Carol Becker, Lynne O. Elkin, Roxanne D. Ortiz (Interim Director), Yolanda Patterson, Helen Schulak, Emily Stoper

Associate Professors:

Barbara P. Paige, Colleen V. Fong, Patricia Guthrie, Dvora Yanow

Lecturers:

Donna Barnes, Christopher Carrington

GENERAL INFORMATION

Women's Studies is intended to increase a student's knowledge, interest and appreciation of the needs, contributions, problems as aspirations of women--and also of the way that gender shapes the lives of both women and men. Women's Studies attempts to illuminate the subject matter of much of the rest of the curriculum from the double perspective of women and gender. The courses emphasize cultural diversity. The minor prepares students for jobs that specialize in serving women as consumers, as clients of government programs, as political actors, etc. The program also offers a Liberal Studies option in Women's Studies.

MINOR IN WOMEN'S STUDIES

No more than six units in the major department, nor more than 8 units of lower division courses may be applied to the minor. No more than four units may be taken on a "CR/NC" basis. Altogether, 24 units are required. Students who wish to minor in Women's Studies should see the director as soon as possible.

I. Core Courses (8-12 units)

WOST 1001 Perspectives on Women (4)

WOST 1002 Women in Contemporary Society (4)

WOST 3100 Seminar in Women's Studies (May be used twice in the minor with the consent of the Women's Studies Director provided the student has taken WOST 1001 or 1002.)

II. Electives in Women's Studies (8-12 units)

Two or three courses with special reference to the status and problems of women selected from:

ENGL 3650 Women and Literature (4); HIST 3124 Women in Ancient and Medieval Europe (4), 3571 Women in American History (4); MCOM 4500 Women in Media (4); POSC 3170 Public Policy and the Family (4), 3340 Women and Politics (4); PSYC 3410 Psychology of Women (4); SOC 3411 Sociology of Sex Roles (4); WOST 2000 Internship in Women's Agencies (4), 3400 Women and Careers (4), 3410 Women, War and Revolution (4); WOST 3420 Immigrant and Refugee Women (4); WOST 3500 Portrayal of Women in the Movies (4), 3510 Women in Myth and Prehistory (4), 3520 Mothers, Daughters and Sons (4), 3530 Women and Their Bodies (4), 4900 Independent Study (4)

III. Elective in a Related Field

Four units should be selected with an advisor in Women's Studies from the following:

ENGL 3650; HIST 3124, 3571; MCOM 4500; POSC 3170; PSYC 3410; SOC 3411; WOST 2000, 3400, 3410, 3420, 3500, 3510, 3520, 3530, or 4900 if not used to complete requirement II above.

ANTH 3110 Primate Social Behavior (4), 3400 Social Anthropology (4), 3740 Cross-Cultural Studies in Child-Rearing (4), 3745 Cross-Cultural Studies in Human Sexuality (4); BIOL 3060 Human Sexuality (4); E S 3400 Ethnic Writers (4) (when emphasis is on women writers); 3810 History of Minority Education (4); F L 4465 A Single Theme in Spanish Literature across the Centuries (4) (when the theme focuses on women), 4495 A Single Movement, Country, or Theme: Spanish American Literature (4) (when the theme focuses on women); HIST 3136 Renaissance Woman (4), 4710 History and Trends in Nursing (4);

HDEV 1200 Adult Development Issues (4), 4001 Aging in Modern Society I (4), 4300 Adult Development (4), 4400 Adolescence (4), 4700 Childhood Development (4); PHIL 3510 Human Rights and Social Justice (4); P E 1018 Self Defense for Women (4); PSYC 3520 Interpersonal Processes (4); 3540 Groups and Organizations (4), 4420 Developmental Psychology (4), 4610 Psychology of Personality (4); SOC 3410 Sociology of the Family (4), 3414 Single Lifestyles (4), 3415 Sociology of the African American Family (4), 3416 Sociology of the Mexican American Family (4), 3500 Social Psychology (4), 3501 Love and Friendship (4)

It is recommended that all students in the minor take at least one course that has a primary focus on minority women in America.

Other Elective Courses

Other elective courses (with appropriate content) may be approved by the Women's Studies Committee as they are developed by departments.

WOMEN'S STUDIES OPTION: LIBERAL STUDIES

Area VII, Credential Track or Area VI, Liberal Arts Track (24 units)

WOST 1001 Perspectives on Women (4) or WOST 1002 Women in Contemporary Society (4)

Five additional upper division courses chosen in consultation with a Women's Studies advisor (20 units)

G.E. REQUIREMENT

The courses satisfying the *Cultural Groups/Women's Studies G.E. requirement* are listed in the *Class Schedule*. Not all courses applicable to the Women's Studies Minor meet this G.E. requirement. Please check the list. Also, where WOST is listed in the G.E. program, it refers only to courses with that prefix, not to other courses applicable to the minor.

COURSES

1001 Perspectives on Women (4)

The observed similarities and differences in the behavior of women and men as seen from the perspective of art, history, literature, philosophy, biology, and psychology. How these differences came about and what the future may hold. (Tent. A)

1002 Women in Contemporary Society (4)

Women's work, family roles, political behavior, and legal status today. Controversial issues raised by the women's movement explored from the perspective of different racial/ethnic groups and different political/economic/social systems. (Tent. A)

2000 Internship in Women's Agencies (1-4)

Work in community agencies and businesses serving women in fields of media, law, health, counseling, politics, etc. Repeatable for up to 8 units, 4 of which may be applied to minor. Prerequisites: 2.0 GPA; sophomore standing; instructor's approval. CR/NC grading only. (F,W,Sp)

3030 Immigrant and Refugee Women (4)

(See [Ethnic Studies chapter](#) for description)

3071 Writing Women's Lives - A Workshop (4)

See [ENGL 3071](#) for course description.

3100 Seminar in Women's Studies (4)

An interdisciplinary consideration of topics relevant to women, involving extensive writing assignments. May be repeated twice for credit with prior consent of Women's Studies Director. (W)

3400 Women and Careers (4)

Women's experience in the workforce from a political, sociological and historical perspective. Comparison of structure and practices in the corporate structure to those in sports and the military. Obstacles women face, coping mechanisms and strategies for success. (Tent. F)

3410 Women, War, and Revolution (4)

An interdisciplinary exploration of the role of women in wars and revolutions, past and present, using novels, poetry, autobiography, essays, interviews and scholarly studies. Women as civilian victims, war workers, peace activists and revolutionaries. (Y)

3420 Immigrant and Refugee Women (4)

Persistence and change in the minority female experience in America. Focus on prominent stereotypes of minority women, patterns of courtship and marriage, employment and career trends, birth control and sexual freedom, and feminism and racial solidarity. (Tent. W)

3500 Portrayal of Women in the Movies (4)

Changing portrayal of women in English-language movies from the 1930's to the present, including famous roles of Greta Garbo, Katherine Hepburn, Bette Davis, Jane Fonda, Meryl Streep, and others. Special emphasis

on the persistence/breakdown of stereotypes versus more realistic portrayals. (Tent. Sp)

3510 Women in Myth and Prehistory (4)

The roles of mortal women and goddesses in prehistoric times and their contemporary relevance. A multidisciplinary course exploring anthropological, literary, mythological, and psychological themes. (Tent. F)

3520 Mothers, Daughters, and Sons (4)

The relationship between mothers and their daughters and sons from a literary, psychological, and sociological point of view. Discussion of literature, film and art. (Tent. W)

3530 Women and Their Bodies (4)

An interdisciplinary course focusing on women's experiences of their bodies, especially in the areas of health and sexuality. (Tent. F)

3540 Adultery and Literature (4)

From Helen of Troy to television dramas, women and adultery continue to be a dominant feature, particularly in some literary and social aspects of past and present times. Exploration of the main aspects of this phenomenon.

3550 Women, Work, and Family Life (4)

The relationship of work and family, the dilemmas women face and strategies they use to negotiate work/family issue. The impact of economic/historical/sociological factors including gender, race, and class, all influencing work and family life.

3938 Italian American Women (4)

(See [Modern Languages and Literatures chapter](#) for description.)

4900 Independent Study (1-4)

4921 Russian Women in Perspective (4)

The roles of women in Russian society. The experience of Russian and American women compared and contrasted. Russian historical background and contemporary reality feminist issues, and dissent. Lecture and discussion based on real Soviet women studies, personal narrative, works of literature, and film.

4922 Women of the Classics (4)

The contrast between the reality and the image of woman as protagonist and actor of literary genres and as persona in Classic Medieval, and early Renaissance literature, religion, and society. Lecture and discussion based on works of literature.

Youth Services Administration

- [PROGRAM INFORMATION](#)
- [MINOR REQUIREMENTS](#)
- [CERTIFICATE PROGRAM](#)

YOUTH SERVICES ADMINISTRATION

Department of Recreation and Community Services
School of Education
Office: Art and Education Bldg. 246
Phone: (510) 885-3043

Professor:

Susan E. Sunderland

PROGRAM INFORMATION

The programs in Youth Services Administration are intended to prepare students for roles of professional leadership in voluntary youth and human services organizations. These organizations include, but are not limited to: American Red Cross, Big Brothers/Big Sisters, Boys Clubs, Boy Scouts, Camp Fire, 4-H, Girls Clubs, Girl Scouts, Junior Achievement, YMCA, and YWCA.

Students pursuing a baccalaureate degree may have the program recorded on their records as a minor; those who have no degree objective can receive a certificate for completion of the program. A person may not receive both the minor and the certificate.

MINOR REQUIREMENTS

The minor consists of 36 units and must be part of a baccalaureate degree.

I. Core Requirement (16 units)

REC 2200 Programming for Recreation and Community Services (4)

REC 3205 Volunteer Administration (4)

REC 3700 Community Organizations in the Urban Setting (4) or SOC 3700 Introduction to Social Services (4)

An appropriate internship course (4 units minimum):

REC 2500 Program Fieldwork (4)

SOC 4121 Field Practice (4)

II. Management Requirement (4 units)

One of the following:

MGMT 3600 Theories of Management (4)

PUAD 4830 Organization Theory and Human Behavior (4)

REC 4000 The Administration of Leisure Services (4)

III. Communication Requirement (4 units + U.W.S.R.)

One of the following:

ENGL 3005 The Study of Language (4); SPCH 1000 Principles of Speech Communication (4), 1004 Interpersonal Communication (4), 3411 Argumentation and Debate (4), 3510 Small Group Communication (4), 4830 Intercultural Communication (4); Completion of the University Writing Skills Requirement (UWSR)

IV. Human Understanding Requirements (12 units)

One of the following (4 units):

E S 1001 Ethnic Experience in America I: Minorities (4), 1200 Introduction to Mexican American/Latino Studies (4), 1300 Introduction to Native American Studies (4), 2100 Blacks in the Americas (4), 3105 African American Identity (4), 3305 Contemporary Native American Life (4); SOC 3520 Sociology of Minority Groups (4)

One of the following (4 units):

E S 4290 Latino Politics and Public Policy (4); HIST 3563 The City in United States History: A Topical Survey (4); REC 1000 Nature and Scope of Recreation and Community Services (4); SOC 4450 Urban Sociology (4)

One of the following (4 units):

HDEV 4400 Adolescence (4); SOC 3410 Sociology of the Family (4)

CERTIFICATE PROGRAM

The certificate program in Youth Services Administration consists of the same 36 units as the Youth Services Administration minor, but may be earned without a degree.

Undergraduate Programs

- [GRADUATE PROGRAMS](#)
- [ACADEMIC ORGANIZATION](#)

GRADUATE PROGRAMS

Cal State Hayward offers master's degrees in 25 fields (in addition to the Special Major). Other programs lead to teaching, specialist, pupil personnel services, and administrative services credentials.

Graduate Degrees and Options

Anthropology, M.A.

Biological Science, M.S.

Business Administration, M.B.A.

- Accounting Option
- Administration Option
- Business Economics Option
- Computer Information Systems Option
- Executive Option
- Finance Option
- Human Resources Management Option
- International Business Option
- Management Sciences Option
- Marketing Management Option
- New Ventures--Small Business Management Option
- Operations Research Option
- Taxation Option

Business Administration, M.S.

- Computer Information Systems/Quantitative Business Methods Option

Chemistry, M.S.*

- Biochemistry Option

Computer Science, M.S.

Counseling, M.S.*

- Clinical Child Psychology Option
- Marriage, Family, and Child Counseling Option

Economics, M.A.*

- Austrian School of Economics Option
- Comparative Economic Systems Option
- International Economics Option
- Labor Economics Option
- Monetary Economics Option
- Public Sector Economics Option

Educational Leadership, M.S.

English, M.A.*

- Teaching English as a Second Language Option

Geography, M.A.

Geology, M.S.*

- Environmental Geology Option

History, M.A.*

- Public History Option
- Teaching Option

Kinesiology, M.S.

- Exercise Physiology Option
- Professional Perspectives Option
- Skill Acquisition-Sport Psychology Option
- Sport Humanities Option

Marine Sciences, M.S.

Mathematics, M.S.

- Applied Mathematics Option
- Mathematics Teaching Option
- Option 1

Multimedia, M.A.

Music, M.A.

Public Administration, M.P.A.

- Health Care Administration Option
- Organization Change Option
- Public Management Option
- Public Policy Development Option

Sociology, M.A.

Special Education, M.S.

- Learning Handicapped Option
- Severely Handicapped Option

Education, M.S.

Curriculum Option
Educational and Psychological Studies Option
Reading Instruction Option

Special Major, M.A.

Special Major, M.S.
Speech Communication, M.A.
Speech Pathology and Audiology, M.S.
Statistics, M.S.
Taxation, M.S.

Credential Programs

Adapted Physical Education Specialist
Bilingual, Cross-Cultural, Language, and Academic Development Emphasis
Clinical Rehabilitative Services
Cross-Cultural, Language, and Academic Development Emphasis
Internship in Administrative Services
Multiple Subject Teaching
Preliminary Administrative Services
Professional Administrative Services
Pupil Personnel Services
 School Counseling
 School Psychology
Reading Specialist
Single Subject Teaching
Special Education Specialist
 Learning Handicapped
 Severely Handicapped

Certificate Programs

The criteria for regular certificate programs are described in the Certificate Programs chapter. Special Certificates are described in the Special Major chapter.

Biotechnology
Cross-Cultural, Language, and Academic Development (CLAD)
Children's Literature
Taxation

ACADEMIC ORGANIZATION

California State University, Hayward is organized into four schools: Arts, Letters and Social Sciences (ALSS); Business and Economics; Education and Allied Studies; and Science. Each school has significant responsibility for its own curricula, faculties, students, and budgets. The school dean, aided by an associate dean and an administrative assistant, is the chief administrative officer of each school. (The names of these officers appear in the University Administration section.) The Deans' offices are located as follows: ALSS, eighth floor of Warren Hall (885-3161); Business and Economics, second floor of the Music and Business Building (885-3311); Education and Allied Studies, first floor of the Art and Education Building (885-3072); and Science, first floor of the North Science Building (885-3441). The Special Majors are administered by the Associate Vice President, Curriculum and Academic Programs, on the eighth floor of Warren Hall (885-3716). The university organizational table at the beginning of the Undergraduate Programs chapter indicates the departments and programs of each school and the interdisciplinary programs.

School of Arts, Letters and Social Sciences

The School of Arts, Letters and Social Sciences is the largest in the university and includes 18 departments. It embraces the creative arts, the humanities, the social and behavioral sciences, and several applied disciplines.

Master's Degrees

Anthropology (M.A.)
English (M.A.)
Geography (M.A.)
History (M.A.)
Multimedia (M.A.)
Music (M.A.)
Public Administration (M.P.A.)
Sociology (M.A.)
Speech Communication (M.A.)
Speech Pathology and Audiology (M.S.)

Credential

Clinical Rehabilitative Services

School of Business and Economics

Mission Statement:

The School of Business and Economics provides excellence and innovation in integrating quality teaching and learning, with applied research and relevant experience to a diverse clientele from the San Francisco Bay Area to the global community.

Core Values:

1. Value diversity in students, faculty, staff and other stakeholders
2. Commitment to and synergy between regional and global constituencies
3. Commitment to excellence in teaching, curriculum delivery, and applied research
 - Latest technology and delivery systems
 - Flexibility in program delivery
4. Innovation and cooperative approach to business problems
 - Business-ready curriculum
 - Economic development initiatives
 - Team-oriented approach
 - Capitalize on opportunities
 - Entrepreneurial orientation
5. Commitment to ethics, honesty and integrity
6. Creating a collegial and supportive work environment
7. Commitment to outstanding service to our clientele

The graduate programs in business administration have been accredited by the American Assembly of Collegiate Schools of Business.

Master's Degrees

Business Administration (M.B.A.)
Business Administration (M.S.)
Economics (M.A.)
Taxation (M.S.)

Certificate Program

School of Education and Allied Studies

The mission of the School of Education and Allied Studies is to improve the quality of life within the communities it serves by offering excellent instructional programs which embrace not only the understanding of diverse subject matter but also the application of this subject matter to various professional roles. The school seeks to prepare graduates who will be active contributors to our complex, diverse society as we approach the twenty-first century.

The school offers programs for the professional preparation of teachers and service personnel in schools, colleges, and community agencies. Advanced preparation and graduate degrees are designed to expand the knowledge base of students, upgrade professional skills, and/or prepare students for doctoral study.

The professional education programs of the school are accredited by the California Commission on Teacher Credentialing and the National Council for Accreditation of Teacher Education.

The School also offers programs at the Contra Costa Campus in Concord through the Departments of Educational Leadership, Educational Psychology, and Teacher Education. Specific program information may be obtained by contacting the departments.

Master's Degrees

Counseling (M.S.)

Education (M.S.)

Educational Leadership (M.S.)

Kinesiology (M.S.)

Special Education (M.S.)

Credentials

Programs to prepare teachers, counselors, school psychologists, special educators, and supervisors and administrators have been approved by the State Commission on Teacher Credentialing. Information regarding specific requirements for each credential is available through the appropriate department.

1. Basic Teaching Credential Programs

- **Multiple Subject**

In addition to the regular multiple subject program, an optional bilingual emphasis program is available for students with proficiency in Spanish.

- **Single Subject**, which enables the credential holder to teach one or more of the approved single subjects.

2. Specialist Credential Programs. These credentials are to be obtained concurrent with or after obtaining a basic credential.

- **Adapted Physical Education**

- **Reading**

- **Special Education.** Areas of emphasis: severely handicapped, learning handicapped.

3. Emphasis Credential Programs

- **Bilingual, Cross-Cultural, Language, and Academic Development**

- **Cross-Cultural, Language, and Academic Development**

4. Services Credentials Programs

- **Preliminary Administrative Services**

- **Internship Credential in Administrative Services**

- **Professional Administrative Services**

- **Pupil Personnel Services**

- a. **School Counseling**

b. School Psychology

Certificate Programs

Children's Literature

Cross-Cultural, Language, and Academic Development (CLAD)

School of Science

The School of Science offers programs that provide a broad education in the physical, life, and health sciences; and in mathematics, statistics, and computer science. The career flexibility available to science students is one of the main advantages of a degree in the science area. The Master of Science programs are designed to allow students who possess appropriate qualifications to deepen their level of knowledge, upgrade their professional skills, and prepare for doctoral study.

Master's Degrees

Biological Science (M.S.)

Chemistry (M.S.)

Computer Science (M.S.)

Geology (M.S.)

Mathematics (M.S.)

Marine Sciences (M.S.)

Statistics (M.S.)

Certificate Program

Biotechnology

Interdisciplinary Programs

The interschool interdisciplinary programs are administered by the Associate Vice President, Curriculum and Academic Programs.

Master's Degrees

Special Major (M.A., M.S.)

Certificate Program

Special Certificate

Course Offering Key

Quarter of offering may be subject to change without prior notice.

F	-	Fall quarter
W	-	Winter quarter
Sp	-	Spring quarter
Su	-	Summer quarter
A	-	All quarters
Y	-	At least once a year
()	-	Unit credits appear in parentheses following title of course
Tent.	-	Tentatively (used with one of the basic symbols above)
Alt.	-	Alternate (used with one of the basic symbols above)

The lack of a symbol indicates uncertainty about offering the course in 1996-98.

Course Numbering Key

The numbering of courses is intended to describe the level at which they are offered. Any student, however, may enroll for any course if he or she has completed the listed prerequisites, except for certain graduate courses. See page

62 for explanation of CAN numbers.

0800-0999	Remedial courses (not for baccalaureate degree credit);
1000-1999	Freshman level
2000-2999	Sophomore level
3000-3999	Junior level
4000-4999	Senior level
5000-5999	Post baccalaureate and professional level
6000-6999	Graduate level
7000-7699	Upper division level extension**
7700-7999	Graduate level extension**

* It is not necessary to select an option for these degrees.

** See quarterly bulletin of Extended and Continuing Education.

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Last Update: 07/16/97

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What is the nature of graduate education?

The master's degree is awarded for completion of a planned and integrated program of advanced study. It recognizes that a student has mastered a particular field sufficiently to pursue creative or applied projects in that field.

When you complete your graduate degree, you will have acquired a mastery of a particular area of knowledge; an ability to relate that knowledge to knowledge in other disciplines; an ability to deal systematically with the concepts, theory, and principles in new situations; an ability to formulate and deal with problems on an advanced level; methodological, technical, and communication skills essential for advanced study; an ability to undertake independent investigation and research; abilities characteristic of professional performance; and attitudes conducive to continuous intellectual and professional development.

Every master's degree program includes what is termed a capstone experience. This may include a thesis or its equivalent, a comprehensive examination, a specialized internship, a project, or case study report, a musical recital, gallery showing, or other comparable achievement. Your completion of the capstone experience demonstrates that you have successfully integrated the various elements of the graduate learning experience and have gained an in-depth knowledge of your discipline.

What does it mean to be a graduate student?

As a graduate student, you are expected to demonstrate academic aptitude, achievement and motivation well above that of undergraduate students. Cal State Hayward assumes that you possess the maturity, responsibility, and scholarly integrity appropriate to post-baccalaureate study. In addition, you are expected to have a broad base of knowledge and skills, usually represented by a bachelor's degree, as well as competence in your field, normally demonstrated by a substantial amount of relevant upper division study.

You are considered a Graduate Student at Cal State Hayward if you have been admitted to a specific master's degree program as a "Conditionally Classified" or "Classified" student, or to an advanced credential program which can be earned in conjunction with a master's degree. Basic teacher credential programs constitute a separate area of post-baccalaureate work, and students in these programs are defined as "Classified Post-baccalaureate" students.

You will find information regarding master's degrees and credentials under the appropriate department's listing in the graduate section of this catalog.

Special orientation programs for new graduate students are offered each quarter by Student Life Programs. These programs are offered during the day and in the evening, and cover master's degree requirements, campus resources, registration, and preliminary academic advisement. You will be sent orientation program information before your first quarter of enrollment.

How do I apply for admission to graduate or post-baccalaureate studies?

All graduate and post-baccalaureate applicants (e.g., master's degree applicants, those seeking credentials, and those interested in taking graduate level courses for personal or professional growth) must file a complete graduate application as described in the graduate and post-baccalaureate admission booklet. Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the \$55 nonrefundable application fee. Since applicants for post-baccalaureate programs may be limited to the choice of a single campus on each application, 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 Graduate Studies Office of any California State University campus in addition to the sources noted for undergraduate applications.

There are four requirements for admission to graduate and post-baccalaureate studies at Cal State Hayward, and only in unusual circumstances does the university make exceptions to these criteria. (These requirements are in accordance with California State University regulations as well as Title 5, chapter 1, subchapter 3 of the *California Code of Regulations*.)

1. You must have completed a four-year college course of study and hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association, or have completed equivalent academic preparation as determined by appropriate campus authorities.
2. You must have been in good academic standing at the last college or university you attended.
3. You must have earned a GPA of at least 2.5 (A=4.0) in the last 90 quarter (60 semester) units you attempted.
4. You must satisfactorily meet the professional, personal, scholastic and other standards for graduate study - including qualifying examinations, established by your department. You may also be required to submit letters of recommendation. Refer to the appropriate [graduate department chapter](#) in this catalog for information.

If you wish to pursue a graduate Special Major, contact the Office of Curriculum and Academic Programs (WA 859, 510-885-3716) as soon as possible, preferably before you submit your admission application. You cannot be admitted as a Special Major until your program of study has been approved.

For information on changing major, degree, or credential objectives after you have been admitted, see "[How can I change my educational objective?](#)" in this chapter.

When you are admitted to the university, it will be in one of the following categories.

Unclassified Post-baccalaureate

If you are admitted as an "Unclassified Post-baccalaureate", you may take courses applicable to a graduate degree (even if you have not yet been admitted to the degree program) up to a maximum of 13 units, or you may enroll in courses for personal or professional growth.

As an "Unclassified Post-baccalaureate," you are not assured of admission to any master's degree or credential program, and no more than 13 quarter units earned in this status may be applied to a master's degree. In addition, because of heavy enrollment pressure, some departments may restrict registration in some courses for students in this category. For these reasons, if a master's degree is your goal, you should seek admission to your chosen program as soon as possible. Admission as an "Unclassified Post-baccalaureate" student does not constitute admission to, or assurance of consideration for admission to, any graduate degree or credential program.

Classified Post-baccalaureate

When you are admitted to a credential or post-baccalaureate certificate program you are placed in the "Classified Post-baccalaureate" category. In addition to the general requirements outlined above, you are required to satisfy any additional criteria established by your department.

For information on admission to the credential programs in teacher education, administrative services, special education, and pupil personnel services, contact the School of Education. For information on admission to certificate programs, contact the appropriate department.

Conditionally Classified Graduate

If you are admitted conditionally to your master's degree program for one or more of the following reasons, you are placed in the "Conditionally Classified Graduate" category:

1. You must complete specific courses (usually undergraduate).
2. Your program of study and thesis/project committee must be determined and approved.
3. You must pass certain qualifying examinations.
4. Your GPA does not quite meet expected standards, and you must demonstrate your ability to maintain a minimum 3.0 GPA.
5. You have not passed the Writing Skills Test.

Departments have different policies regarding this status as well as differing lengths of time you may be allowed to remain conditionally classified. If you are admitted as a "Conditionally Classified Graduate" student, you should immediately check with your graduate advisor or department chair to determine what you must do to become fully classified.

Classified Graduate

If you are admitted to a specific master's degree program, you are placed in the "Classified Graduate" category. To be admitted as a "Classified Graduate," you must satisfy both the general university admission requirements, all additional criteria established by your department, and pass the Writing Skills Test.

What are the graduate admission requirements for international students?

The CSU must assess the academic preparation of international students. For this purpose, "international students" include those who hold U.S. visas as students, exchange visitors, or in other non-immigrant classifications.

There are separate requirements and application filing dates for the admission of international students. Verification of your English proficiency (see below), financial resources, and academic performance are all important considerations in your admission. Academic records from international institutions must be on file at least eight weeks before registration for the first term. If they are not in English, they must be accompanied by certified English translations.

Application Filing Periods and Deadlines for International Students

The university has established deadlines to insure that all application materials will be processed in time to allow you to make the necessary passport, visa, travel and other arrangements to reach the campus before the start of the quarter of admission. Contact the campus Admissions and Records Information Counter (510/885-2624) for current deadlines

applicable to international student admission.

Each applicant must have a declared educational objective (major) when the application is filed. Applications received that do not indicate a major, or that indicate a major that is not offered at this university, that is impacted, or that is closed, will be returned without action. International students on F-1 student visas may be admitted as "Conditionally Classified Graduate", "Classified Graduate", or "Classified Post-baccalaureate" students. They may not be admitted as "Unclassified Post-baccalaureate" students.

English Proficiency Requirement for Post-baccalaureate and Graduate Applicants

English proficiency is required for all applicants. Proof of English proficiency can be met by submitting:

1. An official TOEFL score report of 550 or above, OR
2. An official transcript showing graduation with a bachelor's degree from a U.S. college or university, or an international college or university where English is the principal language of instruction.

You must hold a degree obtained from a recognized university following completion of at least 16 years of scholastic work. You must also have the equivalent of a 2.50 grade point average, or higher, in your last two years of college-level courses.

Certification of International Students

If you are on a student visa, you are required by the Immigration Service to take a minimum 12 "weighted" quarter units per quarter a graduate student or as a "Classified post-baccalaureate" student. In computing weighted units, graduate units (5000 through 6000 level courses) are given a 1.5 weighted measurement, whether taken alone or in combination with undergraduate units. For example, three undergraduate units ($3 \times 1 = 3$) plus six graduate units ($6 \times 1.5 = 9$), or eight graduate units ($8 \times 1.5 = 12$) would total 12 weighted units, or full time. In addition, 3000- and 4000-level courses may also be weighted if the course has been certified as applicable to the student's program of study by a graduate program advisor. Enrollment in courses through the Office of Extended Education (e.g., Open University) will not count for visa certification purposes.

What are the enrollment requirements for transitory (visiting) students?

Graduate students are eligible for Intrasystem Concurrent Enrollment, Intrasystem Visitor Enrollment, and Cross-Registration with the University of California, Berkeley and selected other East Bay colleges.

Intrasystem Concurrent Enrollment

If you are enrolled at any campus of The California State University, you may apply to attend another campus while concurrently enrolled at your home campus.

Eligibility Requirements: (1) You have completed at least one term at the home campus as a matriculated student, or will be enrolled concurrently in such status, (2) you are, or have been, enrolled in an authorized graduate program at your home campus, and (3) you are in good standing at the last college attended.

Intrasystem Visitor Enrollment

If you are a student of any campus of The California State University, you may apply for admission as a visiting student at another campus for a period of one term.

Eligibility Requirements: (1) You have completed at least one term at the home campus as a matriculated student, (2) you are, or have been, enrolled in an authorized graduate program at the home campus, and (3) you are in good standing at the last college attended.

For additional information on Intrasystem Concurrent Enrollment and Intrasystem Visitor Enrollment, as well as

information on the Cross-registration program with the University of California, Berkeley and selected other East Bay colleges, [see "What Are the Enrollment Requirements for Transitory \(Visiting\) Students"](#) in the Undergraduate Admission chapter.

What are the requirements for a master's degree?

You must complete the five requirements listed below:

1. Fulfill the University Writing Skills Requirement by passing the Writing skills Test;
 2. Be Advanced to Candidacy;
 3. Complete at least **45 quarter units applicable to your degree (48 in Public Administration, 72 in Counseling)**.
 - All units must be earned within the five calendar years immediately preceding the receipt of your degree. (Outdated units may be accepted for one additional year with the approval of your department and the graduate dean. If not completed in the sixth year, currency in the subject matter of the outdated courses must be demonstrated. Courses older than seven years cannot be applied to the degree.)
 - No more than 13 units can have been completed when not in residence in your program (e.g., while at other schools, while an undergraduate with permission to take graduate courses, while pursuing an additional baccalaureate degree in "Unclassified Post-baccalaureate" status, while enrolled in another graduate degree program, or while enrolled in Extension courses - including Open University courses)
 - At least 1/2 of the units in your program must be 6000-level
 - No lower division units can be counted
 - No more than 9 units of thesis and/or project work can be counted
 - No more than 15 units may be in CR/NC courses (16 in Public Administration, 24 in Counseling)
 4. Complete a program of study approved by your department, which must include a thesis, project, or comprehensive examination; and
 5. Earn a 3.0 grade point average in all units counted towards your degree.
-

What is the University Writing Skills requirement (UWSR)?

You must demonstrate writing skills competency by satisfying the University Writing Skills requirement (UWSR). This can be done in one of three ways:

1. By satisfying the UWSR as an undergraduate at Cal State Hayward ([see "What is the University Writing Skills requirement?"](#) in the Baccalaureate Degree Requirements chapter)
2. By having previously satisfied the Graduation Writing Assessment Requirement at another CSU campus. (Cal State Hayward will accept certification of completion if the entire requirement, as specified by that campus, was satisfied.)
3. If you have not satisfied the UWSR before you begin your graduate work by passing the Writing Skills Test, you must take the test during your first quarter after attaining "Conditionally Classified" status. If you do not take the

test when required, you will have a hold placed on your record and may be dropped from your courses.

The University Writing Skills requirement must be satisfied before you can be admitted as a "Classified Graduate" student and, consequently, before you can be Advanced to Candidacy and receive a degree.

As soon as you have been admitted to a graduate program, you will be required to take the Writing Skills Test (WST) if you did not satisfy the UWSR as an undergraduate. Contact Assessment and Testing for information. When you pass the test, you have satisfied the writing skills proficiency requirement for graduation. Over 80% of graduate students pass the WST on their first attempt.

If you do not pass on your first attempt, enroll immediately in English 3000, and take the test again as soon as you have passed the course. Non-native speakers of English are advised to take ENGL 3001 before ENGL 3000. (If your Essay score on the WST is 6 or below, you are required to complete English 3000 before reregistering for the WST.) If you are among the relatively small number who fail a second time, do not be discouraged. You must enroll in English 3000 again or another writing skills course (ENGL 3001, 3003, 3020; E S 3000; GEOG 3450; HIST 6030; HDEV 4820; MKTG 3495; MLL 3119, 3290, 3309, 3587) before you can sign up for the WST again.

A very small number of Cal State Hayward students do not pass the WST after a third try. If you fail the test on your third attempt, but have passed (with a grade of "CR" or of "C-" or better) two writing skills courses (including ENGL 3000 at least once) and earned an Essay score of at least 6 on your last WST attempt, you may petition the Office of Curriculum and Academic Programs for a waiver of the graduation writing proficiency requirement. If you do not qualify for this, you may appeal to the Basic Skills Requirements Appeals Committee for a waiver. If the Office of Curriculum and Academic Programs or the committee grants a waiver, your permanent record will note that you were allowed to graduate without having satisfied the University Writing Skills Requirement. If you do not satisfy the requirement and do not have a waiver approved, you will not be allowed to graduate.

If you have a verified disability which affects your ability to satisfy this requirement, there is a special appeal process facilitated by the Student Resource Disability Center. Contact that office for details.

What is "Candidacy"?

"Candidacy" is a status which recognizes completion of substantial progress towards your degree. You are eligible for Advancement to Candidacy when you:

1. are a "Classified Graduate" student in good standing;
2. have completed at least 12 quarter units of 6000-level coursework with a minimum 3.0 GPA;
3. have designed a formal program of study approved by your graduate advisor;
4. have fulfilled the University Writing Skills Requirement;
5. have completed other department prerequisites for advancement; and
6. are recommended for Advancement to Candidacy by your advisor (subject to approval by your department's graduate coordinator).

What are the characteristics of graduate courses?

You will find that graduate courses involve more complex ideas, materials, techniques and problems than undergraduate courses, and demand in-depth research, analysis and creative thinking.

All graduate studies share the following characteristics:

1. Identification and investigation of theories and principles;
2. Application of theories to new ideas, problems and materials; and
3. Extensive use of bibliographic and other resource materials, with emphasis on primary data sources.

In addition, you can expect each of the following learning formats used in graduate studies to be organized in a similar manner.

Lecture-discussion courses combine lectures with group discussion, and are based on specialized studies and research. These courses consider relevant issues, examine different perspectives, include problem analysis and research, and require a high level of participation on your part. The variety of resources used provide a range and depth beyond that obtainable through a single text. You will be expected to demonstrate your ability to synthesize and analyze material in your written work and in examinations which will go beyond mere recall of factual information.

Seminars are organized around a series of significant, related issues and their focus may vary from quarter to quarter. Occasional lectures are limited to framing and clarifying issues, while the bulk of the course is devoted to the development, presentation, and critical examination of material, ideas, and conclusions by you and other students. Seminars are among the most exciting and stimulating learning formats in graduate studies.

Laboratory coursework focuses on data gathering, analysis and interpretation. Specialized facilities and equipment are used. You are expected to pursue your research with relative independence.

Field work and clinical practice require that you possess a high level of theoretical competence and a mastery of the basic skills necessary to perform professional duties with minimal direction. You will have opportunities to apply your knowledge, exercise independent judgment, and assume responsibility for determining and implementing procedures. You are expected to report your experience in a way that indicates its significance, explains the rationale behind your major decisions, and evaluates its effectiveness.

An **independent study** is jointly designed by you and your professor with a specific objective related to your graduate program. It requires demonstration of competence through scholarly presentation of the results of your work during the course of the study and at its conclusion. Graduate Independent Study (6900) is restricted to students with at least a 3.00 GPA in the field or department in which the Independent Study is to be taken.

What are the different kinds of capstone experiences?

The capstone experience of your graduate program will be the successful completion of a thesis, project, or comprehensive examination. The quality of your work - including quality of expression - is the major consideration in judging the success of this degree component.

Thesis

A thesis is the written product of a systematic study of a significant issue. In the thesis, you are expected to identify the issue, state your major assumptions, explain the significance of your project, detail your sources for and methods of obtaining data, provide analysis of the data, and offer conclusions. Your thesis should demonstrate original critical and independent thinking, appropriate organization and format, and thorough documentation. If your research involves human subjects, your protocols must be approved by the Institutional Review Board (see "Research with Human Subjects" in the [Appendix](#)).

Cal State Hayward offers two kinds of master's degree theses, University Thesis (numbered 6910) and Departmental Thesis (numbered 6909). Most criteria are the same for both.

- You must be a graduate student (i.e., admitted to a master's degree program) to enroll in a thesis course; your department may add additional requirements.

- Your thesis work will be supervised by a departmental committee which must include at least one Cal State Hayward faculty member.
- You may not receive credit for more units of thesis work than allowed by your degree program.
- Each quarter you will receive a grade of "SP" (Satisfactory Progress) for units earned in 6909 or 6910 until you complete your thesis; you then will be given a final grade for the entire course. No "SP" units will be counted towards your degree or in calculating your GPA. If your thesis is not approved within five years of your initial enrollment in a thesis course, the "SP" grade(s) will be changed to "F" or "NC" (depending on the grading pattern of the course).
- Normally you will be required to present an oral defense of your thesis.

There are also a few significant differences between the two kinds of theses.

- You may not earn more than 9 units for University Thesis, while the maximum for Departmental Thesis is 5 units. Several departments have lower unit requirements, so check the program description in this catalog.
- The format of a University Thesis is established by the Office of Curriculum and Academic Programs and the Graduate Dean. Since these works are expected to serve as resources for future research, the format is formal, and the theses are bound and placed in the Cal State Hayward Library. A Departmental Thesis, on the other hand, is usually not as formal. Its standards and format are determined by the department, and the thesis is retained by the department. For details regarding the approval process, format and timeline for a University Thesis, contact the Thesis Office (a unit within the Office of Curriculum and Academic Programs). For information about a Department Thesis, contact your department advisor or graduate coordinator.

Project

A project is a significant piece of non-written work in either a fine or applied art or a professional field. Your project should provide evidence of originality, independent thinking, and appropriate form and organization. You are required to describe your project in a written abstract that addresses the project's significance, objectives, methodology, and conclusions. In some cases, you may be required to present an oral defense.

Specific criteria for a Project (numbered 6899) are the same as those for a Departmental Thesis with a few exceptions.

- An "SP" grade in a project course will become an "F" (no "NC" option) after one year if your project is not completed.
- While your project need not be considered a research resource, it should be of a caliber to constitute a valid terminal activity in a master's degree program, and will be permitted only when a thesis is not appropriate.

If you change from a program requiring a thesis to one requiring a project (or vice versa), you may count a combined maximum of 9 units for 6909, 6910 and 6899 towards your degree.

Comprehensive Examination

A comprehensive examination is intended to assess your mastery of relevant subject matter, your ability to analyze and integrate the knowledge of your field, your skill in critical and independent thinking, and your use of appropriate organization and accurate documentation. A record of your examination - questions and responses - will be retained by your department. Some departments grant unit credit for exam preparation while others do not.

If I choose to write a University Thesis, what are the steps I must follow?

You should consult your graduate advisor for information on your department's guidelines for thesis topics, and for the

procedures to establish a thesis committee. Also, obtain a copy of the University Thesis Writing Guide from Curriculum and Academic Programs (WA 859). This is available at no cost, and contains detailed instructions regarding the structural elements of the thesis, its format, binding information, deadlines, numbers of copies, and other useful information. Once your committee is established and you have selected your topic, enroll in your department's University Thesis (6910) course.

Your next step is to obtain the necessary approvals of your topic and proposed research methodology, and, ultimately, of your thesis itself. These are obtained in the following sequence:

- Approval of your topic by the chair of your University Thesis Committee;
- Approval of your research protocol by the Institutional Review Board (IRB) if your research will involve human subjects, to determine whether subjects will be at risk and to protect their rights and welfare;
- Approval of the preliminary draft of your thesis by the chair of your thesis committee;
- Approval of the draft by the department chair (if this is required by your department).

Once your draft is completed and approved, you will begin preparing your manuscript for binding according to the requirements in the University Thesis Writing Guide. All students must adhere to these standards, so read the guide before beginning this phase of your work. It literally may prevent your thesis from being rejected, at great cost of time and funds.

Your final draft must be submitted to the Thesis Office which will review your thesis format. Once the Thesis Office approves the format, give the original copy of your thesis to your committee chair for final review and signature, and then give copies to the other members of your committee for their signatures. An oral defense is normally required prior to committee approval; check with your department.

Your final step is to provide the appropriate number of copies of your thesis to the Thesis Office for binding and distribution. The cost is available from the Thesis Office.

The coordination of the preceding steps is quite important. The Thesis Office establishes deadlines for the last few steps - which are strictly enforced - to insure that each is completed appropriately without delaying your graduation. Please contact the Thesis Office early in your thesis work to obtain the deadline information.

What are the policies which affect my registration, grades and academic status?

Registration

As a graduate student, you must follow the same registration policies and procedures as undergraduate students. (See the [Registration chapter](#) for details.) You should be aware that registration in 6000-level courses is governed by the following priorities:

1. Students Advanced to Candidacy in the department offering the course;
2. Students Advanced to Candidacy in other departments;
3. "Classified Graduate" students in the department offering the course;
4. "Classified Graduate" students in other departments;
5. "Conditionally Classified" graduate students in the department offering the course;
6. "Conditionally Classified" graduate students in other departments;
7. Undergraduate students majoring in the department offering the course;
8. All other students.

Registration procedures for Thesis or Project courses is slightly different. You must complete a "Special Registration Petition" for each quarter you wish to enroll in one of these courses. Submit it to your department office. From there it will be forwarded to the Records Office. This must be done no later than the last day of the Add period. You are responsible for checking on the progress of this procedure.

Prerequisites: [See "What Information Do I Need to Register For, and Enroll In Classes?"](#) in the Registration chapter.

Grading

It is an integral part of the teaching responsibility of the faculty to provide careful evaluation and timely assignment of an appropriate grade to each enrolled student. There is a presumption that grades assigned are correct. It is the responsibility of anyone appealing an assigned grade to demonstrate otherwise. In the absence of compelling reasons, such as instructor or clerical error, prejudice, or capriciousness, the grade determined by the instructor of record will be considered final. Final course grades must be submitted by the faculty to the Records Office no later than noon of the second academic day after the end of the Final Examination Period.

If you believe that an inappropriate grade has been assigned and you cannot resolve the matter informally with the instructor and department chair, you should present your case to the Presidential appointee to the Fairness Committee, the Assistant Vice President, Instructional Services. The Fairness Committee may authorize a change of grade under certain circumstances (see the [Undergraduate Grading and Academic Standards chapter](#)). If the instructor of record does not assign a grade to an individual student, the appropriate failing grade for nonattendance (U or NC) is automatically recorded by the Records Office. You may petition the Fairness Committee if you believe the instructor should have assigned an academic grade. If the instructor of record is unable to assign course grades, the Fairness Committee is authorized to insure that other qualified faculty do assign grades.

For purposes of correcting an error, an instructor may change a grade with approval of his/her department chair and school dean. No grade may be changed once your graduation has been recorded. The administrative symbol for withdrawal cannot be assigned by a faculty member. [See "What Changes Can I Make in My Enrollment Status"](#) in the Registration chapter for a description of withdrawal policies and procedures.

You will receive a quarterly grade report, usually about two weeks after the end of final examinations. A comprehensive grade summary of all your Cal State Hayward work will be mailed to you each year following Spring quarter.

The grading symbols used for graduate courses are as follows:

<i>Academic Grades</i>	<i>Standard of Work Represented</i>	<i>Grade Points</i>
A	Superior	4.0
A-	Superior	3.7
B+	Adequate	3.3
B	Adequate	3.0
B-	Adequate*	2.7
C+	Substandard	2.3
C	Substandard	2.0
C-	Substandard	1.7
D+	Unacceptable	1.3
D	Unacceptable	1.0
F	Failing	0
CR**	Credit	0
NC**	No Credit	0

*Administrative Grades****

SP	Satisfactory progress	0
I	Incomplete	0
RD	Report delayed	0
W	Withdrawal	0
AU	Audit	0
U****	Unauthorized incomplete	0

* Note that a "B-" grade, though described as "adequate," generates fewer than 3.0 grade points and must be balanced by a grade of "B+" or

higher.

** These grades cannot be selected by students. They are only available in graduate courses offered exclusively on a "Credit/No Credit" basis.

*** For definitions of the following administrative grades, [see "What Are the Administrative Grading Symbols, and What Do They Signify"](#) in the Undergraduate Grading and Academic Standards chapter.

**** This is the only administrative grade used in calculating the GPA. It is equivalent to an "F."

Academic Grades: The typical grading pattern for courses you will take is "A-F;" the use of "+" and "-" is at the discretion of each instructor. Some departments do not allow "C" or "D" grades to be applied towards a master's degree; check with your department about its policy. You may use courses taken on a "CR/NC" basis to meet your degree requirements only if the courses are offered exclusively on that basis. Typically, these courses are restricted to fieldwork and internships, and a "CR" grade indicates that your work is at least of "B-" quality. In no case, however, may more than 15 units of your master's degree work be earned with "CR" grades in the standard 45-unit master's degree program.

Administrative Grades: You may also receive the administrative grades indicated above. It is important that you observe the differences among them. As noted earlier in the section on thesis work, the Satisfactory Progress ("SP") grade is used in courses when assigned work extends beyond one quarter. An "SP" in a thesis course becomes an "F" or an "NC" if the work is not completed in five years; an "SP" grade in any other course becomes an "F" or an "NC" after one year. You may be given an Incomplete (I) grade if you are unable, for unforeseen reasons, to complete the work for a course, and your instructor believes it likely that you will earn credit for the course upon completion of that work. However, you may not receive an "I" when completion of the coursework requires that you retake a major portion of the course when it is next offered. If you receive an "I" and do not complete the work within the following year, the grade will be changed to an "F" or "NC," depending on the grading pattern of the course. (An extension may be granted by the department if military service or serious health or personal problems prevent you from completing the work, or if the professor is away on leave during the quarter of expiration. Such extensions are for one quarter only, up to a maximum of two extensions, and must be approved by the instructor and the department chair. Written notification of the extension must be sent to the Records Office.) The Report Delayed (RD) grade is rarely used, and will be assigned by the Records Office only if grade reports are delayed by circumstances beyond your control, such as the illness of an instructor.

You may drop a course at any time during the first two weeks of instruction. (For Drop procedures, see the Class Schedule.) No mention of a dropped course appears on your permanent record. After the first two weeks of the quarter, deletion of a course is considered a Withdrawal, and a "W" grade will be assigned if the reason for your request to withdraw from the course is due to circumstances beyond your control and you have obtained the appropriate approvals. This grade carries no connotation as to the quality of your work and is not included in GPA calculations. Under extreme circumstances you may decide that you must withdraw from all your courses. If you believe this may be necessary, contact your graduate advisor or department chair as soon as possible for advice on the appropriate procedures to follow. ([See "What Changes Can I Make in My Enrollment Status?"](#) in the Registration chapter and "What Are the Administrative Grading Symbols, and What Do They Signify?" in the Undergraduate Grading and Academic Standards chapter for additional information on withdrawal procedures.)

An Unauthorized Incomplete (U) means that you did not officially withdraw from a course, and you did not complete enough work for the instructor to evaluate your achievement. For purposes of GPA calculations, a "U" is equivalent to an "F" and cannot be removed by completing additional work.

Grade Point Average (GPA): Your grade point average (GPA) is calculated by dividing the total number of units you have attempted (excluding CR/NC courses) into the number of grade points earned. If you repeat a course, your department has the discretion not to include your earlier attempt in your GPA calculation. The approval to not include the earlier attempt in your degree program must be submitted by your department to the Records Office. This may be done at any time while you are in the degree program, but may not be done after you have been awarded your degree.

Final Examinations: You can expect your instructors to provide you with comprehensive course requirement

information for each course at the beginning of the quarter. This will include the work that is expected of you and the basis on which you will be evaluated. Most courses have graded assignments throughout the quarter, and a final examination. The university's policy states that final examinations must be given only at the times published in the Class Schedule. The purpose of this policy is to insure fairness for all students. Exceptions are, therefore, rare and must be approved in writing by the department chair. Contact your department chair or school dean if you believe this policy is not being followed. If you are in a course which has a separate laboratory, activity or discussion section, your instructor is permitted to give a separate final examination - but only for that section - during the last regularly scheduled meeting of the section.

Probation and Disqualification: There are two types of probation and disqualification: 1) academic, and 2) administrative. If you are an "Unclassified Post-baccalaureate" student, not in a master's degree or credential program, you are subject to the same probation and disqualification standards as a senior undergraduate student. (See the [Undergraduate Grading and Academic Standards chapter](#).) If you are a "Classified Graduate" or "Conditionally Classified Graduate" student, the following policies apply:

Academic Probation

You must maintain a 3.00 GPA in your degree coursework to remain in good standing. If your GPA falls below 3.00, you will be placed on Academic Probation. Should this happen, you must consult with your graduate advisor prior to registering for the next quarter. You are also encouraged to take advantage of various university services (such as advising and tutoring) designed to assist you. You may, however, be academically disqualified by the Dean of Graduate Programs if you do not earn a 3.00 GPA during any quarter while on probation, or if, at any time, you do not meet the academic criteria of your department.

Administrative Probation

You may be placed on Administrative Probation if you:

- withdraw or are administratively disenrolled from all courses for two consecutive quarters or any three quarters;
- do not progress towards your degree while enrolled (such as earning a number of "NC" grades);
- do not comply with appropriate academic requirements (such as taking the Writing Skills Test); or
- earn only "U," "F," and/or "NC" grades for two consecutive, or any three quarters.

Administrative Disqualification

You will be administratively disqualified if you:

- do not meet the conditions for removal of your Administrative Probation;
- are placed on Administrative Probation twice for the same reason;
- are placed on Academic Probation while on Administrative Probation; or
- earn only "U," "F," and/or "NC" grades for three consecutive, or any four quarters.

If you are disqualified, either academically or administratively, you may apply for reinstatement to your graduate program. Your application must be approved by your department's graduate studies committee and the department chair. Reinstatement will be approved only if you are able to provide compelling evidence of your ability to complete your degree. Then it will be forwarded for consideration to the Dean of Graduate Programs who has final authority to approve reinstatement. If you are disqualified a second time, reinstatement will normally not be considered.

Resolution of Disputes

If you believe you have received an inappropriate grade or have been treated in an unfair or discriminatory way, [see "What Recourse Do I Have If I Believe I Have Received A Grade That Is Inappropriate?"](#) in the Undergraduate Grading and Academic Standards chapter for the procedures to follow.

What determines my post-baccalaureate classification at Cal State Hayward?

You will be classified a full- or part-time student according to the following criteria:

- If you are a "Graduate" or "Classified Post-baccalaureate" student, your enrollment status is determined in terms of weighted units. Graduate units (5000- and 6000-level courses) are given a 1.5 weighted measurement. For example, 8 graduate units (8 x 1.5) would total 12 weighted units, which is the minimum required for full-time status. You are considered to be a part-time student if you are enrolled for fewer than 12 weighted units. 3000- and 4000-level courses also may be weighted if the course has been certified as applicable to your program of study by your graduate advisor.
- If you are an "Unclassified Post-baccalaureate" student (i.e., not enrolled in a master's degree program), you must be registered for at least 12 unweighted units to be classified as a full-time student.
- If you are receiving financial aid or benefits from other programs (e.g., Veterans Administration or State Department of Vocational Rehabilitation), you may be subject to specific enrollment requirements to maintain your eligibility. You should check directly with the source of your benefits.
- If you are an international student on a non-immigrant visa, the U.S. Immigration and Naturalization Service (INS) requires that you pursue a full-time course of study in a specific program. You are expected to complete 12 weighted units per quarter and 36 per year.

Also [see "Academic Load"](#) in the Registration chapter.

May I receive credit for courses taken elsewhere?

If you have earned credit at another institution which you wish to apply to your graduate program at Cal State Hayward, you may transfer up to 13 quarter units. (However, this number may be reduced if you have other non-residence credit you wish to apply to your degree.) To request transfer credit:

1. you must have taken the course after earning a bachelor's degree;
2. your department must accept the course(s) as relevant to your degree program;
3. the institution at which you took the course must customarily grant the level of credit for the course (graduate or upper division) that you wish to receive for it at Cal State Hayward;
4. you must have taken the course within five calendar years immediately preceding the receipt of your degree.

You also may apply units earned through the CSU International Programs which meet the criteria outlined above. No more than half of the 45 units required for your degree may be earned in this way. If you also apply transfer credits to your degree, the total of the transfer and International Program units may not exceed one-half of those required for your degree. If you complete your capstone experience (thesis, project, or comprehensive examination) while in the International Programs, this must be done under the supervision of at least one Cal State Hayward faculty member.

Also [see "Credit for Non-Collegiate Instruction"](#) in the Registration chapter.

In general, Cal State Hayward does not allow the use of credit-by-examination from challenged courses for master's degree requirements. Exceptions may be established by individual departments, and are governed by the following policies:

- you must pass the exam challenging the course with a grade of "B-" or better;
- no more than 13 units of credit-by-examination may be applied to your degree; and

challenged courses may not be credited to the residency requirement of your degree.

How can I change my educational objective?

If you are a continuing post-baccalaureate student and wish to change your degree objective or credential program, or you wish to change from "Unclassified" status to a graduate degree or credential program, you must complete a "Change of Graduate Objective Application" form and a "Change of Graduate Objective Transmittal" form and submit both forms to Admissions and Records. The forms are available from, and shall be turned in to either the Admissions and Records Information Counter in the Lobby of Warren Hall or the Academic Services Center at the Contra Costa campus.

The Admissions Office will complete the academic certification section of the "Transmittal" form and will forward all documents to your proposed new department which makes the admission decision. Your department will notify you and Admissions of the decision. Changes made after the second week of the quarter will not take effect until the following quarter

How can I pursue an additional master's degree?

If you wish to pursue an additional master's degree, you must meet the following criteria:

1. receive approval from the department offering the degree;
2. receive approval from the Dean of Graduate Programs;
3. fulfill all prerequisites and requirements for the degree; and
4. complete at least 32 units (35 in Public Administration, 59 in Counseling) in your new program. You must complete 45 units (48 in Public Administration, 72 in Counseling) applicable to the additional degree. If your two degrees are in the same field, they must be in different options, and all 45 units must be different.

You may be Advanced to Candidacy for your new degree only after you have been awarded your first degree. You may not receive both degrees at the same Commencement ceremony.

Who can answer my questions?

If you have any questions about your graduate work at Cal State Hayward - information either addressed or not addressed in this section - do not hesitate to consult your advisor, your department's graduate coordinator or chair, the Dean of Graduate Programs, or the Associate Vice President of Curriculum and Academic Programs. See the [Campus Directory](#) in this catalog for more information.

Anthropology [ANTH]

- [M.A. IN ANTHROPOLOGY](#)
- [GRADUATE COURSES](#)

ANTHROPOLOGY

Department of Anthropology
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 4064
Phone: (510) 885-3168

Professors:

Alan J. Almquist (Chair), Peter J. Claus, H. Glynn Custred, Lindy Li Mark, George R. Miller

Graduate Coordinator:

Lindy Li Mark

M.A. IN ANTHROPOLOGY

The university offers the Master of Arts degree in Anthropology. Although there are no separate options in the program, through a judicious utilization of course offerings, a concentration is possible in socio-cultural, archeological, biological, or linguistic anthropology.

Admission to the Program

To be admitted to the program with "Conditionally Classified Graduate" status, the student must: (1) meet all Cal State Hayward requirements for admission to the university as a post-baccalaureate student; (2) have a grade point average of at least 2.50 in his or her last 90 quarter (60 semester) units; (3) file a written application with the department (in addition to the official application filed with the Admissions Office); and (4) submit two letters of recommendation for admission to the program from former professors.

Classification in the Program

"Classified Graduate" status implies that the student has demonstrated adequate preparation to pursue graduate work leading to the M.A. degree in Anthropology. Credit can be granted for necessary courses taken with graduate standing at other institutions; deficiencies, if any, can be corrected while registered as a "Conditionally Classified Graduate" student in the program. It should be noted that not more than 15 units of graduate level course work (6000 series) in Anthropology taken as a "Conditionally Classified Graduate" student will be applicable to M.A. degree requirements. To attain "Classified Graduate" status, either at the time of admission or thereafter, a student must: (1) complete a baccalaureate degree with a major in Anthropology or complete certain basic Anthropology and related courses or their equivalents as determined by the department; (2) complete the upper division course prerequisites for the graduate seminars in the program of study; (3) attain a grade point average of 3.0 or higher in all coursework applicable to the

Anthropology M.A. degree requirements taken after admission to the program; (4) satisfy the University Writing Skills requirement.

Advancement to Candidacy

Advancement to Candidacy implies that the student has demonstrated, through satisfactory completion of a substantial portion of graduate level anthropological coursework and by meeting all other requirements listed below, the capacity to complete satisfactorily the program leading to an M.A. degree in Anthropology. A "Classified Graduate" student will be Advanced to Candidacy when s(he): (1) completes a minimum of 23 quarter units in anthropological coursework applicable to the M.A. degree requirements, including at least 15 units of graduate level (6000 series) coursework; (2) demonstrates a satisfactory reading knowledge of one relevant foreign language, relevancy to be defined by the department primarily in terms of the goals of the student and the utility of the language to a professional career in Anthropology; (3) files with the department (normally upon completion of 23 course units) an approved program of study to include relevant courses satisfactorily completed, those in progress, and those yet to be taken; and (4) is recommended for Advancement to Candidacy by the department.

Maintenance of "Classified Graduate" Standing

To maintain "Classified Graduate" standing a grade point average of 3.0 or higher must be achieved in all courses taken in the approved program of study, whether at Cal State Hayward or at any other college or university. If a "Classified Graduate" student's GPA falls below 3.0, s(he) shall be dropped from candidacy, if previously attained, and placed in "Conditionally Classified Graduate" status until all deficiencies have been remedied and the student is recommended by the department for reinstatement to "Classified Graduate" status (and candidacy when applicable). Failure by a student to return to "Classified Graduate" status following completion of 16 additional quarter units shall result in his or her dismissal from the program.

Requirements for the M.A. in Anthropology (45 units)

I. Eligibility Requirements

- A. Satisfy the University Writing Skills requirement
- B. Be Advanced to Candidacy
- C. Complete 45 quarter units of graduate work of which:
 1. all must be earned within the five years just preceding the completion of the requirements for the degree (outdated credits up to seven-years-old may be acceptable upon approval of the department and the graduate dean after satisfactory completion of a comprehensive examination in Anthropology);
 2. not fewer than 32 must be completed in residence;
 3. not fewer than 26 must be in anthropology courses in the 6000 series;
 4. not more than 4 may be for a Departmental Thesis (ANTH 6909);
 5. not more than 5 may be for a University Thesis (ANTH 6910);
 6. not more than 13 may be taken in "Unclassified Post-baccalaureate" status and/or for extension and/or transfer course credit, as approved by the department.

II. Course Requirements

- A. Required Courses (22-25 units)
 - ANTH 6100 Seminar in Biological Anthropology (5)
 - ANTH 6200 Seminar in Archaeology/Prehistory (5)
 - ANTH 6400 Seminar in Socio-Cultural Anthropology (5)
 - ANTH 6500 Seminar in Linguistic Anthropology (5)
 - ANTH 6909 Departmental Thesis (2-4) or ANTH 6910 University Thesis (3-5)
- B. Elective courses (graduate or upper division) in Anthropology taken as a graduate student (11-16 units)

- C. Elective courses (graduate or upper division) outside of Anthropology in one or more closely related fields, taken as a graduate student (4-12 units)
- D. Pass a comprehensive examination (0 units)
- E. Have a 3.00 or higher GPA in all courses applied to the M.A. degree. See also the "[University Requirements for Graduation](#)" which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog.

Courses Acceptable for the Master's Degree

In addition to graduate level (6000 series) courses, all Anthropology courses in the 3000-4000 series (except ANTH 3000) are acceptable in the master's degree program. Only courses with grades of "A," "B," and "C" are considered applicable to degree requirements. To apply a course to the degree in which a "D" or "F" is received, the student must repeat the course and earn a grade of "C" or higher. However, both the original grade and the repeat grade are utilized in calculating the student's graduate grade point average.

Comprehensive Exam and Thesis

All students must pass a comprehensive examination over the four basic fields of socio-cultural, biological, archeological, and linguistic anthropology. The examination may be taken at any time in a student's career after completion of the core seminars (ANTH 6100, 6200, 6400 and 6500). Normally the exam will be given twice a year, in the Fall quarter and in the Spring quarter. In order to gain experience in the preparation of a professional paper, all students will be required to write a Departmental Thesis (ANTH 6909) or University Thesis (ANTH 6910).

GRADUATE COURSES

6100 Seminar in Biological Anthropology (5)

Critical examination of theoretical developments in paleoanthropology and primatology, with emphasis on evolutionary mechanisms. Prerequisites: graduate standing and permission of instructor. (Sp).

6200 Seminar in Archaeology/Prehistory (5)

Advanced study of methods and theories used in archeological research, combining discussion of current archaeological literature and individual analysis of available archaeological data. Prerequisites: graduate standing and permission of instructor. (W)

6400 Seminar in Socio-Cultural Anthropology (5)

A critical examination of traditional and contemporary theories and methods in socio-cultural anthropology, including trends in the various subfields of the discipline. Emphasis on student participation in criticism and synthesis of significant theoretical positions. Prerequisites: graduate standing and permission of instructor. (F)

6500 Seminar in Linguistic Anthropology (5)

Seminal work within the subdisciplines of anthropological linguistics, including examples of its application. Prerequisites: graduate standing and permission of instructor. (W)

6600 Seminar on Special Topics (4)

A critical examination of special topics of current anthropological interest not covered in other seminars. Content may pertain to any subfield or theoretical position of anthropology. May be repeated once for credit if topic is different. (Sp)

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the M.A. in Anthropology. CR/NC grading only. Prerequisites: at least a 3.0 GPA; departmental approval of activity. (A)

6900 Independent Study (1-4)

Independent study in anthropology with concentration on a specific problem under guidance by a faculty sponsor. Prerequisites: Completion of seminar relevant to the specified problem and consent of instructor. (A)

6909 Departmental Thesis (2-4)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: "Classified Graduate" standing. Maximum of 4 units per student. (A)

6910 University Thesis (1-5)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: "Classified Graduate" standing. Maximum of 5 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)

Biological Sciences [BIOL]

- [M.S. IN BIOLOGICAL SCIENCE](#)
- [CERTIFICATE IN BIOTECHNOLOGY](#)
- [GRADUATE COURSES](#)

BIOLOGICAL SCIENCES

Department of Biological Sciences

School of Science

Office: North Science 429

Phone: (510) 885-3471

Professors:

Robert J. Baalman, Stephen C. Benson, Lynne O. Elkin, George R. Johnston, Christopher L. Kitting, Edward B. Lyke, Samuel M. McGinnis, James W. Nybakken, Richard A. Symmons, Richard E. Tullis (Chair)

Associate Professors:

Christoph W. Baysdorfer, Beverly A. Dixon, Maria C. Nieto, Susan B. Opp

Assistant Professors:

Donald A. Gailey, Michael S. Hedrick

Graduate Coordinator:

Susan B. Opp

M.S. IN BIOLOGICAL SCIENCE

The Master of Science degree in Biological Science offers students the opportunity to obtain advanced academic and research experience in specialized areas of biological science.

Career Opportunities

Biological Science is a fast-changing, exciting field offering students numerous options for rewarding careers and future advancement. Examples of M.S. study areas in the department are environmental biology, general ecology, population biology, marine ecology, insect ecology, plant and animal ecology, physiological biology, cell and molecular biology, plant and animal physiology, microbiology, genetics, and immunology.

Faculty

The Biological Science faculty is comprised of 15 full-time professors at Cal State Hayward and one full-time professor at Moss Landing Marine Laboratories. The faculty are committed to excellence in teaching and research, and many of the faculty have federal, state, and private research grant support.

Related Programs

The Biotechnology Certificate Program within the department is a post-baccalaureate program emphasizing cellular, molecular, and immunological techniques. With careful planning, this certificate may be combined with the M.S. in Biological Science degree. Contact the Biological Sciences Department for application forms and deadlines for this program.

The M.S. degree in Marine Science is offered at Moss Landing Marine Laboratories, located on Monterey Bay, for students from Cal State Hayward and seven other California State University consortium schools. Graduate students from Cal State Hayward may also take such courses at Moss Landing as are appropriate for their degree objectives. Contact the Biological Sciences Department for application forms and deadlines for this program. See [Marine Sciences](#) in the graduate section of this catalog.

Research Facilities

Department facilities for student research and study include invertebrate, vertebrate, and entomology museums; herbarium; greenhouse; insectary, histology, transmission and scanning electron microscope labs; radiation hot lab; microbiology facilities including those for anaerobic culture; cell culture facilities; animal rooms; molecular biology lab; and DNA sequencing facilities. Local field opportunities may be found at a wetlands field station at the San Francisco Bay National Wildlife Refuge, the brackish and salt water marshes of the Hayward Regional Shoreline of San Francisco Bay, and a 35 acre oak-grassland preserve located immediately adjacent to the Hayward campus and contiguous with Garin Regional Park (one of the East Bay Regional Parks).

Research Support

Research space is available to all "Classified Graduate" students, usually in the major advisor's research lab. Limited funds for graduate research supplies are available each year from the department budget. In addition, research assistantships are available for some students through faculty research grants and the Minority Biomedical Research Support Program. Teaching assistantships may become available for a given quarter. Financial aid within the department is limited. Contact the Financial Aids Office regarding other assistance from the University Work-Study Program, loans, scholarships, etc.

Admission Requirements

1. The M.S. degree program in the Department of Biological Sciences is open to graduates of accredited institutions who have a baccalaureate degree in any field of the biological sciences and who have achieved a GPA of at least 2.75 in all undergraduate work and an average of 3.00 in all biological science courses taken as an upper division student. Normally, all applicants should have completed undergraduate courses equivalent to those required of all biological science majors at Cal State Hayward.
2. In addition to filing the university application and fee, students must make application to the Department of Biological Sciences for admission to graduate standing in the M.S. degree program. Application forms are available through the department office. Students are encouraged to obtain information about research interests of the faculty and to contact faculty members who could potentially serve as thesis advisors. In addition to the above GPA requirements, the department requires that the following be sent directly to the Department of Biological Sciences:
 - departmental application
 - GRE scores of the: (a) General Test, and (b) either the Biology or Biochemistry Cell and Molecular Biology subject test
 - three letters of reference

Applicants must have taken basic courses in biological and physical sciences and mathematics/statistics; areas omitted, if any, will be treated as course deficiencies and must be completed by the time of classification (see below). No action will be taken by the department until the application file is complete; this is the applicant's responsibility. Students with less than the minimum GPA (see above), with other undergraduate majors, or with course deficiencies may request special consideration from the departmental Graduate Committee.

3. All students admitted to the program will be admitted as "Conditionally Classified Graduate" students.

4. At the time of admission the student will be assigned an interim advisor who will aid the student during the first portion of his or her residence in the program.
5. Those students applying for admission to the program with the intent of obtaining a M.S. degree in Marine Sciences from work done at Moss Landing Marine Laboratories must gain admission into "Conditionally Classified Graduate" status as stated above. However, the classification procedures as stated below WILL NOT apply for these students; instead, once admitted to the program as "Conditionally Classified Graduate" students, they will follow MLML's classification procedures (see [Marine Science](#) chapter in the graduate section of this catalog).
6. Any student not admitted to the program because of incomplete applications, deficiencies, or failure to meet time deadlines is urged to enroll in the university as an "Unclassified Post-baccalaureate" student pending completion and consideration of the application for classification.
7. No more than 13 quarter units of courses applicable toward the master's degree completed before admission to the program may be counted toward the degree.

Note: Although not an admission requirement, the Writing Skills Test (WST) must be taken during the first quarter of admission to the program and must be passed to become a fully "Classified Graduate" student.

Degree Requirements

A "Conditionally Classified Graduate" student must become a fully "Classified Graduate" student in the program as set forth in 1, 2, 3, and 4 below and within the specified time limits or the "Conditional Classification" will expire and the student will be placed in "Unclassified Post-baccalaureate" status.

1. *Establish a graduate advisory committee by the end of the second quarter after admission to the program.* Two faculty members from the Department of Biological Sciences will serve as members of the committee. One faculty member from the department will normally be the major advisor in guiding the student in graduate training. One to two other members of the committee will be chosen in consultation with the major advisor. The committee will advise on and approve the student's final program including any work and research units counted toward the degree. This advisory committee will also administer the oral examination at the completion of the thesis.
2. *Complete basic course deficiencies.* If the student lacks basic courses in biological or physical sciences, or mathematics/statistics, these courses must be completed by the end of the fourth quarter following admission to the program. In addition, the student's advisory committee may also determine that there are other course deficiencies to be completed.
3. *Research proposal.* Students wishing to be a fully "Classified Graduate" must submit a formal research proposal to the departmental Graduate Committee for either Plan A or Plan B. It must be approved by the student's advisory committee (item 1 above). If the work is to be done in an off-campus location, a letter of agreement must be included that indicates a mutual understanding and responsibility between the off-campus supervisor, Cal State Hayward, and the student. The department office or Graduate Coordinator has examples of these proposals and their format.
4. *University Writing Skills Requirement.* The Writing Skills Graduation Test must be passed. (See [Graduate and Post-baccalaureate Studies](#) chapter at the beginning of the graduate section of this catalog.)

It is the responsibility of the student to establish a graduate advisory committee, take the qualifying examination, and complete course deficiencies within the time limits stated above.

Advanced to Candidacy

The student must have:

1. attained "Classified Graduate" standing
2. completed at least 12 quarter units of satisfactory work beyond the baccalaureate degree suitable for inclusion in an M.S. program in Biological Science as approved by the student's graduate advisory committee. At least 3 quarter units of graduate level coursework in residence at Cal State Hayward must be included. (Satisfactory

work in a graduate program is that showing a GPA of 3.00 in all courses; no grade below "C" may be counted in this program.)

3. received from his or her advisory committee approval of either a Plan A or Plan B individual research program.

Curricular Requirements

The M.S. programs in biological science provide for the degree to be obtained under either Plan A (University Thesis) or Plan B (Departmental Thesis).

Plan A, University Thesis (45 units)

A total of 45 quarter units is required beyond the baccalaureate with a GPA of 3.0 or above and no grade lower than "C" in courses included in the program, and with specific requirements as follows:

1. University Thesis (9 units)
Complete copies of the University Thesis must be submitted, in accordance with the rules set forth by the Office of the Associate Vice President, Curriculum and Academic Programs and the Dean of Graduate Programs, to the chair of the candidate's advisory committee by the sixth week of the quarter at the end of which the degree is desired.
2. Graduate courses (14-36 units) in area of special concentration option or in areas related to it as approved by the student's advisory committee; included must be at least one graduate seminar in the area of special concentration. (May include a maximum of 4 units of Independent Study (BIOL 6900); in certain circumstances exceptions may be granted by the departmental Graduate Committee.)
3. Upper division courses (0-22 units) taken as a graduate student and approved by the advisory committee as appropriate to the student's objective.
4. An oral examination administered by the advisory committee covering the candidate's area of specialization and thesis research. This examination will be publicized and open to all faculty.

Plan B, Departmental Thesis (45 units)

A total of 45 units is required beyond the baccalaureate with a GPA of 3.0 or above and no grade lower than "C" in courses included in the program, and with specific requirements as follows:

1. A review paper satisfactory to the advisory committee based on intensive study and analysis of the scientific literature on a topic approved by the major professor, with or without supplementary field or laboratory work. Not more than 4 units of Departmental Thesis (BIOL 6909) for preparation of the paper may be included in the program approved by the advisory committee for the degree. (4) (The final copy of the paper must be circulated among the members of the advisory committee at least two weeks prior to the oral examination.)
2. Graduate courses in area of special concentration or in areas related to it as approved by the student's advisory committee; included must be at least one graduate seminar in the area of the concentration. (19-41)
3. Upper division courses taken as a graduate student and approved by the advisory committee as appropriate to the student's objective. (0-22)
4. An oral examination administered by the advisory committee covering the candidate's area of the option and review paper. This examination will be publicized and open to all faculty.

Note: The following standards will apply to BIOL 6909 for use as a Plan B requirement:

Format: Typewritten and referenced in appropriate scientific fashion; a title page with the student's advisory committee's signatures must be included; specific format used is up to the discretion of the major advisor.

Binding: Bound in fiberboard or other satisfactory binders for permanent storage.

Records: The department will retain a copy of the Departmental Thesis in its files.

Technical: Typed on 16-pound white paper and with general "thesis" quality, i.e., no strike-overs, etc. Sufficient left-hand margins (1 1/2") should be left for binding.

Approval: Form and style -- department; content -- advisory committee

Granting the Degree

Upon successful completion of the above requirements for the degree under Plan A (including completion of the University Thesis) or under Plan B (including completion of the Departmental Thesis), the department will recommend that the candidate be granted the degree.

Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

CERTIFICATE IN BIOTECHNOLOGY

This certificate program consists of 28 units and is designed to give recognition to students who complete a post-baccalaureate curriculum emphasizing cellular, molecular, and immunological techniques. This is an appropriate capstone for biology or chemistry graduates and is preparatory for careers in industrial biological research, development, and production. The Biotechnology Certificate Program requires 28 units of advanced work, including seven required courses and four elective units selected from chemistry and biology offerings. The laboratory courses, important to this program, emphasize a "hands on" approach with close faculty supervision. In addition to experimental techniques, safety standards and quality control are also stressed. Courses are scheduled in a non-conflicting pattern so that a full-time student entering this program can complete the requirements in one academic year. There are over 114 biotechnology companies in the Bay Area with a growing demand for employees skilled in the technical subjects herein outlined. Seven faculty members from the Departments of Biological Sciences and Chemistry share the responsibility for this program and play an active role in arranging employment interviews for students who successfully complete this certificate program.

Admission to the Program

The Certificate Program in Biotechnology is open to graduates of accredited institutions who have a baccalaureate degree major in any field of biological sciences or chemistry and who have achieved a GPA of at least 2.75 in the major and at least 3.0 in the prerequisite courses. Applicants failing to meet these criteria may petition the Biotechnology Committee for a waiver of these requirements.

Prerequisite: Baccalaureate degree and course equivalents listed below. (Courses in this program are open to qualified seniors majoring in biology or chemistry.)

Applicants to this program will be selected by the Biotechnology Committee of the Department of Biological Sciences. All applicants to the certificate program must have a baccalaureate degree major in biology or chemistry, and have completed the following courses or their equivalents:

Microbiology (BIOL 3405) or course including laboratory work emphasizing microbiological techniques

Biochemistry (CHEM 4411 and 4412)

Immunology (BIOL 4430) (Taken within last 3 years.)

Genetics (BIOL 3120) (Taken within last 3 years.)

Course with emphasis on eucaryotic cell biology, e.g., development (BIOL 3140) or cell physiology (BIOL 3150)

or 4170). (Taken within last 3 years.)

Applicants must submit GRE score for Biochemistry, Cell, and Molecular Biology subject tests.

Students contemplating enrollment in a master's degree program should be aware that only 13 units earned prior to admission may be applied to a graduate degree.

Continued participation in the program

Students must maintain a 3.0 GPA in the program for continued participation and pass a comprehensive examination at the completion of the program.

Curricular Requirements

I. Required Courses (24 units)

BIOL 4450 Cell Culture Techniques (4)

BIOL 4480 DNA Sequencing (2)

BIOL 6140 Recombinant DNA Techniques (4)

BIOL 6146 PCR Techniques (2)

BIOL 6151, 6152 Cell and Molecular Biology (4, 4)

CHEM 6430 Protein Chemistry Techniques (4)

II. Electives (4 units)

A minimum of four units should be selected with the approval of an advisor to meet individual objectives from the courses listed below:

BIOL 4120 Radiation Biology (4), 4420 Genetics Laboratory (4), 4431 Immunology Lab (2), 4460 Plant Cell and Tissue Culture (4), 4470 Physiology and Molecular Plant Biology (4), 6610-11 Transmission Electron Microscopy (5) or 6613 Scanning Electron Microscopy (3); CHEM 4240 Instrumental Methods of Analysis (4)

GRADUATE COURSES

Biology Courses

6102 Selected Topics in Cell Molecular Biology (3)

Current topics and research in cell and molecular biology which may include human genetics, human genome project, forensic studies, molecular evolution, molecular anthropology, and biotechnology. Topics will vary each quarter.

Prerequisites: consent of instructor or graduate standing. May be repeated once for additional credit

6112 Selected Topics in Environmental Biology (3)

Current topics and research in environmental biology including population ecology, animal and plant ecology, botany, zoology, etc. Topics will vary each offering. Prerequisite: graduate standing or consent of instructor. May be repeated once for additional credit.

6120 Environmental Experimental Analysis (4)

Advanced applications of graphic modeling, experimental design, direct and remote monitoring, and modern statistical analyses of ecological/physiological experiments. Prerequisites: graduate standing in biology or consent of instructor.

Two hrs. lect., 1 hr. disc., 3 hrs. lab/field.

6140 Recombinant DNA Techniques (4)

Recombinant DNA methodology and its analytical and industrial applications. Laboratory studies include nucleic acid isolation, vector characterization, restriction endonuclease reactions, recombinant DNA construction, transformation,

and "blotting" procedures. Prerequisites: BIOL 3405 or equivalent, biochemistry, and permission of instructor. Cross-listed with [CHEM 6140](#) Two hrs. lect., 6 hrs. lab.

6146 PCR Technology (2)

Laboratory course covering theory and applications of the polymerase chain reaction (PCR). Introductory experiments examining the role of PCR reagents and the variability of reaction parameters, including computer assisted primer design. Advanced experiments investigating the utility of PCR in such applications as nucleic acid probe synthesis, amplification of cloned and genomic DNA, library screening, RAPD analysis, RNA PCR, and forensics. Prerequisites: BIOL 6140, 6151, and consent of instructor. Six hours lab.

6151-2 Cell and Molecular Biology I, II (4, 4)

The cellular and molecular biology of eucaryote cells emphasizing membrane structure and function, structure of genetic material, control of gene expression, and protein synthesis, cell division and differentiation. Prerequisites: Graduate standing, BIOL 4170 or equivalent, and one quarter of biochemistry. Two hrs. lect., 6 hrs. lab. (F,W)

6160 Community and Ecosystem Ecology (4)

Structure, dynamics and distributional aspects of ecological communities and energy flow relations in whole ecosystems. Lectures and intensive field work in selected communities, with emphasis on those of central California. Prerequisite: BIOL 3110 or equivalent. Recommended: advanced taxonomic courses in zoology. Two hrs. lect., 6 hrs. field (or lab).

6170 Population Ecology (4)

Factors affecting reproduction, age composition, turnover, density and dispersion, and their fluctuations in time among populations of animals and plants, with brief comparisons from studies of plants. Prerequisite: BIOL 3110 or equivalent. Genetics, statistics and advanced zoology and/or botany courses recommended. Three hrs. lect., 3 hrs. lab. and/or field trips.

6180 Estuarine Wetlands Ecology (4)

Advanced applications of modern ecological research in bay shore environments. Emphasis on field experimentation along vertical and horizontal estuarine gradients of both physical and biotic factors, particularly salinity, desiccation, predation, and competition for various resources. Prerequisites: BIOL 3110 or equivalent, graduate standing or consent of instructor. Two hrs. lect., 6 hrs. lab/field.

6510 Physiological Animal Ecology (4)

The adaptation of an organism to its environment: osmoregulation, and water balance, oxygen intake in different habitats, metabolism and the environment, environmental adaptation of various sense organs, special sensory modalities, cyclic reproductive physiology and its adaptive significance, physiological stress and its role in population control, and thermal physiology and ecology. Prerequisites: BIOL 3110 and 3150, 3580, 4570, 4575, 4580, 4585. Two hrs. lect., 6 hrs. lab., field trips.

6520 Mammalian Physiology Laboratory (3)

Advanced treatment of regulatory mechanisms in mammalian organ systems. Laboratory techniques of anesthesia, surgery, instrumentation and data analysis. Emphasis on cardiovascular, respiratory, renal and gastrointestinal physiology. Terminal project required. Not open to students with credit for BIOL 4520. Prerequisites: BIOL 3150 or equivalent. One hr. lect., 6 hrs. lab.

6530 Ecological Methods (4)

Methods of design and analysis of ecological studies, including sampling techniques, field and laboratory measurements, and computer-aided data analysis including introductory modeling. Required ecological field project, designed, implemented and analyzed by student. Prerequisites: BIOL 1301-2-3 or equivalent, BIOL 3110, and graduate standing. Recommended: statistics course. Three hrs. lect., 3 hrs. lab/field.

6610 Transmission Electron Microscopy (2)

Theoretical principles of tissue preparation and function of electron lenses. Special techniques such as negative

staining, freeze fracture, cryomicrotomy, autoradiography and immunochemistry will be discussed. Techniques of quantitative data analysis and experimental design. Prerequisite: graduate standing or permission of instructor. (Alt. Y)

6611 Transmission Electron Microscopy Laboratory (2)

Applied techniques of transmission electron microscopy. Students will learn to operate the electron microscope and perform research on biological structures. Prerequisites: BIOL 6610 and permission of instructor. A miscellaneous course fee will be charged for materials. Please consult the quarterly *Class Schedule* for the current fee. Six hrs lab. (Alt. Y)

6613 Scanning Electron Microscopy (3)

Theoretical and practical applications of scanning electron microscopy emphasizing techniques used in biology and geology. Use of energy-loss spectroscopy, back scattering, secondary electrons, and aujer electrons. Prerequisite: permission of instructor. A miscellaneous course fee will be charged for materials. Fee. Two hrs. lect./demonstration, 3 hrs. lab.

6801 Graduate Seminar--Ecology (3)

A seminar in ecology, with a different theme or subject area to be chosen each year. Course based on papers presented by students enrolled. May be repeated once for credit. Prerequisite: graduate standing in biology or consent of instructor. (Y)

6811 Graduate Seminar--Physiology (3)

A seminar course dependent upon papers presented by students enrolled. The specific subject area of physiology will be chosen each year. Prerequisite: graduate standing in biology or consent of instructor. May be repeated once for additional credit. (Y)

6821 Graduate Seminar in Cell and Molecular Biology (3)

A seminar course involving presentation and discussion of current research literature in cell and molecular biology. The specific subject matter will be at the discretion of the instructor. Prerequisite: graduate standing in biology or consent of instructor. May be repeated once for additional credit. (Y).

6851 Graduate Seminar -- Zoology (3)

A seminar in zoology, with a different theme or subject area chosen each year. Course based on papers presented by the students enrolled. May be repeated once for credit. Prerequisite: graduate standing in biology or consent of instructor. (Y)

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units, 4 units of which are applicable to a biology graduate degree. Prerequisites: at least 3.0 GPA; departmental approval of activity. (A)

6900 Independent Study (1-4)

6909 Departmental Thesis (1-4)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. CR/NC grading only. Prerequisite: graduate standing.

6910 University Thesis (1-9)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. CR/NC grading only. Prerequisite: graduate standing. Maximum of 9 units per student. (See also "University Thesis Writing Guide," available in WA 859.)

Marine Science Courses

See the [Marine Sciences](#) chapter for descriptions of the following courses.

*Offered at the Moss Landing Marine Laboratories**

- 6202 Marine Instrumental Analysis (6)
- 6204 Sampling and Experimental Design (6)
- 6211 Behavior of Marine Animals (6)
- 6212 Advanced Topics in Marine Vertebrates (1.5-6)
- 6221 Advanced Topics in Marine Invertebrates (1.5-6)
- 6222 Biology of the Mollusca (6)
- 6231 Biology of Seaweeds (6)
- 6233 Advanced Topics in Marine Ecology (1.5-6)
- 6234 Advanced Biological Oceanography (6)
- 6271 Population Biology (4.5)
- 6272 Subtidal Ecology (6)
- 6274 Advanced Topics in Oceanography (1.5-6)
- 6280 Scientific Writing (4)
- 6285 Graduate Seminar in Marine Biology (3)
- 6900 Independent Study (1.5-6)
- 6910 University Thesis (1.5-6)

* Courses listed under Marine Sciences at Moss Landing Marine Laboratories are offered on a semester basis in the Fall and Spring. Semester units have been converted to quarter units.

Kinesiology [PE]

- [M.S. IN KINESIOLOGY](#)
- [CREDENTIAL PROGRAM](#)
- [POST-BACCALAUREATE COURSES](#)
- [GRADUATE COURSES](#)

KINESIOLOGY

Department of Kinesiology and Physical Education

School of Education

Office: Physical Education Bldg. 130

Phone: (510) 885-3061

Professors:

Cynthia Berrol, Calvin S. Caplan, Stanley J. Clark, Herbert M. Graw, Don R. Hudson, Dorie Krepton, John Z. Ostarello, Jr., Richard S. Rivenes (Chair), Timothy Tierney, F. Douglas Weiss, Robert W. Zambetti

Associate Professor:

Arlene H. Smith

Assistant Professor:

Catherine Inouye

Lecturers:

Sheri Colberg, Donald T. Sawyer

Graduate Coordinator:

Calvin Caplan

M.S. IN KINESIOLOGY

Program Description

The Department of Kinesiology and Physical Education offers programs in sport and exercise phenomena. The purpose of the Master of Science degree program is to give students a broad knowledge of Kinesiology and the profession of Physical Education and to develop their scholarly skills. The program serves as a terminal degree for professionals as well as preparation for those intending to complete a doctorate. To meet the needs and interests of students, the course of study leading to the Master of Science degree has four options. The high standards and academic rigor required of students pursuing these options is characteristic of an excellent graduate-level education. Because most students are working professionals, graduate courses are offered primarily during the evening hours.

Career Opportunities

Athletic Director ■ Athletic Trainer ■ Cardiopulmonary Rehabilitation Specialist ■ Community College Teacher ■ Corporate Fitness Director ■ Intercollegiate and Interscholastic Coach ■ Exercise Psychologist ■ Personal Trainer ■ Physical Education Administrator ■ Physical Education Teacher ■ Physical Therapist ■ University Instructor ■ Wellness

Faculty: Areas of Specialization

Cynthia F. Berrol, Ph.D., University of California, Berkeley: Special (adapted) physical education, motor development.

Calvin S. Caplan, Ed.D., University of California, Berkeley: Exercise physiology, sports medicine.

Stanley J. Clark, Ed.D., Stanford University: Sport history.

Sheri Colberg, Ph.D., University of California, Berkeley: Exercise physiology, sports medicine, research methods.

Herbert M. Graw, Ed.D., University of California, Berkeley: Skill acquisition, research methods.

Don R. Hudson, Ed.D., University of Utah: International sport programs, curriculum, philosophy.

Catherine Inouye, Ed.D., University of Northern Colorado: Exercise physiology, exercise nutrition.

John Z. Ostarello, Ed.D., University of California, Berkeley: Biomechanics, research methods.

Richard S. Rivenes, Ph.D., Pennsylvania State University: Sport sociology, research methods.

Donald T. Sawyer, Ed.D., University of San Francisco: Skill acquisition, motor control, sport psychology.

Douglas Weiss, M.S., University of California, Berkeley: Sport administration.

Option Areas

The M.S. degree has four options:

1. **Sports Humanities:** Study of the historical, social, cultural and philosophic aspects of sport and exercise.
2. **Exercise Physiology:** Study of the response of physiological systems to exercise and the limitations of these systems to perform work.
3. **Skill Acquisition -- Sport Psychology:** Study of the nature of sensorimotor skill acquisition and performance and the influence of psychological variables.
4. **Professional Perspectives:** Study of kinesiological phenomena related to the development of curriculum, programs and facilities for physical education and athletics.

Features

The department offers a complete range of laboratory facilities and technologies for graduate students. These resources enable comprehensive research opportunities in all option areas. Biomechanical digitizing, gas analysis, biofeedback, coincidence timing, nutritional analysis, and computer statistical packages are examples of available tools.

Other features include the potential for individualized programs of study to meet specific interests and needs, extensive library resources, and a seminar instructional format which stimulates high interaction among students and promotes independent scholarship.

Admission to the program in "Classified Graduate" status

Eligibility for admission to the M.S. degree program in "Classified Graduate" status requires a student to have a

baccalaureate degree with a major approximately equivalent to the Hayward B.S. degree major in Kinesiology. The graduate coordinator or department chair will determine degree equivalencies. Students must also have attained at least a 3.00 grade point average in the major and have satisfied the University Writing Skills requirement.

The department encourages students to meet university prescribed deadlines for admission into the program beginning in the Fall quarter, although the department is willing to accept graduate students into the program during the Winter and Spring quarters.

"Conditionally Classified Graduate" Status

Students who are judged to be admissible, but who do not meet all of the admission requirements specified above for "Classified Graduate" status, receive "Conditionally Classified Graduate" standing. Such students may need to complete certain undergraduate prerequisites in preparation for graduate study and/or may have other deficiencies, such as the University Writing Skills requirement, that must be removed within a reasonable period of time. Each student will be judged on an individual basis. The department may require the Graduate Level Examination (GRE), Aptitude Test Score, three letters of recommendation from former professors, and/or the repeat of undergraduate coursework in the case of below-standard grade point averages.

Generally, courses taken to remove deficiencies will not count for credit in the M.S. program. In no case will more than 13 quarter units taken in "Unclassified Post-baccalaureate" standing or at another university, be counted toward the M.S. degree.

"Unclassified Post-baccalaureate" Status

A student who does not meet the admission criteria for the program may seek admission to the university in "Unclassified Post-baccalaureate" status. No more than 13 units earned in this status may be applied to degree requirements.

Advancement to Candidacy

"Classified Graduate" students are eligible for Advancement to Candidacy based on the criteria given below.

1. Maintain a 3.0 grade point average in all graduate work completed.
2. Complete P E 6000 in the first two quarters in the program.
3. Declare in writing to the graduate coordinator the choice of Sport Humanities, Exercise Physiology, Skill Acquisition-Sport Psychology, or Professional Perspectives as an option. This declaration must be made before more than 18 units of graduate study have been completed.
4. Submit to the graduate coordinator an approved program of study developed in conjunction with the appropriate faculty committee.

Prerequisite Courses

The following prerequisite courses or their equivalents must be completed by students who have a degree in another field. These courses are not included in the 45 units required for the M.S. degree.

- A. P E 3300 Kinesiological Measurement (5)
(Applied statistics background is acceptable equivalent.)
- B. P E 3305 Structural Kinesiology (5)
(Functional anatomy background is acceptable equivalent.)
- C. Two courses (10 units) completed from:

- P E 3310 Biomechanics (5)
- P E 3320 Exercise Physiology (5)
- P E 3330 Sensorimotor Skill (5)

- D. Two courses (8 units) completed from:
- P E 3700 History of Sport and Physical Education (4)
 - P E 3740 Philosophic Foundations of Sport and Physical Education (4)
 - P E 3750 Sport in Contemporary Society (4)

Waiver of one or more of these area requirements will be considered if comparable coursework has been completed, or if the student has strong compensating academic strengths in areas related to the graduate program (a degree in Physical Therapy, for example). All requests for such waivers and their justification must be submitted in writing to the graduate coordinator.

Degree Requirements

The Master of Science degree will be awarded when the general requirements listed below have been successfully completed.

1. Completion of a minimum of 45 quarter units of approved upper division and graduate courses
2. A minimum grade point average of 3.0
3. Completion of breadth-requirements listed below
4. Completion of an option
5. Completion of one Capstone Experience:
 - a. University Thesis
 - b. Department Thesis
 - c. Comprehensive Examination
6. In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section in this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 grade point average, and the University Writing Skills requirement.

Curriculum Requirements (45 units)

- I. **Required Course (4 units)**
 - P E 6000 Foundations of Graduate Research (4)
- II. **Breadth Requirements (12 units)**

A minimum of one seminar (four units) from each of the three option areas outside the selected option. See the next section for a description of the options.
- III. **Options (Minimum 17 units)**

(If a student wishes to have an additional option recorded, that option must contain three unique seminar courses not used for any other option and totaling a minimum of 12 units.)

 - A. *Sports Humanities Option*
 - P E 6430 Seminar in the History of Sport (4)
 - P E 6440 Seminar in Sport in Contemporary Society (4)
 - P E 6460 Seminar in Philosophy of Sport (4)
 - P E 6600 Seminar in International Sports Programs (4)
 - P E 6900* Independent Study (1-4)Additional courses may be selected in consultation with an option advisor.

B. *Exercise Physiology*

P E 6420 Seminar in Exercise Physiology (4)

P E 6470 Seminar in Exercise Nutrition (4)

P E 6650 Seminar in Sport Medicine (4)

P E 6850* Supervised Research (2-4)

P E 6900* Independent Study (1-4)

Additional courses may be selected in consultation with an option advisor.

C. *Skill Acquisition -- Sport Psychology*

P E 6400 Seminar in Biomechanics (4)

P E 6410 Seminar in Sport Psychology (4)

P E 6415 Seminar in Motor Control (4)

P E 6850* Supervised Research (2-4)

P E 6900* Independent Study (1-4)

Additional courses may be selected in consultation with an option advisor.

D. *Professional Perspectives*

PE 6610 Seminar in Physical Education Programs and Facilities (4)

PE 6620 Seminar in Athletic and Sport Management (4)

PE 6450 Seminar in Motor Development (4)

PE 6850* Supervised Research (2-4)

PE 6900* Independent Study (1-4)

Additional courses may be selected in consultation with an option advisor.

IV. **Electives (3-12 units)**

Selection of appropriate courses in consultation with option advisor.

V. **Capstone Experience (0-9 units)**

1. P E 6909 Department Thesis (2-5)

2. P E 6910 University Thesis (6-9)

3. Comprehensive Examination (no unit credit) in the student's option.

CREDENTIAL PROGRAM

Adapted Physical Education Specialist

Check with the department about the status of this program.

Required:

A. Possession or concurrent completion of a Single Subject Credential in Physical Education

B. Completion of the following 20-21 unit course sequence with a minimum GPA of 2.00: EPSY 6500 (4) or EPSY 6501; P E 4605 (4), 5600 (5), and 5610 (4), and one course from DANC 3235 (4), P E 4340 (4) or P E 5210 (4)

POST-BACCALAUREATE COURSES

Consult an advisor to determine if these courses can be applied to the M.S. degree.

5000 Sports Officiating (3)

Theory and practical experience in officiating men's and women's sports and games. Coeducational. Sports to be covered rotate quarterly. May be taken three times for credit with different context. Two hrs. lect., 2 hrs. act. (A)

5200 Methods in Physical Education (3)

Course designed for individuals pursuing Single Subject Credential in Physical Education. Topics include: teaching responsibilities; law and liabilities; lesson-unit planning, class organization; behavioral domains; teaching styles; discipline, assessment, evaluation; and study of the California Physical Education Framework. Field trips to schools scheduled. (Sp)

5210 Elementary School Physical Education (4)

The elementary school physical education program. Games, sports, fundamental rhythms and dances, and other activities commonly taught on the elementary level. (W)

5600 Special Populations: Program Development (5)

Critical examination and use of psychomotor assessment tools. Assessment of individual needs and development of appropriate psychomotor programs as determined by physical, cognitive and social levels of function. Fieldwork required. Prerequisite: P E/REC 4605 or consent of instructor. Cross-listed with [REC 5600](#). Three hrs. lect., 4 hrs. act. and fieldwork. (W)

5610 Special Populations: Practicum (4)

Theory, discussion and practice in psychomotor programs for special populations. Assessment, planning and implementation of activity programs. Prerequisite: P E 5600/REC 5600 or consent of instructor. Cross-listed with [REC 5610](#). (Sp)

5900 Independent Study (1-4)

GRADUATE COURSES

6000 Foundations of Graduate Study and Research (4)

Analysis of physical education and kinesiological variables. Scientific thought and inquiry. Application of research methods to specific problems. CR/NC grading only. Prerequisite: P E 3300 or equivalent. (F, Sp)

6099 Multimedia/Hypermedia (4)

(See [TED 6099](#) for course description.)

6400 Seminar in Biomechanics (4)

Critical review of research related to the biological and mechanical analysis of human movement. May be repeated once for credit with consent of instructor. Prerequisite: P E 3310 or equivalent. (Tent. W)

6410 Seminar in Sport Psychology (4)

Kinesiological analysis of psychological variables related to peak performance in sport and exercise. Topics to include personality, motivation, stress, physical-emotional arousal, aggression-violence and self-regulation activities and their influence upon performance. Seminar may be repeated once for credit with consent of instructor. Prerequisite: P E 3330 or equivalent. (A)

6415 Seminar in Motor Control (4)

Kinesiological analysis of sensory-motor control and integration in skill acquisition and performance. Emphasis on empirical evidence and underlying theories related to sport and exercise. Seminar may be repeated once for credit with consent of instructor. Prerequisite: P E 3330 or equivalent. (A)

6420 Seminar in Exercise Physiology (4)

Analysis of immediate and long-range adaptations of human biological systems to exercise and related

environmental stresses. Seminar may be repeated once for credit with consent of instructor. Prerequisite: P E 3320 or equivalent. (W)

6430 Seminar in the History of Sport (4)

Critical analysis of the interrelationships of sport, agonistic practices and culture. Seminar may be repeated once for credit with consent of instructor. Prerequisite: Graduate status, P E 3700 or equivalent recommended. (F)

6440 Seminar in Sport in Contemporary Society (4)

Discussion and analysis of literature, research and issues pertaining to the role of play, games, and sport in contemporary society. May be repeated once for credit with consent of instructor. Prerequisite: P E 3750 or equivalent. (A)

6450 Seminar in Motor Development (4)

Advanced study and review of the research literature pertaining to neuromotor and physical development from birth through adulthood. May be repeated once for credit with consent of instructor. Prerequisite: P E 4340 or equivalent. (F)

6460 Seminar in Philosophy of Sport (4)

Analysis of philosophic issues in competitive and aesthetic movement forms. May be repeated once for credit with consent of instructor. (F)

6470 Seminar in Exercise and Nutrition (4)

Biochemical and physiological responses related to nutrition and performance. Course may be repeated once for credit. Prerequisites: graduate standing, P E 3320, P E 4000 or equivalencies or consent of instructor. (F)

6600 Seminar in International Sports Programs (4)

A cross cultural study of the place of sport, dance, and exercise in education. Extent of governmental control of finance, program development, professional preparation. Special emphasis on programs in Scandinavia, Russia, and United Kingdom. Seminar may be repeated once for credit with consent of instructor. (Sp)

6610 Seminar in Physical Education Programs and Facilities (4)

Analysis of factors related to effective physical education curricula in elementary and secondary schools. Effect of national, state and local needs, legislation, staffing and facility requirements on curriculum development. (W)

6620 Seminar in Athletic and Sport Management (4)

Background and trends in administration and supervision of physical education and athletics, including secondary school and college programs for men and women. May be repeated once for credit with consent of instructor. (F)

6650 Seminar in Sports Medicine (4)

The role of sports medicine in contemporary sports and athletics. Philosophical, physiological, and legal aspects of the field. May be repeated once for credit with consent of instructor. Prerequisite: P E 3320 or consent of instructor. P E 4620 highly recommended. (W)

6850 Supervised Research (2-4)

Independent research under direction of faculty. May be repeated for credit with consent of advisor. Prerequisite: P E 6000. (A)

6899 Project (2-5)

Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their format. Supervision by a department committee, at least one of whom must be a Cal State Hayward, faculty member. Oral defense may be required. Prerequisite: graduate standing. Maximum of five units per student. (A)

6900 Independent Study (1-4)

Independent study under direction of faculty. May be repeated for credit with consent of advisor. (A)

6909 Departmental Thesis (2-5)

Development and writing of a research paper for submission to the department, which specifies its format. Supervision by a department committee, at least one of whom must be a member of the graduate faculty. Oral defense is required. Maximum of five units per student. Prerequisites: Graduate standing, consent of graduate coordinator, P E 6000 or equivalent. (A)

6910 University Thesis (2-6)

Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a graduate faculty member. Oral defense required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also "University Thesis Writing Guide" available in WA 859.) (A)

* Maximum of five (5) units of P E 6850/6900 may be utilized in meeting 45 units requirement.

Marine Sciences [MSC]

- [MOSS LANDING MARINE LABORATORIES](#)
- [M.S. IN MARINE SCIENCE](#)
- [GRADUATE COURSES](#)

MARINE SCIENCES

Moss Landing Marine Laboratories

Professors:

William W. Broenkow, Gregor M. Caillet, Michael S. Foster, Gary Greene (Director), Kenneth S. Johnson, Michael T. Ledbetter, James W. Nybakken, Nick A. Welschmeyer

Assistant Professor:

James T. Harvey

MOSS LANDING MARINE LABORATORIES

The California State University operates the Moss Landing Marine Laboratories (MLML) at Moss Landing on Monterey Bay, California. This facility functions as a seaside extension of the campuses of seven cooperating California State Universities (Hayward, Monterey Bay, San Jose, San Francisco, Sacramento, Stanislaus, and Fresno) and offers course work in marine biology, geology, oceanography, and other marine sciences.

Facilities

The laboratory occupies new facilities at Moss Landing which were built in the 1990's. The 1989 Loma Prieta earthquake demolished the original facility, but the coursework and research continue at the Salinas site until the new labs open in Moss Landing.

MLML's Marine Operations Center is located near the previous laboratory's site and facilitates oceanographic research by providing shore support. The Center houses equipment used for in-port maintenance of scientific equipment, SCUBA air compressor, shore-based radio operations, and other support needs.

The MLML maintains a collection of nautical charts and topographical maps with an emphasis on the West Coast and there is a growing collection of reprints. It also subscribes to abstracting services such as "Oceanic Abstracts" and "Aquatic Sciences and Fisheries Abstracts". A terminal is available for computer literature searches. Close ties are maintained with libraries at Stanford's Hopkins Marine Station, U.C. Santa Cruz, Naval Postgraduate School, and San Jose State University. Materials are borrowed from these agencies or further afield as the need arises. A special effort has been made to collect materials relating to Monterey Bay and Elkhorn Slough.

As a member of the Central California Oceanographic Cooperative (CENCAL), MLML operates the 135-foot Research Vessel *Point Sur*. The R/V *Point Sur*, built in 1981, is well-equipped for instructional use and research, with a trawl winch, two hydrographic winches and three laboratories, scientific equipment for sampling and oceanographic

profiling, Smith-McIntyre grabs, rock dredges, and various types of coring devices. Also available is a variety of nets for bottom and midwater trawls.

The Laboratories also own and operate the 35-foot R/V *Ed Ricketts*. This workboat is used for trawling, water sampling and other work near shore, and serves as a diving platform.

In addition, faculty and students at MLML utilize other University National Oceanographic Laboratory System (UNOLS) vessels when they have research requirements for larger vessels or for vessels in a different area of the world. MLML personnel have participated in cruises to Baja California, Hawaii, the Bahamas, Mexico, South America, the Arctic, and the Antarctic.

Graduate Program

A Master of Science in Marine Science degree program is offered at MLML for students from Cal State Hayward and the other consortium schools. Details of this program follow. In addition, graduate students from Cal State Hayward may take such courses at Moss Landing as are appropriate to their degree objectives, including that of an M.S. in Biological Science or an M.S. in Geological Sciences. (See the [Biology](#) and [Geology](#) chapters in the graduate section of this catalog.) A major part of the work leading to the M.S. degree in Biological Science, particularly in the environmental biology option, or to the M.S. degree in Geological Sciences may be completed at the Marine Laboratories. Normally, a minimum of one or two quarters enrollment for other necessary courses on the Hayward campus may also be required.

Courses Offered

Full-time coursework and research in marine sciences are offered the year around. Emphasis in instruction and research is at the upper-division undergraduate and graduate levels. The Laboratories operate on a semester system during the academic year.

A total of thirty to forty units are offered each term in marine biological and physical sciences. Contact the Cal State Hayward Biology Department for a current list of courses for the term you wish to attend, or you can write to Moss Landing Marine Labs, P.O. Box 450, Moss Landing, CA 95039. Basic courses offered every term include marine ecology, marine science diving, graduate seminar, and selected topics in marine sciences. See graduate course offerings listed at the end of this section. Also see the [Marine Science chapter](#) in the Undergraduate section of this catalog for undergraduate course listings.

Nature of Instructional Program

Classes usually are small, with major emphasis upon field and laboratory instruction, and with a strong independent study or directed research component. Coursework usually is organized into large blocks of time--all day on a given day. Since field and laboratory activities are more demanding of time and energy than is usual for on-campus courses, the staff recommends that the student limit his or her academic load to twelve units. While it is possible to commute to Moss Landing for part-time work, this is not recommended because of the time and energy drain. In addition to standard course offerings, independent study (undergraduate) and graduate research and thesis work may be undertaken under supervision of staff members currently in residence.

Research Areas and Emphases at Moss Landing

Stress is upon field-oriented studies of marine and estuarine ecosystems, with physical science researches concerned particularly with geological, chemical, and physical limiting factors, and biological investigations dealing with relationships of organisms to these factors. Where possible, physical and biological studies are paired to provide reciprocal benefits from a team approach and from interdisciplinary faculty sponsorship. The nearshore shallow waters of Monterey Bay, Elkhorn Slough, and the deep waters of the Monterey Submarine Canyon provide a wide diversity of habitats.

Housing in Moss Landing Area

Commercial housing (apartments, small furnished houses, rooms with or without board, etc.) is available at communities near Moss Landing--Castroville, Salinas, Watsonville, Aptos, Monterey. Short-distance commuting from these areas is necessary; thus, availability of a car or participation in a car pool usually is required.

Registration Procedures

Since MLML courses are offered on the semester system (Fall and Spring semesters), there are special registration procedures.

Students must complete and submit a "Space Reservation" form to MLML (available through the Cal State Hayward Biology Department and through MLML). Permission must be given by the Cal State Hayward Biology Secretary for Hayward MLML students to register by phone via SAILOR (the on-line registration system). Students must also attend the first day of classes at MLML.

Fall and Spring SAILOR registration for MLML courses is at the same time as Cal State Hayward's regular Fall and Spring registration. Fall registration fees are paid at the same time as regular Fall registration fees. Spring registration fees must be paid at the beginning of Spring semester MLML classes (end of January).

M.S. IN MARINE SCIENCE

Program Description

This degree program, offered through the Department of Biological Sciences and the Department of Geological Sciences, provides the opportunity for students to acquire a practical and theoretical education in the marine sciences to prepare them for careers as marine specialists, scientists and teachers. The program at Moss Landing provides interdepartmental work and a field facility for advanced study in the marine sciences which cannot be duplicated on the Cal State Hayward campus.

Admission to the Program

The master's degree program is administered through either the Department of Biological Sciences or Department of Geological Sciences, depending on the choice of the student. The prospective student must meet the admission requirements of either of these departments. Refer to descriptions of these department graduate programs for complete information. Students will be accepted as "Conditionally Classified Graduate" students in the department of their choice upon completion of the admission requirements. The student will become a "Classified Graduate" student upon completion of MLML's requirements (below).

MLML Classification in the Program

A "Conditionally Classified Graduate" student may become a fully "Classified Graduate" student in the marine science program as set forth in the following steps.

1. Obtain an adviser at MLML and one from the science department at the home campus. Each new student in the master's program at MLML will be assigned an advisor who may or may not be the final thesis advisor.
2. Make up any coursework deficiencies in either the home campus department (see their regulations) and/or at MLML. M SC 4104 Quantitative Marine Science, and three of the following five courses are prerequisites for

"Classified Graduate" standing: M SC 4103 Marine Ecology, 4141 Geological Oceanography, 4142 Physical Oceanography, 4143 Chemical Oceanography, and 4144 Biological Oceanography. These courses may be waived by the graduate committee upon certification that equivalent courses have been satisfactorily completed. M SC 4104 Quantitative Marine Science cannot be counted toward the 45 unit degree requirement.

3. Students who do not receive a grade of "B" or better in the courses described in (2) above taken at MLML, or who wish to substitute equivalent courses taken elsewhere regardless of the grade(s) received, must petition to have the courses accepted, or must pass a written qualifying examination given by the faculty at MLML. The examination will substitute for any equivalent examination given by home campus departments. There is no official time limit, but the exam should be taken as soon as possible; only a limited number of units taken while in "Conditionally Classified" status can be counted toward the degree. The exam may be repeated once, and must be passed before the student can be "Classified." The examination will consist of a choice of five out of six questions designed to test knowledge of the concepts and principles of oceanography, marine ecology, and statistics as covered in the courses listed under (2) above. It will be used to evaluate the student's background in these subject areas and the ability to write well and formulate answers logically. Each answer will be graded "pass" or "fail" by two faculty members (a third faculty member will resolve disagreements) on accuracy, content, and ability to clearly communicate. For a reading list covering the required material and further details concerning the exam, see MLML's Assistant to the Director.
4. Students must have satisfied the University Writing Skills requirement according to Cal State Hayward standards.

Advancement to Candidacy

In order to be Advanced to Candidacy, the student must have:

1. attained "Classified Graduate" standing;
2. selected a thesis problem and a thesis advisor committee. The thesis committee will be composed of at least three members, including one faculty member from MLML (who is ordinarily the thesis advisor) and, at the discretion of the home campus, a representative from that campus. The other member or members of the thesis committee may be from MLML, the home campus, or elsewhere, with the approval of the thesis advisor.

Curricular Requirements

A student becomes eligible for the master's degree in Marine Science after the following requirements have been satisfied:

1. The student has been Advanced to Candidacy
2. The student has satisfied MLML's requirements for the degree
3. The student has completed the following curriculum requirements:
 - a. A minimum total of 22.5 quarter units of 6000-level courses (a minimum of 45 units), including 3 units of M SC 6285, 6286, or 6287, and 6 units of M SC 6910.
 - b. A total of not more than 22.5 units of 3000-, 4000-, and/or 6000-level courses as approved by the thesis committee. Elective courses that may be used to satisfy requirements for the major are listed below by catalog number, title, and quarter units of credit.

M SC 4110 Introduction to Marine Animal Behavior (6), 4112 Marine Birds and Mammals (6), 4113 Marine Ichthyology (6), 4124 Marine Invertebrate Zoology I (6), 4125 Marine Invertebrate Zoology II (4.5), 4131 Marine Botany (6), 4135 Physiological Ecology of Marine Algae (6), 4161 Marine Fisheries (6), 4173 Topics in Marine Biology (1.5-6), 4174 Topics in Oceanography (1.5-6), 4175 Topics in Marine

Science (1.5-6), 4177 Microscope Techniques (4.5)

M SC 6202 Marine Instrumental Analysis (6), 6204 Sampling and Experimental Design (6), 6211 Ecology of Marine Birds and Mammals (6), 6212 Advanced Topics in Marine Vertebrates (1.5-6), 6221 Advanced Topics in Marine Invertebrates (1.5-6), 6222 Biology of the Mollusca (6), 6231 Biology of Seaweeds (6), 6233 Advanced Topics in Marine Ecology (1.5-6), 6234 Advanced Biological Oceanography (6), 6242 Plate Tectonics (4.5), 6244 Paleooceanography (6), 6245 Deep Sea Sedimentation (6), 6251 Marine Geochemistry (6), 6261 Ocean Circulation and Mixing (6), 6262 Satellite Oceanography (6), 6263 Application of Computers in Oceanography (6), 6271 Population Biology (4.5), 6272 Subtidal Ecology (6), 6274 Advanced Topics in Oceanography (1.5-6), 6280 Scientific Writing 3., 6900 Independent Study (1.5-6)

Other electives, including courses from the home campus departments, may be included after consultation with the advisory committee. The combination of required units (seminar and thesis) and elective units must total at least 45 quarter units.

4. The student must have submitted a University Thesis approved by the thesis advisory committee. The thesis must conform to the rules set forth in the Cal State Hayward "University Writing Guide" available in WA 859.
5. The student must successfully give an oral thesis defense in the form of a seminar open to the general public. The thesis advisory committee must be present, may require further oral questioning after the seminar, and will evaluate the success of the presentation.

GRADUATE COURSES

Units are quarter units, class hours are weekly on semester calendar.

Biological Science

6202 Marine Instrumental Analysis (6)

Theory and use of advanced instrumentation; advanced field and lab techniques for the interpretation of data collected in marine science research. Prerequisites: GEOL 3400, M SC 4142, 4143. Two hrs. lect., 6 hrs. lab. (Alt. Sp)

6204 Sampling and Experimental Design (6)

Basic design of experiments and field sampling; random sampling, systematic sampling, subsampling, survey techniques, and design of single and multifactorial experiments using randomized and block experiment designs. Prerequisites: M SC 4103 and 4104. Four hrs. lect.

6211 Ecology of Marine Birds and Mammals (6)

Community approach to ecology of marine birds and mammals using experimental and sampling methodology, examining the distribution, abundance, trophic ecology, and behaviors of birds and mammals in Elkhorn Slough and Monterey Bay. Prerequisites: M SC 4103, 4104 and 4112. Two hrs. lect., 6 hrs. lab/field.

6212 Advanced Topics in Marine Vertebrates (6)

Advanced consideration of the ecology, physiology, and phylogeny of fishes, birds, or mammals, emphasizing current literature and research. Topics and emphasis vary with term and instructor. May be repeated for credit with consent of instructor. Prerequisites: BIOL 3580, M SC 4112, 4113, or BIOL 4570, and consent of instructor. Two hrs. lect., 6 hrs. lab. (Alt. F)

6221 Advanced Topics in Marine Invertebrates (6)

Advanced considerations of the ecology, physiology, and phylogeny of the various invertebrate phyla emphasizing current literature and research. Topics and emphasis vary from term to term. May be repeated for credit with consent

of instructor. Prerequisites: M SC 4124 or BIOL 3521, -2 and consent of instructor. Two hrs. lect., 6 hrs. lab. (On demand)

6222 Biology of the Mollusca (6)

Systematics, functional morphology, ecology and physiology of the mollusca with emphasis on marine forms. Prerequisites: M SC 4124 or BIOL 3521, -2 and consent of instructor. Two hrs. lect., 6 hrs. lab.

6231 Biology of Seaweeds (6)

Lecture-discussion on marine macroalgal biology with extensive reading of original literature. Ecologically oriented individual research projects involving laboratory culture and field experimentation. Prerequisites: M SC 4131 or equivalent, consent of instructor. Two hrs. lect., 6 hrs. lab. field (Alt. Sp)

6233 Advanced Topics in Marine Ecology (1.5-6)

Selected topics and current issues in marine ecology. The subjects vary depending on student demand and availability of instructors. May be repeated for credit with consent of instructor. Prerequisites: M SC 4103 and consent of instructor. (On demand)

6234 Advanced Biological Oceanography (6)

A continuation of biological oceanographic studies. Lectures and discussion of special topics such as human impact on the marine environment. Critical analyses of current literature. An individual research project involving the use of one or more available analytical tools is required. Prerequisites: M SC 4144 or consent of instructor. Two hrs. lect., 6 hrs lab.

6271 Population Biology (4.5)

Principles involved in interaction among marine organisms which result in the alteration of population structures. Techniques for assessment and management of animal populations. Not open to students with credit for BIOL 6170. Prerequisites: M SC 4103, 4104 or STAT 3031 and consent of instructor. Two hrs. lect., 3 hrs. lab/field.

6272 Subtidal Ecology (6)

The ecology of nearshore rocky subtidal populations and communities with emphasis on kelp forests. Lectures and discussions of original literature. Field work with SCUBA including group projects on underwater research techniques and community analysis, and individual research on ecological questions chosen by the student. Prerequisites: MLML diver certification and marine ecology (knowledge of marine algae, invertebrates, and statistics recommended). Two hrs. lect., 6 hrs. lab.

6274 Advanced Topics in Oceanography (1.5-6)

The study of a selected area in oceanography. The subjects vary depending on student demand and availability of instructors. Prerequisite: consent of instructor. May be repeated for credit with consent of instructor.

6280 Scientific Writing (3)

The techniques and strategies of scientific writing used for proposals, journal submissions, and abstracts of meetings. Students will develop their writing skills by preparing, editing, and rewriting manuscripts. Prerequisites: graduate standing and consent of instructor. Two hrs. lect/disc.

6285 Graduate Seminar in Marine Biology (3)

A seminar in marine science for presentation and discussion of advanced studies in special fields. May be repeated once for credit. Prerequisites: graduate standing and consent of instructor. Two hrs. seminar, discussion. (F, Sp, Su)

6900 Independent Study (1.5-6)

6910 University Thesis (1.5-6)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also, "University Thesis Writing Guide" available in WA 859 at Cal State Hayward.)

Geological Sciences Courses

6202 Marine Instrumental Analysis (6)

Theory and use of advanced instrumentation; advanced field and lab techniques for the interpretation of data collected in marine science research. Prerequisites: M SC 4101 or GEOL 3400, M SC 4102, CHEM 2200. Two hrs. lect., 6 hrs. lab. (Alt. Sp)

6204 Sampling and Experimental Design (6)

Basic design of experiments and field sampling; random sampling, systematic sampling, subsampling, survey techniques, and design of single and multifactorial experiments using randomized and block experimental designs. Prerequisites: M SC 4103 and 4104. Four hrs. lect.

6242 Plate Tectonics (4.5)

Historical background, modern theory and geophysical evidence of continental drift, sea floor spreading and plate tectonics. Examinations of the impact of the recent revolution in historical geology. Prerequisites: M SC 4141 or consent of instructor. Three hrs. lect. (Alt. F)

6244 Paleoceanography (6)

Interdisciplinary studies of the provenance, biologic and geologic composition of marine sediments and of the organisms contributing to their formation; sedimentary processes affecting these sediments. Prerequisites: M SC 4101 and college geology and biology. Three hrs. lect., 3 hrs. lab. and field. (Alt. Sp)

6245 Deep Sea Sedimentation (6)

Study of the types of marine sediment found in the deepest part of all oceans; the sedimentary processes responsible for the deposition, preservation and re-deposition of these sediments. Prerequisites: M SC 4141 or consent of instructor. Three hrs. lect., 3 hrs. lab.

6251 Marine Geochemistry (6)

Geochemical processes in the oceans: thermodynamics of low temperature aqueous reactions, weathering, oxidation-reducing and biologically mediated reaction, processes occurring at the sea floor and air-sea interface. Prerequisites: M SC 4143, quantitative analysis, one year of calculus, or consent of instructor. Two hrs. lect., 6 hrs. lab.

6261 Ocean Circulation and Mixing (6)

The mathematical description of the distribution of properties (density, dissolved oxygen, etc.) in the oceans relating to physical and biochemical processes. Theory of distribution of variables, geostrophic method. Prerequisites: M SC 4142 and college physics strongly recommended; one year of calculus, or consent of instructor. Three hrs. lect., 3 hrs. lab. (Alt. Sp)

6262 Satellite Oceanography (6)

Basic principles of remote sensing of the oceans, including electromagnetic radiation, physical principles, blackbody radiation, atmospheric scattering and absorption. Principles of radiometric measurements, mapping, imagery. Prerequisites: M SC 4142 and 4143 or consent of instructor. M SC 6263 and computer literacy recommended. Two hrs. lect., 6 hrs. lab.

6263 Application of Computers in Oceanography (6)

Marine Science applications of multi-user computer including use of existing programs, subroutine libraries, computer communications, and scientific programming for data analysis. Prerequisites: M SC 4104, college math, and consent of instructor. Two hrs. lect., 6 hrs. lab.

6274 Advanced Topics in Oceanography (1.5-6)

The study of a selected area in oceanography. The subjects vary depending on student demand and availability of instructors. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

6286 Graduate Seminar in Marine Geology (3)

Seminar on topics in marine geology with change in subject each term of offering. Each student will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. Two hrs. seminar, disc. (Alt. F)

6287 Graduate Seminar in Oceanography (3)

Seminar on topics in oceanography with change in subject each term of offering. Each student will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. Two hrs. seminar, disc. (F, Sp)

6900 Independent Study (1.5-6)

6910 University Thesis (1.5-6)

Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 6 quarter units per student. (See also "University Thesis Writing Guide," available in WA 859 at Cal State Hayward.)

Business Administration [ACCT, CIS, FIN, MGMT, MKTG]

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- [SECONDARY LEVEL TEACHING PROGRAM](#)
- [COURSE OFFERINGS](#)
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- [MASTER OF BUSINESS ADMINISTRATION](#)
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- [M.S. IN TAXATION](#)
- [TAXATION CERTIFICATE](#)
- [GRADUATE COURSES](#)

BUSINESS ADMINISTRATION



Departments of Accounting and Computer
Information Systems, Economics, Management and Finance, Marketing
School of Business and Economics

Dean: Jay L. Tontz

Dean's Office: Music and Business Bldg., Room 2571

Phone: (510) 885-3311

- **School of Business and Economics Student Service Center** (MB 2525, 510-885-3323)
- **Department of Accounting and Computer Information Systems** (MB 2579, 510-885-3336)

Professors:

Doris G. Duncan, Micah Frankel, Vernon T. S. Kam (Chair), Franklin Lowenthal, Nancy R. Mangold, Bijan Mashaw, Gary R. McBride, Edward T. Ossman, Kenneth Pefkaros, Ray Roberts, Diane Satin, Philip P. Storrer, Kathleen K. Wright

Associate Professors:

Alexander Bordetsky, Ching-Lih Jan, Tung-Shing Lam, Y. Robert Lin, Christopher W. K. Lubwama

Lecturers:

Charlene Abendroth, Suzanne M. Busch, Stuart G. Gould, James E. Potter, Bruce L. Raine, Gregory Sinclair, F. Victor Stanton

- **Department of Economics** (MB 2583, 510-885-3339)

See the graduate [Economics chapter](#) for a listing of Economics faculty and a description of the M.A. in Economics.

- **Department of Management and Finance** (MB 2591, 510-885-3322)

Professors:

S. David Aviel, Sam N. Basu, Loretta Breuning, Samuel I. Doctors, Spyros Economides, J. William Gotcher, Craig G. Johnson, John G. Kilgour, Duane R. Lambert, John B. Major, Stephen H. Miller, William L. Moore, Vladimir M. Ozernoy, Surendra Pradhan, Zinovy Radovilsky, Susan D. Schaefer, Allen J. Schuh, Paul D. Staudohar, Harry Waters, Jr., John J. Villarreal, William D. Whisler, Donna L. Wiley, Donald H. Wort (Chair), Richard Zock

Associate Professors:

Hadi Behzad, Alan P. Goldberg, Sharon Green, Guido Krickx, Fung-Shine Pan, Lynn Pi, Nicolai Rogovsky

■ **Department of Marketing** (MB 2583, 510-885-4146)

Professors:

Bruce MacNab, Lance A. Masters (Chair), Ricardo L. Singson, Norman Smothers, Eric Soares

Associate Professors:

Jagdish Agrawal, Chong Lee, Steve Ugbah

Assistant Professor:

Cesar Maloles

Lecturers:

Deborah Brown, Stevina Evuleocha

■ **Institutes and Centers**

Center for Business and Environmental Studies.

Director: Samuel I. Doctors

Center for Economic Education.

Director: Jane E. Lopus

Center for New Ventures and Alliance

Director: Ricardo L. Singson

Human Investment Research and Education Center

Director: Nan Maxwell

Institute of Research and Business Development

Director: Bruce MacNab; *Associate Director:* Shyam Kamath

Smith Center for Private Enterprise Studies

Director: Charles W. Baird; *Associate Director:* Sam Basu

Graduate Programs (MB 2575, 885-3964)

Director of Graduate Programs: Donna L. Wiley

Associate Director of Graduate Programs: William L. Moore

Graduate Faculty Advisors for M.B.A. Options

M.B.A./Accounting: Charlene Abendroth

M.B.A./Administration: Donna Wiley

M.B.A./Business Economics: Leo Kahane

M.B.A./Computer Information Systems: Franklin Lowenthal

M.B.A./Executive: Kurt Leube

M.B.A./Finance: Surendra Pradhan, Sam N. Basu

M.B.A./Human Resources Management: Donna L. Wiley

M.B.A./International Business: Loretta Breuning

M.B.A./Management Sciences: John Villareal

M.B.A./Marketing Management: Jagdish Agrawal

M.B.A./New Ventures/Small Business Management: Ricardo L. Singson

M.B.A./Operations Research: Alan Goldberg

M.B.A./Taxation: Gary McBride, Kathleen K. Wright

Graduate Coordinators

M.S./Taxation: Gary McBride, Kathleen K. Wright

M.S.B.A./Computer Information Systems/Quantitative Business Methods: Alan Goldberg

PROGRAM DESCRIPTION

The mission of the master's programs in the School of Business and Economics at Cal State Hayward is to provide an excellent graduate education that will allow you to succeed in a business environment that is characterized by rapid technological advancements; a work force of ethnic, cultural, and gender diversity; demands for continuous improvements in quality and service; the necessity for continuous individual and organizational learning; and need for the understanding and skills to practice in global markets. All our programs are accredited by The American Assembly of Collegiate Schools of Business (AACSB).

The Master of Business Administration (M.B.A.) program is designed to provide you with a balance of functional expertise and general managerial competencies. You may select from twelve areas of concentration called options, each of which includes electives both within and outside of your area of concentration. This allows you to tailor the program to meet your individual career goals. In addition, three specialized master's programs, the M.S. in Business Administration with an Option in Computer Information Systems/Quantitative Methods, M.S. in Taxation, and Master of Arts in Economics (see [Economics chapter](#) in graduate section of this catalog), prepare students who seek specialized careers in these areas.

In pursuit of this mission, graduate programs in the School of Business and Economics will provide you with:

- a balance of theoretical concepts and practical approaches to business problems;
- a balance of quantitative, analytical, and interpersonal skills;
- an understanding of the ethical, political, social, legal, environmental and technological issues that influence business;
- opportunities to experience and gain expertise in leading edge instructional and business technologies;
- an understanding of global issues facing business and opportunities for international educational experiences; and
- a broad, multidisciplinary, strategic vision that allows you to manage innovation and change.

The School of Business and Economics offers the following master's degrees in the area of business administration:

1. Master of Business Administration (M.B.A.) with the following options:

- a. Accounting
- b. Administration
- c. Business Economics
- d. Computer Information Systems (C.I.S.)
- e. Executive
- f. Finance
- g. Human Resources Management
- h. International Business
- i. Management Sciences
- j. Marketing Management
- k. New Ventures/Small Business Management (NVSBM)
- l. Operations Research
- m. Taxation

2. Master of Science (M.S.) with an Option in Computer Information Systems/Quantitative Business Methods (Q.B.M.)

SECONDARY LEVEL TEACHING PROGRAM

If you are interested in secondary teaching, be aware that the university does not offer either a subject matter preparation program or a credential program in Business Education. Furthermore, although you can complete the undergraduate Business Administration major on this campus and then enroll in the fifth year credential program elsewhere, the university does not offer all of the coursework prerequisite to some credential programs.

COURSE OFFERINGS

Hayward Campus

All requirements for all graduate programs of the School of Business and Economics are offered on the Hayward campus except for the Executive Option. Lower and upper division courses satisfying the graduate program foundation requirements are scheduled both during the day and in the evening. Graduate courses (6000-level) are offered primarily in the evening.

Contra Costa Campus

The upper division undergraduate courses for the M.B.A. foundation coursework and the 6100-6999 level courses needed for the M.B.A. core and for the Finance and Management Sciences options of the M.B.A. program are also offered at the Cal State Hayward, Contra Costa Campus, 4700 Ygnacio Valley Road, Concord, 94521, phone (510) 602-6700. If you are enrolled in other M.B.A. options, you can complete all of your remaining upper division M.B.A. foundation requirements, the M.B.A. core, and one to three of your option requirements at Contra Costa, leaving them with a maximum of six graduate courses to be completed on the Hayward campus. No lower division courses are offered at Contra Costa; thus, any lower division M.B.A. prerequisites that you have not completed will need to be taken at a community college, the Hayward campus, or another institution.

Upper division courses at Contra Costa are scheduled both during the day and in the evening; graduate 6100-6999 level courses are offered only in the evening. See the [General Information chapter](#) and the [map](#) at the back of this catalog for additional information on the Cal State Hayward Contra Costa Campus.

COMMON REQUIREMENTS

For M.B.A., M.S. Business Administration, and M.S. Taxation Degrees

Admission

These programs are open to students who hold a baccalaureate degree from an accredited college or university.

Applications for admission to the M.B.A. Program are accepted for each quarter. Each applicant is evaluated on the basis of: (1) past academic records as reflected in undergraduate grade point average and subsequent coursework; (2) results of the Graduate Management Admissions Test (GMAT).

Admission is automatic for applicants with (1) a minimum 1050 "Index Score" and (2) minimum 20th percentile GMAT verbal and quantitative scores. [Index Score = (Upper Division GPA x 200) + Total GMAT].

Applicants who do not meet the above criteria are referred to the Graduate Admissions Committee for consideration for admission to the program. The applicant should provide the committee with complete background information including: (1) post-baccalaureate academic performance; (2) recent work experience; (3) community activities and service; (4) letters of recommendation and (5) a statement of purpose that details the candidate's qualifications and objectives and his/her reasons for pursuing an M.B.A.

Classification in the Programs

If you have a baccalaureate degree from a regionally accredited institution but have not been admitted to any graduate degree program, you can apply for admission to the university as an "Unclassified Post-baccalaureate" student (formerly called a "non-objective" student). If you are an "Unclassified Post-baccalaureate" student and wish to be admitted into the M.B.A. program, you should complete a "Change of Graduate Objective" form, which can be obtained at the Student Services Center (SBE) or Enrollment Services Office. Admission to the university as an "Unclassified Post-baccalaureate" student in no way implies acceptance to a graduate degree program. Undergraduate and "Unclassified Post-baccalaureate" students may not take 6000-level courses with ACCT, CIS, FIN, MGMT, or MKTG prefixes. In addition, certain 6000-level courses in the Department of Economics are also closed to undergraduates and "Unclassified Post-baccalaureate" students (see [Economics chapter](#) in graduate section of this catalog).

There are three levels of advancement for you within the M.B.A., M.S. Business Administration, and M.S. Taxation programs: "Conditionally Classified Graduate" standing, "Classified Graduate" standing, and Advancement to Candidacy.

1. *"Conditionally Classified Graduate" standing*

If you have been admitted to a graduate degree program but have not satisfied all foundation coursework, other program requirements, and/or the University Writing Skills requirement, you are a "Conditionally Classified Graduate" student. You may be admitted to a graduate degree program as a "Conditionally Classified Graduate" student upon:

- a. submission of an application with required supporting documents and fee payment to the Admissions Office of the university;
- b. acceptance by the program based on past academic performance, GMAT score, and other relevant criteria;
- c. completion of other appropriate requirements as specified in the Graduate and Post-baccalaureate chapter of this catalog.

2. *"Classified Graduate" standing*

If you have been admitted to a graduate degree program by meeting the requirements established in item (1) above, and have fulfilled all foundation coursework and other requirements including the University Writing Skills requirement, you can become a "Classified Graduate" student. As a practical matter, if you enter the program with a strong background in your new field of study and have satisfied the University Writing Skills requirement, you can begin as a "Classified Graduate" student. If you enter the program from a different discipline, you can become a "Classified Graduate" student after completing foundation coursework and have been recommended for such standing by the department. You must have satisfied the University Writing Skills requirement as explained in the Graduate and Post-baccalaureate Studies chapter in this catalog and all other proficiency evaluations (e.g., the School of Business Proficiency Test) specified for your degree program.

3. *Advancement to Candidacy.*

To be Advanced to Candidacy you must:

- a. be a "Classified Graduate" student in good standing;
- b. have completed 12 quarter units of 6100-6999 level courses beyond the 6000 through 6099 foundation courses;

- c. have completed such other requirements as prescribed by the program faculty;
- d. have been recommended for Advancement to Candidacy by the program faculty.

The academic performance of all SBE graduate students will be monitored by the SBE Director of Graduate Programs. Those found to have an unsatisfactory performance at any point in time will be recommended for disqualification from their degree program.

Proficiency Evaluations

Proficiency evaluations in writing skills must be satisfied in each of the Business Administration graduate programs. The Writing Skills Test (WST) must be taken during your first quarter after receiving "Conditionally Classified Graduate" standing unless you met the Writing Skills requirement as an undergraduate or graduate student at one of the CSU system campuses. Preparatory courses for the WST include ENGL 3000, 3001, 3003, and/or 3020. If you are quite weak in writing skills, you should consider enrolling in ENGL 0910, 0915, 0920, 0925, 1001, 1002, and/or 2005 prior to scheduling ENGL 3000, 3001, 3003, or 3020. Passing the WST is a prerequisite for "Classified Graduate" standing. The Writing Skills Test is administered by the Office of Assessment and Testing located in Warren Hall (WA 438), phone 885-3661. You should contact this office directly for information on test dates, registration procedures, and fees. The School of Business Proficiency Tests (SBPT) in mathematics and statistics are described below.

International Requirement

To receive an M.B.A., M.S./B.A., or M.S./Taxation degree, you must have completed a four-unit course in international business/international economics either as part of your foundation coverage (ECON 4700, 4710; MGMT 4670; MKTG 4470) or as part of the 45 units of the M.B.A., M.S./BA, or M.S./Taxation degree (ACCT 6470; ECON 6700, 6710; FIN 6375; MGMT 6670; MKTG 6675, 6470). In order for a course to both satisfy the International Requirement and count as a part of your 45 degree units beyond the foundation courses, the course must be selected from the above list of 6100-6199 level courses and must be approved by the graduate advisor or SBE Director of Graduate Programs.

Requirements for Graduation

To be eligible for the M.B.A., M.S. in Business Administration, or M.S. in Taxation degree, you must:

1. have been a "Classified Graduate" student and Advanced to Candidacy (see items (2) and (3) under the section on Classification in the Programs)
2. have satisfied the international requirement (see the section directly above)
3. have completed 45 quarter units of which:
 - a. all are beyond the foundation coursework;
 - b. all have a course grade of "C" or better and a 3.00 GPA;
 - c. all are applicable to the degree;
 - d. at least 32 are in residence as a "Classified and/or Conditionally Classified Graduate" student;
 - e. not more than 13 are for extension and/or transfer credit (any extension and/or transfer credit must be approved by the SBE Director of Graduate Programs) and/or coursework taken in "Unclassified Postbaccalaureate" status;
 - f. all are earned within the five years immediately preceding the completion of the requirements for the degree;
 - g. the distribution of the 45 units offered for a specific graduate degree must meet the general guidelines specified by the American Assembly of Collegiate Schools of Business (AACSB), the professional accrediting body for Business Administration academic programs;
 - h. not more than 5 units are for thesis, independent study and/or a project, except in the case of the M.B.A./Operations Research Option and the M.S. Business Administration/CIS/QBM Option, where up to 9 units may be taken with the approval of the SBE Director of Graduate Programs.
4. have a 3.0 grade point average for the 45 quarter units offered as satisfying the requirements of the student's degree program

5. have completed a satisfactory program of study as determined by the School of Business and Economics and the university.

Capstone Requirement

The university requires all masters degree students to complete a capstone requirement prior to graduating. For most programs under the M.B.A. and M.S.B.A., the capstone requirement will be a University or Departmental Thesis or a Comprehensive Examination. Consult the catalog description for the specific requirements of your degree program.

M.B.A./M.S.B.A. Comprehensive Examination

You are eligible for the examination if you will have completed all foundation coursework and a minimum of 32 units in the program by the examination date and are not on academic probation. Once you have met the requirements, you may register for the examination by completing a "Comprehensive Examination Request" form in the SBE Student Service Center. This form may be submitted at registration or any time up to two weeks prior to the examination date. You should also enroll in the one-unit 6901 course, Preparation for the Comprehensive Exam, no later than the quarter in which you intend to take the examination.

The Comprehensive Examination is offered twice a year -- at the end of the Fall and Spring quarters. The examination is prepared by the Cal State Hayward faculty and focuses on the broad conceptual content of both the graduate core courses and your specialty. A study guide and prior comprehensive examinations are available from the SBE Student Service Center to provide guidance in studying for the examination.

MASTER OF BUSINESS ADMINISTRATION

In addition to the set of common requirements for the M.B.A., M.S. in Business Administration, and M.S. in Taxation degrees presented in the preceding section, there are requirements specific to the Master of Business Administration (M.B.A.) degree. These requirements are discussed in this section

General Curricular Requirements for M.B.A. Degree Programs Accredited by AACSB

The American Assembly of Collegiate Schools of Business is the professional accrediting body for Business Administration degree programs. Graduate option advisors will assist students in planning the content of their Cal State Hayward M.B.A. degree to comply with the listed AACSB guidelines.

You must plan your M.B.A. so that in the process of completing the university requirements for graduation (see "Requirements for Graduation" in the Common Requirements section) you comply with the following AACSB accreditation requirements:

1. The AACSB-defined common body of knowledge (CBK) in Business Administration must be covered. The package of Cal State Hayward requirements presented to AACSB as satisfying the CBK includes: (a) the proficiency evaluations described below, (b) the set of M.B.A. foundation courses listed below, (c) the International Requirement described above, and (d) either an undergraduate (MGMT 4650) or a graduate (MGMT 6650) business policy course.
2. At least 22.5 of the 45 units of a student's M.B.A. degree program must be in units that are both outside the student's specialty and beyond the CBK coursework.
3. At least 36 of the 45 units of a student's M.B.A. degree program must be in classes that are both restricted to graduate students only and beyond the CBK coursework. In the case of Accounting option students, Cal State Hayward requires that all 45 units of their M.B.A. meet these criteria.

Proficiency Evaluations

The M.B.A. degree program requires the writing skills proficiency evaluation described under the Common Requirements for the M.B.A., M.S. in Business Administration, and M.S. in Taxation degrees. In addition, if you are enrolled in the M.B.A. degree program, you are required to pass proficiency tests in the introductory statistics and in mathematics sections of the SBPT if you have not completed equivalent coursework in the three previous years with a grade of "B" or higher. The latter will include introductory differential calculus, college algebra, matrix algebra, and finite math. The content of the mathematics exam will relate to the coverage in MATH 1130, 1810, and 1820 and of the statistics exam to the coverage in STAT 2010.

You should complete the mathematics and statistics test sections by the end of your first quarter after admission to one of the Business Administration programs. Proficiencies that are not satisfied through the initial testing must be cleared by completion of comparable coursework with a grade of "B" or higher, or by retaking and passing the mathematics and statistics sections of the SBPT. Mathematics and statistics coursework can be taken at Cal State Hayward or elsewhere, including community colleges, prior to or after admission to a graduate program, to fulfill the requirement. Such coursework should be started by the beginning of the second quarter after you have enrolled as a "Conditionally Classified Graduate" student. Appropriate additional coursework must then be scheduled each quarter until all proficiency deficiencies have been cleared. Furthermore, until these deficiencies are cleared, you will not be permitted to enroll in any course for which the deficiency course area is either a direct prerequisite or an indirect one through other listed prerequisites, such as MGMT 6100.

All of the proficiency exams are administered by the Office of Assessment and Testing, located in Warren Hall, Room 438 (phone 885-3661). You should contact this office directly for information on test dates, registration procedures, and fees.

Foundation Coursework for the M.B.A.

The M.B.A. program is built upon a common body of knowledge which is covered by the foundation courses. It is not necessary to complete all, or even any, of the foundation coursework before applying for admission to the M.B.A. degree program. In fact, it is strongly recommended that application to the M.B.A. program be made as early as practicable. If you are admissible and have not satisfied the foundation coursework, you will be admitted as a "Conditionally Classified Graduate" student.

Having "Conditionally Classified Graduate" status allows you to enroll in the 6000 to 6099 series of graduate-level foundation courses. These accelerated courses that are designed for graduate-level students. Using these courses, where available, substantially reduces foundation units that must be completed for a given degree. These courses are offered through Special Session (University Extension Services, WA 851).

Equivalent previous coursework will satisfy listed foundation courses. Students who have received an undergraduate degree in Business Administration from an AACSB-accredited institution are exempt from the foundation coursework requirements. Please contact the SBE Student Services Center for a list of AACSB-accredited institutions. A grade of "C-" or better is necessary for a transfer or a Cal State Hayward course (whether completed currently or in the past) to be accepted for foundation requirements. Note also that all 6000 to 6099 numbered Business Administration courses (i.e., ACCT, CIS, FIN, MGMT, MKTG and ECON 6051) with titles beginning with "Graduate Introduction to . . ." are graduate program foundation courses and cannot be calculated as part of the 45 units required for a SBE graduate degree.

Foundation Coursework Common to All M.B.A. Options Except Executive Option (44 units)

If you have foundation coursework to be completed, you are urged to secure "Conditionally Classified Graduate" standing as early as possible. Having "Conditionally Classified Graduate" status qualifies you for enrollment in the 6000 to 6099 series of graduate-level foundation courses given below. Using these 6000 to 6099 courses where they are available makes it possible for you to complete the full set of M.B.A. foundation coursework requirements in 44-45 units compared to 61-65 units needed to complete the full set of M.B.A. foundation coursework through equivalent undergraduate coursework.

To be considered for "Classified Graduate" standing in the Master of Business Administration program, you must satisfy the following foundation courses or their undergraduate equivalents as given in the footnotes. (The Executive Option, open to senior executives, requires equivalent preparation and background.)

ACCT 6001 Graduate Introduction to Financial Accounting (4) (Not required if ACCT 2251 and 2252 previously completed, 4-4 units)

ACCT 6002 Graduate Introduction to Managerial and Cost Accounting (4) (Not required if ACCT 3200 and 3230 previously completed, 4-4 units)

CIS 6070 Graduate Introduction to Computer Information Systems (4) (Not required if CIS 3060, or CIS 3270 and 3281, or CIS 3281 and 3282 previously completed, 4 to 8 units)

ECON 3005 Macro-Economic Theory (4)

ECON 6051 Graduate Introduction to Managerial Economics (4) (Not required if ECON 3551 and either ECON 3552 or MGMT 3620 previously completed, 4-4 units)

FIN 6030 Graduate Introduction to Corporate Finance (4) (Not required if FIN 3300 previously completed, 4 units)

MGMT 6000 Graduate Introduction to Quantitative Methods in Business or MGMT 6694 Seminar in Deterministic Techniques of Quantitative Business Methods (4) (MGMT 6694 cannot be counted as part of the 45 units required for the M.B.A.)

MGMT 6020 Graduate Introduction to Production and Operations Management (4) (Not required if ECON 3552 Introduction to Production Economics, or MGMT 3620 previously completed, 4 units)

MGMT 6060 Graduate Introduction to Organization and Management (4) (Not required if two of MGMT 3600, 3614, or 3680 previously completed, 4-4 units)

MGMT 6500 Business and Society (4) (Not required if MGMT 2701 and 4500 previously completed, 4-4 units)

MKTG 6005 Managing Marketing: Theory and Practice (4) (Not required if MKTG 3401 previously completed, 4 units)

Proficiency Evaluations to be satisfied: Mathematics, Statistics, and Writing Skills (WST) (A total of 64-68 units is required to complete this set of foundation coursework common to all options of the M.B.A. degree through using only undergraduate courses. See "Proficiency Evaluations" in this section, Master of Business Administration)

The foundation package is currently under review and may change during the effective dates of this catalog. Changes will be effective when published in the Class Schedule. Please contact the Graduate Director for information about any program changes.

Additional Prerequisites Required for Some Options

Accounting Option (16 units)

- ACCT 3211-12-13 Intermediate Accounting I, II, III (12)
- MGMT 4650 Seminar in Managerial Planning and Control (4) (If MGMT 4650 has not been completed, MGMT 6650. Seminar in Business Policy, must be substituted for MGMT 4650. A 6100-6999 level School of Business and Economics course outside the Accounting prefix is then to be taken as a replacement for MGMT 6650 in the 45 units of the M.B.A. degree.)

Computer Information Systems Option (4 units)

- CIS 3271 COBOL Programming I (4) or any advisor-approved third-generation programming language taken during the last three years. (Students who have no background in programming a computer should consider taking CIS 3270 prior to enrolling in CIS 3271.)

Taxation Option (4 units)

- ACCT 3220 Federal Income Tax Accounting/Individuals (4)

M.B.A. Curricular Requirements

A. Policy on the use of 3000-, 4000-, and unrestricted 6000-level courses in the M.B.A.

Most M.B.A. options restrict the use of 3000-, 4000-, and unrestricted 6000-level courses. You should clear any planned use of upper division undergraduate coursework in the 45 units for your M.B.A. degree with either the graduate option advisor or the SBE Director of Graduate Studies.

B. International Requirement

See "International Requirement" under Common Requirements in this chapter.

C. Core Requirements Except Executive Option (16 units)

MGMT 6100 Quantitative Business Methods or MGMT 6695 Seminar in Probabilistic Techniques of Quantitative Business Methods (4)

MGMT 6110 Business and Economic Forecasting (4)

FIN 6300 Seminar in Financial Management (4)

MGMT 6650 Seminar in Strategic Management (4)

D. Option Requirements

In addition to the four graduate core courses, students must satisfy the requirements of one of the options as outlined below. If a student wishes to have more than one option recorded on the permanent record, the pattern of courses taken by that student to fulfill each additional option must differ by at least 3 courses and 12 units from any other option or combination of options certified for that student. A student will be required to satisfy the terminal exercise of each option completed. The Executive option is a 47 unit package of courses in which there is no separation of core and option requirements.

1. Accounting Option (29 units)

All 45 units of the Accounting Option must be in 6100-6999 level courses that are both beyond the CBK and restricted to "Conditionally Classified" and "Classified Graduate" students.

a. Prerequisites

See previous section on additional prerequisites required for some options.

b. Required Courses (16 units)

ACCT 6211-12 Seminar in Accounting and Auditing Theory I, II (8)

ACCT 6230 Seminar in Strategic Cost Management (4)

ACCT 6261 Accounting Research Methods Seminar I (2)

ACCT 6262 Accounting Research Methods Seminar II (2)

c. Electives Within Accounting (8 units)

Select two courses from the following:

ACCT 4370 International Accounting and ACCT 6250 Seminar in Auditing; one 6100-6999 level Taxation course; one 6100-6999 level School of Business and Economics course outside the ACCT prefix

d. Elective Outside Accounting (4 units)

One 6100-6999 level Computer Information Systems course

e. Capstone Experience (1 unit)

Either (a) complete 1 unit of ACCT 6909 Departmental Thesis, or (b) complete ACCT 6901 Preparation for Comprehensive Exam, plus pass the M.B.A. Comprehensive Examination covering the theory of Accounting and Business Administration. (1)

2. Administration Option (29 units)

a. Required Courses (16 units)

ACCT 6230 Seminar in Strategic Cost Management (4)
MGMT 6550 Research Methods and Communications (4)
MGMT 6612 Seminar in Strategic Human Resources Management or MGMT 6680 Seminar in Labor-Management Relations Administration (4)
MKTG 6420 Seminar in Marketing Policy (4)

b. *Electives Within Administration (12-13 units)*

Select 12-13 units with not more than 9 units under any one prefix from the following:
ACCT 6420 Fundamental of Federal Income Taxation; CIS 6270 Information Systems and Analysis, 6274 Data Base Theory and Administration, 6275 Decision Support Systems, 6276 Data and Voice Communications; ECON 6250 Seminar: Project Analysis, 6400 Seminar: Econometrics; FIN 6310 Seminar in Security Valuation, 6320 Studies in Capital Markets, 6375 Seminar in Multinational Financial Management, 6500 Business and Society;

MGMT 6603 Seminar in Management Decision Making Under Uncertainty, 6612 Seminar in Human Resources Management, 6615 Compensation Administration, 6618 Human Resources Training and Development, 6630 Seminar in Organization Theory, 6635 Managerial Psychology, 6670 Management of the Multinational Firm, 6680 Seminar in Labor/Management Relations Administration, 6693 Seminar in the Fundamentals of Operations Research, 6910 University Thesis (1-5); MKTG 6480 New Venture Management or 6485, New Venture Project Seminar

One Advisor-approved elective

c. *Capstone Experience (0-1 unit)*

Either (a) complete a University Thesis on an administration topic for which up to five units of MGMT 6910 are allowed under Electives within Administration or (b) complete MGMT 6901. Preparation for Comprehensive Exam, plus pass the M.B.A. Comprehensive Examination covering the Theory of Business Administration. (0-1)

3. *Business Economics Option (29 units)*

a. *Required Courses (16 units)*

ECON 6101 Seminar: Micro-Economic Theory I (4)
ECON 6105 Seminar: Macro-Economic Theory (4)
ECON 6400 Seminar: Econometrics (4)
MGMT 6550 Research Methods and Communications (4)

b. *Electives Within Business Economics (4-5 units)*

Select at least one of the following:

ECON 6102 Seminar: Microeconomic Theory II, 6250 Seminar: Project Analysis, 6315 Seminar: Monetary Theory, 6370 Seminar: Public Sector Economics, 6520 Seminar: Industrial Organization and Public Policy, 6680 Seminar: Labor Economics, 6700 Seminar: International Trade, 6710 Seminar: International Development, 6910 University Thesis (1-5)

c. *Electives Outside of Business Economics (8 units)*

Select eight units in 6100-6999 level School of Business and Economics courses outside of Economics.

d. *Capstone Experience (0-1 unit)*

Either (a) complete a University Thesis on an Economics topic for which up to five units of ECON 6910 are allowed under elective courses within Business Economics, or (b) complete ECON 6901 for one unit and pass a M.B.A. comprehensive examination covering Business Economics and Business Administration.

4. *Computer Information Systems Option (29 units)*

a. *Prerequisites*

(See section on additional prerequisites required for some options)

b. *Required Courses (20 units)*

CIS 6270 Analysis of Information Systems (4)

CIS 6274 Data Base Management and Administration (4)

CIS 6275 Decision Support and Expert Systems (4)

CIS 6276 Data and Voice Communications (4)

CIS 6550 Research Methods and Communication in Information Systems (4)

c. *Electives Within Computer Information Systems (4 units)*

Select one:

CIS 6271 Seminar in Current Topics in Information Systems, 6273 Seminar in Audit, Control, and Legal Aspects of Information Systems, 6900 Independent Study (1-4), 6100-6999 level or upper division department-approved course in the field of Computer Information Systems within the School of Business and Economics.

d. *Electives Outside Computer Information Systems (4 units)*

Any 6100-6999 level School of Business and Economics course outside of Computer Information Systems or any other department-approved graduate-level course (including Mathematics and Computer Science) outside Computer Information Systems. MGMT 6621 Seminar in Design/Use of Computer Simulation Models; MM 6101 Mind, Media and Meaning

e. *Capstone Experience (1 unit)*

Either (a) complete 1 unit of CIS 6909 Departmental Thesis, or (b) complete CIS 6901 Preparation for Comprehensive Exam, plus pass the M.B.A. Comprehensive Examination covering the Theory of Computer Information Systems and Business Administration.

5. *Executive Option (47 units)*

Required Courses: (47 units)

ACCT 6700 Managerial Accounting for Executives (4)

ECON 6715 Executive Introduction to Social Philosophy, Ethics, and the History of Economic Thought (5)

ECON 6720 The European Union, Its Institutions, and International Trade (4)

ECON 6725 Money, Banking, and International Finance (5)

ECON 6751 Managerial Economics (4)

FIN 6720 Strategic Corporate Financial Management (5)

MGMT 6700 Global Business and Economic Forecasting, the Economics of Information Technology (4)

MGMT 6710 Management of the Multinational Firm in a Changing World (4)

MGMT 6730 Strategic Human Resources Management (4)

MGMT 6909 Departmental Thesis (2)

MKTG 6705 Strategic International Marketing Research (4)

MKTG 6710 Executive Development Seminar (2)

6. *Finance Option (29 units)*

a. *Required Course (4 units)*

MGMT 6550 Research Methods and Communications (4)

b. *Electives Within Finance (16-17 units)*

Select at least 16 but not over 17 units from the following:

FIN 6305 New Venture Financing, 6310 Seminar in Security Valuation, 6315 Seminar in Options and Futures, 6320 Studies in Capital Markets, 6325 The Financial Management of Banking Institutions, 6375 Seminar in Multinational Financial Management, 6900 Independent Study (1-4), 6910 University Thesis (1-5)

c. *Electives Outside Finance (8 units)*

Select 8 units in 6100-6999 level School of Business and Economics courses outside Finance or any other department-approved coursework outside Finance.

d. *Capstone Experience (0-1 unit)*

Either (a) complete a University Thesis on a Finance topic for which up to five units of FIN 6910 are allowed under Electives within Finance or (b) complete FIN 6901 Preparation for Comprehensive Exam, plus pass the M.B.A. Comprehensive Examination covering the theory of Financial Management and Business Administration.

7. *Human Resources Management (29 Units)*

a. *Required Courses (12 units)*

MGMT 6550 Research Methods and Communications (4)

MGMT 6612 Seminar in Strategic Human Resources Management (4)

MGMT 6680 Seminar in Labor-Management Relations (4)

b. *Electives Within Human Resources Management (8-13 units)*

Select at least 8 but not over 13 units from the following:

MGMT 6615 Compensation Administration, 6618 Human Resources Training and Development, 6630 Seminar in Organization Theory, 6635 Managerial Psychology, 6675 Seminar in International Human Resources Management, 6900 Independent Study (1-4), 6910 University Thesis (1-5)

One course may be selected from the following:

CIS 6270 Information Systems and Analysis; MGMT 3616 Human Resources Evaluation, 4680 Collective Bargaining and Labor Law; PUAD 6850 Human Resource Management in the Public Sector, 6854 Seminar Public Labor Relations; SPCH 4830 Intercultural Communication

c. *Electives Outside Human Resources Management (4-9 units)*

Select at least 4 but not over 9 units in 6100-6999-level School of Business and Economics courses outside HRM or any other department-approved coursework outside HRM.

d. *Capstone Experience (0-1 unit)*

Either (a) complete a University Thesis on a Human Resources Management topic for which up to five units of MGMT 6910 are allowed under Electives within HRM or (b) complete MGMT 6901. Preparation for Comprehensive Exam, plus pass the M.B.A. comprehensive examination covering the theory of HRM and Business Administration. (0-1)

8. *International Business Option (29 units)*

a. *Required Courses (16 units)*

FIN 6375 Seminar in Multinational Financial Management (4)

MGMT 6550 Research Methods and Communications (4)

MGMT 6670 Management of the Multinational Firm (4)

One department-approved, upper division or graduate-level area studies course with an international or regional orientation. The selected course must deal primarily with cultural or social factors, and its principal content should reach beyond the student's native culture and/or geographical region. (4)

b. *Electives Within International Business (12-13 units)*

Select 12-13 units from the following:

ACCT 6470 International Taxation; ECON 6700 Seminar: International Economics or ECON 6710 Seminar: Economic Development; MGMT 6675 Seminar in International Human Resources Management, 6900 Independent Study (1-4), 6910 University Thesis (1-5); MKTG 6470 Seminar in International Marketing Management

c. *Capstone Experience (0-1 unit)*

Either (a) complete a University Thesis on an International Business topic for which up to five units of MGMT 6910 are allowed under Electives within International Business or (b) complete MGMT 6901 Preparation for Comprehensive Exam, plus pass the M.B.A. Comprehensive Examination covering the theory of International Business and Business Administration (0-1)

d. *Recommended:* It is strongly recommended that students who are serious about careers in international agencies, international business, State Department, etc., achieve a proficiency equivalent to at least two years of college-level coursework in at least one language beyond their native tongue.

9. *Management Sciences Option (29 units)*

a. *Required Course (4 units)*

MGMT 6550 Research Methods and Communications (4)

b. *Electives Within Management Sciences (16-17 units)*

Select at least 16 but not over 17 units from the following: Any 6100-6999 level courses offered by the Department of Management and Finance.

c. *Electives Outside Management Sciences (8-9 units)*

Select at least 8 but not over 9 units in 6100-6999 level School of Business and Economics courses (or any other department-approved coursework) outside any field of specialization resulting from selections made under Electives within Management Sciences. A "field of specialization" is defined as 12 or more units of graduate coursework taken in an identifiable professional area within the Department of Management Sciences.

d. *Capstone Experience (0-1 unit)*

Either (a) complete a University Thesis for which up to five units of MGMT 6910 are allowed under "Electives within Management Sciences" or (b) complete MGMT 6901 Preparation for Comprehensive Exam, plus pass the M.B.A. Comprehensive Examination covering the theory of Management Sciences and Business Administration (0-1 unit)

10. *Marketing Management Option (29 units)*

a. *Required Courses (12 units)*

MKTG 6401 Marketing Research (4)

MKTG 6410 Seminar in Consumer Behavior Theory (4)

MKTG 6420 Seminar in Marketing Policy (4)

b. *Select four units from the following (4 units):*

MKTG 6415* Channels of Distribution (2)

6425* Managing the Pricing Function (2)

6435* Integrated Promotion Management (2)

6440* Product Development and Management (2)

c. *Electives Within Marketing Management (4 units)*

Select 4 units from the following:

MKTG 6415* Channels of Distribution (2), 6425 Managing and Pricing Functions,

6435 Integrated Promotion Management, 6440 Product Development and Management, 6450 Seminar in Selected Marketing Topics, 6470 Seminar in International Marketing Management, 6480 New Venture Management or MKTG 6485. New Venture, Project Seminar or MKTG 6490 Graduate Practicum in Small Business Management, 6900 Independent Study (1-4), 6910 University Thesis (1-5)

d. *Electives Outside Marketing Management (8-9 units)*

Select at least 8 units in 6100-6999 level School of Business and Economics courses outside Marketing Management.

e. *Capstone Experience (0-1 unit)*

Either (a) complete a University Thesis on a Marketing Management topic for which up to five units of MKTG 6910 are allowed under electives within Marketing or (b) complete MKTG 6901. Preparation for Comprehensive Exam, plus pass the M.B.A. Comprehensive Examination covering the theory of Marketing Management and Business Administration (0-1)

11. *New Ventures/Small Business Management (NVSBM) Option (29 units)*

a. *Required Courses (12 units)*

MKTG 6480 New Venture Management (4)

MKTG 6485 New Venture Project Seminar (4)

MKTG 6490 Graduate Practicum in Small Business Management (4) (Can be repeated once as an elective if the student has not taken MKTG 4490 or its equivalent as an undergraduate or graduate student.)

b. *Electives Within New Ventures/Small Business Management (17 units)*

Select 17 units with not more than 9 units from any one department from the following: ACCT 6230 Seminar in Strategic Cost Management, 6420 Fundamentals of Federal Income Taxation, ACCT, MGMT, or MKTG 6900. Independent Study (1-4); CIS 6270 Information Systems and Analysis; MGMT 6550 Research Methods and Communications or MKTG 6401, Marketing Research, 6612 Seminar in Human Resource Management, 6615 Compensation Administration, 6635 Managerial Psychology, 6680 Seminar in Labor-Management Relations Administration; MKTG 6420 Seminar in Marketing Policy, 6490 Graduate Practicum in Small Business Management 1, 6910 University Thesis (1-5);

One 6100-6999 level School of Business and Economics course from the list of courses satisfying the Graduate-level International Requirement.

c. *Capstone Experience (0-1 unit)*

Pass the M.B.A. Comprehensive Examination covering the theory of New Ventures/Small Business Management and Business Administration

12. *Operations Research Option (29 units)*

a. *Required Courses (8 units)*

MGMT 6550 Research Methods and Communications or MKTG 6401, Marketing Research (4)

MGMT 6693 Seminar in the Fundamentals of Operations Research (4)

b. *Electives Within Operations Research (8-13 units)*

Select at least 8 but not over 13 units from the following:

MGMT 6603 Seminar in Management Decision Making Under Uncertainty, 6604 Seminar in Quantitative Business Methods Applications, 6619 Seminar in Advanced Techniques of Quantitative Business Methods, 6621 Seminar in the Design and Use of Computer Simulation Models, 6626** Seminar in Management Sciences/Operations

Research, 6640 Seminar in Advanced Operations Management, 6900 Independent Study (1-4), 6910 University Thesis (1-5)

c. *Electives Outside Operations Research (8-13 units)*

Select at least 8 but not over 13 units in 6100-6999-level School of Business and Economics courses outside Operations Research or any other department-approved coursework (including Computer Science, Mathematics, and Statistics) outside Operations Research.

d. *Capstone Experience (0-1 unit)*

Either (a) complete a University Thesis on an Operations Research topic for which up to five units of MGMT 6910 are allowed under Electives within Operations Research or (b) complete MGMT 6901. Preparation for Comprehensive Exam, plus pass the M.B.A. Comprehensive Examination covering the theory of Operations Research and Business Administration (0-1)

13. *Taxation Option (29 units)*

(See section on Additional Prerequisites Required for Some Options)

a. *Required Courses (24 units)*

ACCT 4220 Federal Income Tax Accounting/Corporations and Shareholders (4)

ACCT 6222 Income Taxation of Partners and Partnerships (4)

ACCT 6223 Federal Tax Research, Procedures, and Penalties (4)

ACCT 6224 Advanced Corporate Taxation (4) or ACCT 6227 S Corporations and Advanced Partnership Taxation (4) (If ACCT 6224 is elected, then ACCT 6227 may be chosen as a taxation elective, and vice versa.)

ACCT 6410 Tax Accounting Periods and Methods (4)

ECON 6370 Seminar: Public Finance (4)

b. *Electives Within Taxation (0-2 units)*

Select any 6100-6999 level Taxation coursework.

c. *Electives Outside Taxation (2-4 units)*

Select any 6100-6999 level School of Business and Economics coursework outside Taxation or any other department-approved coursework outside Taxation.

d. *Capstone Experience (1 unit)*

Either (a) complete one unit of ACCT 6909, Department Thesis, or (b) complete ACCT 6901 Preparation for Comprehensive Exam, plus pass the M.B.A. Comprehensive Examination covering the theory of Taxation and Business Administration (1)

M.S. IN BUSINESS ADMINISTRATION

Computer Information Systems/Quantitative Business Methods Option (C.I.S./Q.B.M.)

I. Foundation Coursework (16-17 units)

Students with foundation courses yet to be completed are encouraged to secure "Conditionally Classified Graduate" standing as early as possible. Having "Conditionally Classified Graduate" status qualifies a student for enrollment in the 6000 to 6099 series of graduate-level foundation courses given below. These are faster-moving courses designed for graduate-level students.

In order to be considered for "Classified Graduate" standing in the M.S./Business Administration C.I.S./Q.B.M. option program, a student must satisfy the following foundation courses (21-22 units):

CIS 6070 Graduate Introduction to Computer Information Systems (4) (Not required if CIS 3060 or CIS 3281 previously completed, 4 units)

Complete one programming language course in COBOL, PASCAL, C or other high-level language (4) (For example, CIS 3271 or CS 2360 or CS 2430)

MGMT 6020 Graduate Introduction to Production and Operations Management (4) (Not required if ECON 3552, or MGMT 3620 previously completed, 4 units)

MGMT 6694 Seminar in Deterministic Techniques of Quantitative Business Methods (4) or MGMT 3100 (5)

Proficiency Evaluations to be satisfied: Mathematics, Statistics, and Writing Skills Test (WST) (See the Proficiency Evaluations section under the Master of Business Administration and under the Common Requirements for the M.B.A., M.S. Business Administration, and M.S. Taxation Degrees. The former deals with statistics and mathematics proficiency and the latter with writing skills evaluations.

II. Curricular Requirements (45 units)

A. *Required Courses (36 units)*

CIS 6270 Analysis of Information Systems (4)

CIS 6274 Data Base Theory and Administration (4)

CIS 6275 Decision Support and Expert Systems (4)

CIS 6276 Data and Voice Communication (4)

ECON 6400 Seminar: Econometrics (4)

MGMT 6110 Business and Economic Forecasting (4)

MGMT 6619 Seminar in Advanced Techniques of Quantitative Business Methods (4) or MGMT

6640 Seminar in Advanced Operations Management (4)

MGMT 6621 Seminar in the Design and Use of Computer Simulation Models (4)

MGMT 6695 Seminar in Probabilistic Techniques of Quantitative Business Methods (4) or MGMT

6100 Quantitative Methods (4)

B. *Electives*

Select 8 units in 6100-6999 level School of Business and Economics courses.

C. *Capstone Experience (1 unit)*

Either (a) complete a MGMT 6910 University Thesis or (b) complete MGMT 6901: Preparation for Comprehensive Exam, plus pass a Comprehensive Examination covering Quantitative Business Methods

M.S. IN TAXATION

In addition to the set of Common Requirements for the M.B.A., M.S. Business Administration, and M.S. Taxation degrees described earlier the following specific requirements must be met for the Master of Science in Taxation degree.

Foundation Coursework (45 units)

If you have foundation courses yet to be completed, you are encouraged to secure "Conditionally Classified Graduate" standing as early as possible. Having "Conditionally Classified Graduate" status qualifies you for enrollment in the 6000 to 6099 series of graduate-level foundation courses given below. These are accelerated courses designed for graduate-level students. Using the 6000 to 6099 courses, where they are available, enables you to complete the M.S./Taxation foundation coursework in 45 units compared to the 53-57 units needed if all foundation coursework is met through your equivalent undergraduate coursework.

In order to be considered for "Classified Graduate" standing in the Master of Science in Taxation program, you

must satisfy the following foundation courses or your undergraduate equivalents given in parentheses:

ACCT 3220 Federal Income Tax Accounting/Individuals (4)

ACCT 6001 Graduate Introduction to Financial Accounting (4) (Not required if ACCT 2251 and 2252 previously completed, 4-4 units)

ACCT 6002 Graduate Introduction to Managerial and Cost Accounting (4) (Not required if ACCT 3200 and 3230 previously completed, 4-4 units)

CIS 6070 Graduate Introduction to Computer Information Systems (4) (Not required if CIS 3060, or CIS 3270 and 3281, or CIS 3281 and 3282 previously completed, 4-8 units)

ECON 2301 Principles of Microeconomics or ECON 3551 Managerial Economics or ECON 6051 Graduate Introduction to Managerial Economics (4)

ECON 3005 Macro-Economic Theory (4)

FIN 6030 Graduate Introduction to Corporate Finance (4) (Not required if FIN 3300 previously completed, 4 units)

(Note: A total of 36-40 units is required to complete this set of prerequisites using only undergraduate courses.)

Proficiency Evaluation

Proficiency Evaluation to be satisfied: Writing Skills Test (WST). (See the "Proficiency Evaluations" section under Common Requirements for the M.B.A., M.S. Business Administration, and M.S. Taxation Degrees.)

International Requirement

See the "International Requirement" section under Common Requirements for the M.B.A., M.S. Business Administration, and M.S. Taxation Degrees.

Curricular Requirements (45 units)

Also see the section on Common Requirements for the M.B.A., M.S. Business Administration, and M.S. in Taxation degrees.

A. Required Courses (32 units)

ACCT 4220 Federal Income Tax Accounting/Corporations and Shareholders (4)

ACCT 6222 Income Taxation of Partners and Partnerships (4)

ACCT 6223*** Federal Tax Research, Procedures, and Penalties (4)

ACCT 6224**** Advanced Corporate Taxation (4) or ACCT 6227 S Corporations and Advanced Partnership Taxation (4)

ACCT 6258 Advanced Individual Taxation (4)

ACCT 6410 Tax Accounting Periods and Methods (4)

ECON 6370 Seminar: Public Finance (4)

MGMT 6650 Seminar in Business Policy (4)

B. Elective Courses (12 units)

Select three courses from the following:

ACCT 6224**** Advanced Corporate Taxation, or 6227 S Corporations and Advanced Partnership Taxation, 6226± Seminar in Advanced Topics in Taxation, 6229 Estate/Gift Tax and Income Taxation of Estates and Trusts, 6259 Tax Clinic (1-4), 6470 International Taxation, One advisor-approved 6100-6999-level course in the School of Business and Economics.

C. Capstone Experience (1 unit)

ACCT 6909*** Departmental Thesis (1)

TAXATION CERTIFICATE

The graduate Taxation certificate program is designed to meet the needs of those who wish to focus on taxation courses.

Admission

The program is open to students who hold a baccalaureate degree from an accredited college or university. Admission into the graduate Taxation certificate program requires that at least two of the following standards be met:

1. Satisfactory performance on the Graduate Management Admissions Test (GMAT)
2. Acceptable grade point average on all course work prior to admission into the certificate program;
3. A record of appropriate employment.

Prerequisite Courses (12 units)

(These prerequisite courses may be satisfied through equivalencies.)

ACCT 2251 Principles of Accounting I (4)
ACCT 2252 Principles of Accounting II (4)
ACCT 3220 Federal Income Tax Accounting/Individuals (4)

Curricular Requirements

A. Required Courses (20 units)

ACCT 4220 Federal Income Tax Accounting/Corporations and Shareholders (4)
ACCT 6222 Income Taxation of Partners and Partnerships (4)
ACCT 6223 Federal Tax Research, Procedures, and Penalties (4)
ACCT 6258 Advanced Individual Taxation (4)
ACCT 6410 Tax Accounting Periods and Methods (4)

B. Elective Courses (8 units)

Two of the following, one of which must be ACCT 6224 or ACCT 6227:

ACCT 6224 Advanced Corporate Taxation (4), 6226 Seminar in Advanced Topics and Taxation (4),
6227 S Corporations and Advanced Partnership Taxation (4), 6229 Estate/Gift Tax and Income
Taxation of Estates and Trusts (4), 6470 International Tax (4)

Participants in the program will be required to have a minimum 3.0 grade point average in order to receive the certificate. No grade below a "B" in graduate courses and no grade below a "C" in undergraduate courses can be used in the program. All of the coursework must be completed within five years.

GRADUATE COURSES

Accounting

Restricted to "Classified" and "Conditionally Classified" graduate students

6001 Graduate Introduction to Financial Accounting (4)

Concepts, principles, and procedures of accounting. Preparation and interpretation of financial statements. Uses of accounting information in business decision making. Prerequisite: Either credit for intermediate algebra or a satisfactory score on the Mathematics Placement Test (MPT).

6002 Graduate Introduction to Managerial and Cost Accounting (4)

Applied course with emphasis on managerial uses of cost data for decision making, including regression analysis, theory and procedures of costing for manufacturing firms, and budgeting. Prerequisites: ACCT 6001 or 2252 or equivalent with a grade not lower than "C-", STAT 2010.

6211, 6212 Seminar in Accounting and Auditing Theory I, II (4 units each)

Critical study of the concepts and principles characteristic of accounting and auditing; an examination of alternative theories in the formulation of accounting principles and auditing standards. Courses are sequential. Prerequisites: ACCT 3213, 6002. (6211: F; 6212: Sp)

6222 Income Taxation of Partners and Partnerships (4)

Concepts and principles governing the taxation of partners and partnerships; including the tax effect of formation, partnership agreements, distributions, and dissolutions. Prerequisite: ACCT 3220 or 6420.

6223 Federal Tax Research, Procedures, and Penalties (4)

Methods of researching federal tax issues using LEXIS and other research materials with a focus on case studies. Emphasis on administrative procedures, introduction to the judicial process, and taxpayer and preparer penalties. M.B.A./Taxation and M.S./Taxation students selecting the departmental thesis as their terminal exercise should enroll concurrently in ACCT 6909. Prerequisite: ACCT 3220 or 6420.

6224 Advanced Corporate Taxation (4)

Corporate liquidations, redemptions, reorganizations, carryovers of tax attributes, personal holding companies, accumulated earnings tax, collapsible corporations, consolidated returns, and employee compensation plans. Prerequisite: ACCT 4220 or 6420 or consent of instructor.

6226 Seminar in Advanced Topics in Taxation (4)

Selected topics include state and local taxation, deferred compensation, and important tax areas which have undergone recent legislative, regulatory, or judicial change or development. May be repeated for credit with consent of department. Prerequisite: ACCT 3220 or 6420 or consent of instructor.

6227 S Corporations and Advanced Partnership Taxation (4)

Concepts and principles governing the taxation of S corporations and S shareholders; including the tax effect of formation, operations, distributions, and liquidations. Selected advanced partnership issues.

6229 Estate/Gift Tax and Income Taxation of Estates and Trusts (4)

Taxation of beneficiary, estate, gift, and related tax treatment of fiduciary entity. Focus on estate tax planning. Prerequisite: ACCT 3220 or 6420.

6230 Seminar in Strategic Cost Management (4)

Management control systems including operational auditing, preparation and administration of budgets, quantitative analysis of special cost and managerial problems, cost problems in not-for-profit organizations. Prerequisites: ACCT 6002 and CIS 6070, or consent of department.

6250 Seminar in Auditing (4)

Standards and procedures in auditing. Analysis of the interrelationship of audit standards, ethics, and procedures. Not open to students who have credit for an undergraduate or graduate course in auditing. Prerequisite: ACCT 3213 or equivalent.

6258 Advanced Individual Taxation (4)

Property transactions, alternative minimum tax, passive gains and losses, interest expense, and tax credits. Prerequisite: ACCT 3220 or 6420.

6259 Tax Clinic (1-4)

Students will represent taxpayers before the IRS in routine office audit cases. Instructor will provide individual supervision throughout the audit process. May be repeated twice for credit with the approval of the department. Prerequisites: consent of instructor and ACCT 3220 or 6240.

6261, 6262 Accounting Research Methods Seminar I, II (2 units each)

Accounting research methods including role and nature of research, data sources, problem formulation, research design, data collection, writing of accounting research paper. Prerequisites: ACCT 6211, CIS 6070.

Recommended for 6162: concurrent enrollment in ACCT 6909 for students using the Departmental Thesis for their terminal exercise.

6410 Tax Accounting Periods and Methods (4)

Cash and accrual methods, startup and organization costs, installment sales, accounting periods and the appropriate tax year end, inventory methods including the uniform capitalization rules, original issue discount, bad debt reserves, and FASB 109. Prerequisite: ACCT 3220 or 6420.

6420 Fundamentals of Federal Income Taxation (4)

Federal income taxation concepts applicable to individuals, corporations, partnerships. Gross income, deductions, credits, property transactions, tax accounting methods. Rules governing formation, operation, disposition of partnerships/corporations. Not open to students in M.B.A. option in Taxation or M.S. Taxation. Prerequisite: ACCT 6001 or equivalent.

6470 International Taxation (4)

U.S. taxation of foreign source income, controlled foreign corporations/subpart F, foreign sales corporations, foreign tax credits, and provisions used to reduce offshore tax deferral. Limited discussion of U.S. taxation of non-residents/foreign corporations. Prerequisites: ACCT 6420, or ACCT 3220 and 4220.

6700 Managerial Accounting for Executives (4)

The managerial use of cost data for decision-making including the latest development in activity based cost accounting and its implications for financial planning and budgeting. Prerequisite: graduate standing.

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 4 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA, departmental approval of activity. CR/NC grading only. (A)

6900 Independent Study (1-4)**6901 Preparation for Comprehensive Exam (1)**

Preparation emphasizing achieving clear understanding of basic concepts and a synthesis and critical analysis of theory and practice within student's specialty and Business Administration. Credit assigned after exam passed. CR/NC grading only. Prerequisite: minimum of 32 units applicable to the degree completed prior to exam. (F, Sp)

6909 Departmental Thesis (1)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Maximum of one unit per student. Should be taken concurrently with ACCT 6223 or 6260 by students using ACCT 6909 for their terminal exercise. Prerequisite: "Conditionally Classified Graduate" standing.

6915 Graduate Internship in Accounting (1-4)

Supervised work/educational experience with a company, CPA firm, non-profit organization, or governmental

agency in a department-approved program for graduate students. May be repeated once for credit. Prerequisites: vary according to agency or firm.

Computer Information Systems

6070 Graduate Introduction to Computer Information Systems (4)

Oriented toward computer user. Planning, developing, implementing computer information systems including problem definition, feasibility study, alternative solutions, cost-benefit analysis, hardware/software selection. Computer-based solutions to business problems. Closed to students with credit for CIS 3060, or 3281 or 3282.

6270 Analysis of Information Systems (4)

Theory and practice of information systems and systems development, the components of information systems and the role of the analyst in the organization. Prerequisite: CIS 6070.

6271 Seminar in Current Topics in Information Systems (4)

Selected topics dealing with design, installation, control, and communication problems relevant to the total management information systems environment. May be repeated for credit with consent of department. Prerequisite: CIS 6270 or consent of instructor.

6273 Seminar in Audit, Control, and Legal Aspects of Information Systems (4)

Audit standards, techniques, and types of controls; risk assessment; role of the internal and external auditor in information systems auditing. Computer abuse, ethics, privacy, and security. Legal considerations including contracts, copyrights, patents, and legislation. Prerequisites: ACCT 6001, CIS 6070.

6274 Data Base Theory and Administration (4)

Role of data base administrator in managing data resources. Conceptual frameworks for selecting, implementing, maintaining commercial data base management packages. Data structures, data dictionaries, security, distributed data bases. Current technologies, future directions. Prerequisites: CIS 3271, 6270, or consent of instructor.

6275 Decision Support and Expert Systems (4)

Theory and practice of decision support and expert systems. Topics include the formulation, development, application, analysis and design of decision-oriented and knowledge-based systems, with appropriate hands-on projects. Prerequisite: CIS 6270.

6276 Data and Voice Communication (4)

Voice and computer communication facilities used in business. Network design and operation including common carriers, transmission technologies, protocols, and standards. Integration of voice and data communication and computing technologies. Prerequisite: CIS 6270.

6550 Research Methods and Communication in Information Systems (4)

Application of scientific research methods to CIS research projects. Topics include identifying research projects, formulating hypotheses, developing a theoretical framework, methods of conducting research, sample selection, data collection and analysis and report writing. Prerequisite: CIS 6270 and concurrent enrollment in CIS 6909 recommended for students using departmental thesis as their terminal exercise.

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 4 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA, departmental approval of activity. CR/NC grading only. (A)

6900 Independent Study (1-4)

6901 Preparation for Comprehensive Exam (1)

Preparation emphasizing achieving clear understanding of basic concepts and a synthesis and critical analysis of theory and practice within student's specialty and Business Administration. Credit assigned after exam passed. CR/NC grading only. Prerequisite: minimum of 32 units applicable to the degree completed prior to exam. (F, Sp)

6909 Departmental Thesis (1)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Maximum of one unit per student. Prerequisite: "Conditionally Classified Graduate" standing.

Economics

See graduate [Economics chapter](#) for list of Economics courses.

Finance

6030 Graduate Introduction to Corporate Finance (4)

Theory of decision making in the process of financial management of enterprise resources including asset investment, budgeting, leverage, capital structure, and the capital asset pricing model. Prerequisites: ACCT 3200 or 6002 or consent of instructor.

6300 Seminar in Financial Management (4)

Research, analysis, and reporting of contemporary problems that affect the financial policy decisions of the business firm. Theory and practice of investment and financial decision-making supplemented with selected case analysis. Prerequisites: FIN 6030, MGMT 6550, and MGMT 3100 or 6000 or 6694 or equivalent. (A)

6305 New Venture Financing (4)

Concepts and practices of financing a new venture or expansion of an existing small business. This will include topics such as valuation, financial planning, corporate structuring, exit strategies, private placement, initial public offerings and venture capital. Prerequisites: FIN 6300, MGMT 6550.

6310 Seminar in Security Valuation (4)

Concepts of corporate security valuation in organized markets: theory and practice. Portfolio theory, management, and performance measurement. Prerequisites: FIN 6300 and MGMT 6550. (F, W, Sp)

6315 Seminar in Options and Futures (4)

Emphasis on investment strategies involving the use of options and futures for both individual investors and corporate financial managers. Prerequisites: FIN 6300, MGMT 6550.

6320 Studies in Capital Markets (4)

Studies of the role of financial intermediation in the economy: the financial management of financial institutions; the interrelations between the suppliers of credit and capital markets. Prerequisites: ECON 3005, FIN 6030, MGMT 6550.

6325 The Financial Management of Banking Institutions (4)

Application of management science methodology to financial management alternatives in the goal-attainment behavior of banking institutions, within prescribed endogenous and exogenous policies. Prerequisites: consent of instructor and MGMT 6550.

6375 Seminar in Multinational Financial Management (4)

Financial management of multinational corporations with reference to international variables that affect the value of the firm with particular emphasis on the management of financing, investment and international risks including foreign exchange management, project evaluation, investment incentives, application of financial

theories in the pricing of international assets and effects of international diversification. Prerequisites: FIN 6300, MGMT 6550.

6720 Strategic Corporate Financial Management (5)

Analysis and evaluation of managerial issues and problems affecting financial decision-making in a corporation; corporate goals and linkages with financial strategy and corporate policy formulation; strategic planning and control; case studies. Prerequisite: graduate standing.

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 8 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA, departmental approval of activity. CR/NC grading only. (A)

6900 Independent Study (1-4)

6901 Preparation for Comprehensive Exam (1)

Preparation emphasizing achieving clear understanding of basic concepts and a synthesis and critical analysis of theory and practice within student's specialty and Business Administration. Credit assigned after exam passed. CR/NC grading only. Prerequisite: minimum of 32 units applicable to the degree completed prior to exam.

6910 University Thesis (1-5)

Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: classified graduate standing and advisor approval. Maximum of 5 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)

Management Sciences

6000 Graduate Introduction to Quantitative Methods in Business (5)

Graduate level survey of linear programming, transportation models, CPM/PERT, deterministic inventory models, and decision analysis. Emphasis on problem formulation and applications. Use of appropriate computer software. Prerequisites: CIS 6070, MATH 1820, STAT 2010. Four hrs. lect., 2 hrs. act.

6020 Graduate Introduction to Production and Operations Management (4)

Selected topics in production/operations management in manufacturing and service enterprises; organizational structure of production systems, resource/process planning, inventory/quality control, international operations, quantitative methods/computer applications. Closed to students with credit for ECON 3552, or MGMT 3620. Prerequisite: MGMT 3100 or 6000. Recommended: MGMT 6060.

6060 Graduate Introduction to Organization and Management (4)

The process of management as it applies to the various functional areas including research and development, finance, production, human resources management, marketing, and controllership. Consideration of current theory and applications, individual and group behavior in the organization. Strong emphasis on verbal and written communication skills to be demonstrated through graded exercises, papers, and presentations.

6100 Quantitative Business Methods (4)

A survey of simulation, queuing models, dynamic programming, and probabilistic inventory models. Emphasis on problem formulation and applications. Prerequisites: MGMT 6000 or 6694, MGMT 6550, and Mathematics and Statistics proficiencies satisfied. (A)

6110 Business and Economic Forecasting (4)

Survey of major methods of short- and long-range forecasting for national economy, industry, or firm; emphasis on applications and evaluation. Prerequisites: ECON 3005, 6051; MGMT 6000 or 6694; MGMT 6060, 6550,

equivalents, or consent of instructor. (A)

6500 Business and Society (4)

The relationship of business to society and government; the American legal system and legal reasoning; business law issues, antitrust policy, ethics, social responsibility; regulatory agencies, deregulation, self-regulation. Closed to students with credit for MGMT 4500. Prerequisites: ECON 3005, 6051; MGMT 6060.

6550 Research Methods and Communications (4)

Methods of business research including the role and nature of research, sources of data, problem formulation, research design, data collection, and report writing. To be taken at beginning of M.B.A./Finance, Management, or Business Economics program. Prerequisites: all foundation coursework. (A)

6603 Seminar in Management Decision Making Under Uncertainty (4)

Topics in management decision making under uncertainty including utility, risk, and decision trees. Emphasis on problem formulation and use of computer programs. Selected case studies from business and government.

Prerequisites: MGMT 6550, 6695; or 6100 and consent of instructor. (F)

6604 Seminar in Quantitative Business Methods Applications (4)

A seminar, case study course which will examine in detail applications of quantitative business methods in various areas. Prerequisites: MGMT 6550, 6619, 6620, 6621; or MGMT 6100 and consent of instructor.

6612 Seminar in Strategic Human Resources Management (4)

Seminar in strategic human resources management from the perspective of human resources professionals and general managers. Focus on how firms use human resource functions, such as recruitment and selection, training and development, performance management, compensation and benefits, to gain a competitive advantage.

Prerequisites: MGMT 6550, 6060 or consent of instructor.

6615 Compensation Administration (4)

Current theory, law, and practice in wage, salary, and benefits administration. Not open to students having credit for MGMT 4615 or equivalent. Prerequisites: ECON 6051, MGMT 6060, and 6550.

6618 Human Resources Training and Development (4)

Focus on the systems approach to human resources training and development. Topics include needs assessment, learning theories, instructional design, training methodologies, presentation techniques, and program evaluation. Students will design and present sample training and development programs. Not open to students having credit for MGMT 4610 or equivalent. Prerequisites: MGMT 6060 and 6500.

6619 Seminar in Advanced Techniques of Quantitative Business Methods (4)

Seminar topics in mathematical programming and network models. Prerequisites: MGMT 6550, 669; STAT 3401.

6621 Seminar in the Design and Use of Computer Simulation Models (4)

The design and use of computer simulation models, including topics in randomization, comparison of simulation languages, and the design and analysis of simulation experiments. Prerequisites: MGMT 6550, 6695, or 6100 and consent of instructor.

6626 Seminar in Management Sciences/Operations Research (4)

The seminar will examine recent developments in operations research and management science. Topics will be chosen by the instructor and course participants. May be repeated for credit with approval of instructor.

Prerequisites: MGMT 6550, 6695, or 6100 and consent of instructor.

6630 Organization Theory (4)

The study of how organizations function and how they affect and are affected by the people and the society in which they operate. The focus of the course will be on the process by which managers select and manage aspects of structure and culture so that an organization can control those activities necessary to achieve its goals.

6635 Managerial Psychology (4)

A seminar on using psychological techniques to enhance managerial creativity and effectiveness. Participants are required to fully participate in all exercises and weekly assignments.

6640 Seminar in Advanced Operations Management (4)

Modern techniques in total quality management, location planning, aggregate planning, inventory management, and operations scheduling. Emphasis on problem solving and use of computer software. Prerequisite: MGMT 6020, or 3620 and 4640.

6650 Seminar in Strategic Management (4)

Complex business situations (cases) from the perspectives of top executives who have the responsibility for managing the strategic processes of an entire business. Designed to integrate the expertise developed in previous courses into strategic leadership. Prerequisites: all foundation coursework, MGMT 6550, and the completion of at least 32 of the 45 units of the graduate program.

6670 Management of the Multinational Firm (4)

A study of the operation of multinational firms in terms of marketing, finance, accounting, production, and personnel policies using case studies and current readings. Prerequisites: MGMT 6550 and consent of instructor.

6675 Seminar in International Human Resources Management (4)

Seminar on how multinational firms use human resource functions, such as recruitment and selection, training and development, performance appraisal, compensation and benefits, to compete internationally. Focus on international and comparative labor-management relations and management of multicultural teams. Prerequisite: MGMT 6060, 6500 and 6550.

6680 Seminar in Labor-Management Relations Administration (4)

Research, analysis, reporting and discussion of selected topics in labor-management relations, such as contract negotiations, grievance procedures, and governmental involvement and regulations. Prerequisite: MGMT 6060 or equivalent and MGMT 6550.

6693 Seminar in the Fundamentals of Operations Research (4)

Seminar in the philosophy and application of Operations Research methods for modeling and decision making. Emphasis on the role of Operations Research in the managerial functions. Prerequisites: C S 1700 or CIS 2270; MATH 1820 or 2304; MGMT 6550; or consent of instructor.

6694 Seminar in Deterministic Techniques of Quantitative Business Methods (4)

Seminar in the techniques of linear programming, network models, deterministic inventory and production models, and deterministic dynamic programming. Prerequisites: MATH 2304, C S 1020, 1031 or CIS 2270; or consent of instructor.

6695 Seminar in Probabilistic Techniques of Quantitative Business Methods (4)

Seminar in the techniques of probabilistic inventory and production models, probabilistic dynamic programming, simulation, queuing models, Markov Chains and decision analysis. Prerequisite: MGMT 6550, 6694; STAT 3401. (W)

6700 Global Business and Economic Forecasting, The Economics of Information Technology (4)

A comprehensive review of major state-of-the-art methods and techniques of international business forecasting. Computer simulations and strategic decision analysis for corporate planning. The evaluation and analysis of international economic and political long-and-short-range trends in information technology. The economics of information superhighways. Prerequisite: graduate standing.

6710 Management of the Multinational Firm in a Changing World (4)

An in-depth global competitive analysis of the economic and legal environment of international business. Host country interests and corporate strategies for international growth in rapidly shifting structures. Single-nation

cases versus multi-nation case. The role of parent-subsidizing relationships. Prerequisite: graduate standing.

6730 Strategic Human Resource Management (4)

Current practices and law in strategic human resource management. Human resource management's role in strategy formulation and implementation and its contribution to competitiveness. International human resource management employment laws emphasizing functional areas such as planning, recruiting, selection, training, evaluation, and salary and benefits administration. Prerequisite: graduate standing.

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 8 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA, departmental approval of activity. CR/NC grading only. (A)

6900 Independent Study (1-4)

6901 Preparation for Comprehensive Exam (1)

Preparation emphasizing achieving clear understanding of basic concepts and a synthesis and critical analysis of theory and practice within student's specialty and Business Administration. Credit assigned after exam passed. CR/NC grading only. Prerequisite: Minimum of 32 units applicable to the degree completed prior to exam.

6909 Departmental Thesis (2)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a faculty committee at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing.

6910 University Thesis (1-5)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: "Classified Graduate" standing and advisor approval. Maximum of 5 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)

Marketing

6005 Managing Marketing: Theory and Practice (4)

Theories, principles, concepts, practices, and tools of marketing analysis. Emphasis on theoretical concepts and their practical applications through marketing decision-making in a simulated business environment and/or through case analysis. Prerequisite: post-baccalaureate status.

6401 Marketing Research (4)

Survey research design and analysis, design of experiments, managerial applications of multivariate analysis including introduction to multi-dimensional scaling and to cluster, discriminant, and factor analysis. Computer software applications. Prerequisites: MKTG 3401, 4445; MGMT 6000; and STAT 2010; recommended: MGMT 6110. (Sp)

6410 Seminar in Consumer Behavioral Theory (4)

Topics selected from motivation, perception, cognition, and learning processes affecting household and industrial consumer behavior; cultural, social class, and reference group influences; attitude measurement; effective market communication. Prerequisite: MKTG 3401 or equivalent.

6415 Channels of Distribution (2)

Selecting and managing distribution channels emphasizing placement of new and existing products. Lecture and case analysis. Prerequisites: MKTG 6005, 6401, 6410.

6420 Seminar in Marketing Policy (4)

Advanced case analysis seminar applying marketing and organization theory to marketing decision-making; dealing with individual elements of the marketing mix, their integration into a balanced marketing plan, and the implementation of the plan with appropriate controls. Prerequisite: MGMT 6060 or equivalent and MKTG 3401 or equivalent; recommended: MKTG 6401.

6425 Managing the Pricing Functions (2)

Analytical approach for making pricing decisions for new and existing product lines. Lectures and case analysis. Assignments emphasize practical "hands-on" experience in making pricing decisions. Prerequisites: MKTG 6005, 6401, 6410; ACCT 6002 or equivalent; ECON 6501 or equivalent.

6435 Integrated Promotion Management (2)

All aspects of promotion management including advertising, sales promotion, personal selling and public relations. Lectures and case analysis. Prerequisites: MKTG 6005, 6401, 6410.

6440 Product Development and Management (2)

Analytical approach for designing new products and management of existing products. Lectures and case analysis. Assignments emphasize "hands-on" experience in product management. Prerequisites: MKTG 6005, 6401, 6410.

6450 Seminar in Selected Marketing Topics (4)

Investigation of a particular topic area as defined by the instructor. May be repeated for credit with approval of the department. Prerequisites: MKTG 3401 or equivalent; recommended: MKTG 6401 and 6410.

6470 Seminar in International Marketing Management (4)

Global view of potential markets under varying economic, political, and social systems; development of organizational structures, strategies, and control systems appropriate to international marketing; integration with domestic operations; worldwide consumerism; business ethics. Prerequisite: MKTG 3401; recommended: MGMT 4670 or 6670.

6480 New Venture Management (4)

Topical coverage of key decision and control areas in establishing and managing new enterprises. Cases, class reports, resource speakers. Prerequisites: ACCT 6001, FIN 6030, MGMT 6060, and MKTG 3401.

6485 New Venture Project Seminar (4)

Term projects involving feasibility research and completion of business plans for new ventures, in-process class discussion of projects and assigned readings. Prerequisites: ACCT 6001, FIN 6030, MGMT 6060, and MKTG 3401; strongly recommended: MKTG 6480. (Sp)

6490 Graduate Practicum in Small Business Management (4)

Student consultants assisting small businesses; reviewing performance, isolating problems, researching solutions, presenting analyses, preparing reports. May be repeated once if MKTG 4490 or equivalent never taken. Prerequisites: ACCT 6001, ECON 6051, FIN 6030, MGMT 6000, MGMT 3401; recommended: MKTG 6480.

6705 Strategic International Marketing Research (5)

Near real-life experience developing international marketing research and strategy, based on a program-core competitive business simulation, played by "company" teams throughout the Executive M.B.A. option. Concluding "post-mortem" of own and competitors' performances completed during a terminal exercise at Cal State Hayward. Prerequisite: graduate standing.

6710 Executive Development Seminar (2)

One-week course on the Cal State Hayward campus including presentation of final reports on marketing simulation, concluding seminar, and corporate visitations. Prerequisite: graduate standing.

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 8 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA, departmental approval of activity. CR/NC grading only. (A)

6900 Independent Study (1-4)

6901 Preparation for Comprehensive Exam (1)

Preparation emphasizing achieving clear understanding of basic concepts and synthesis and critical analysis of theory and practice within student's specialty and Business Administration. Credit assigned after exam passed. CR/NC grading only. Prerequisite: minimum of 36 units applicable to the degree completed prior to exam. (F, Sp)

6910 University Thesis (1-5)

Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisites: "Classified Graduate" standing and advisor approval. Maximum of 5 units per student. (See also "University Thesis Writing Guide," available in WA 859.) (A)

* Course may be used as an elective if it was not taken as a required course.

** May be repeated for credit with approval of the department.

*** Students should enroll concurrently in ACCT 6223 and 6909.

**** If ACCT 6224 is selected, then ACCT 6227 may be chosen as a taxation elective, and vice versa.

+ ACCT 6226 may be repeated for credit with consent of the department.

Chemistry [CHEM]

- [M.S. IN CHEMISTRY](#)
- [OPTION IN BIOCHEMISTRY](#)
- [GRADUATE COURSES](#)

CHEMISTRY

Department of Chemistry
School of Science
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Professor Emeritus:

Donald L. Peterson

Professors:

Richard E. Bozak, Kevin D. Cadogan, Leroy Chauffe (Chair), Edward E. Genser, Michael K. Leung, Richard T. Luibrand, Richard S. Monson, Charles T. Perrino, Larry G. Scheve, John C. Shelton

Associate Professor:

Ann A. McPartland

Graduate Coordinator:

Charles T. Perrino

M.S. IN CHEMISTRY

Program Description

The Master of Science degree in Chemistry mainly serves students in one of four categories: those seeking opportunities in the chemical industry requiring training beyond the baccalaureate level, fully employed chemists who wish to enhance their career potential, future teachers of high school or community college chemistry, and graduates contemplating subsequent study at the Ph.D. level.

Because the program is relatively small at the present time, all qualified applicants are currently accepted. Applicants may select either a general option permitting emphasis in any area of chemistry or an option in biochemistry. At present, enrollment is about the same in both options. To make the program more accessible to employed students, most required courses are offered in the evening.

Program Options

Within the general Chemistry option, candidates may pursue either Plan A, which requires a University Thesis, or Plan B, which entails passing a comprehensive examination over all coursework applied to the degree. The Biochemistry option requires a University Thesis, but candidates may also elect to concentrate in biochemistry under Plan B of the general option.

Faculty

The faculty of the department numbers eleven, each holding the Ph.D. degree, of whom two are biochemists. Most came to Cal State Hayward with postdoctoral experience either in academia or industry, or both. Added breadth of experience is provided by occasional visiting lecturers in graduate lecture courses.

Facilities

The laboratories are modern and well equipped. Major instrumentation includes continuous-wave proton and fourier-transform C-13 nuclear magnetic resonance spectrometers, capillary gas chromatographs with both flame-ionization and mass-spectral detection, a fourier-transform infrared spectrophotometer, an atomic absorption spectrophotometer with graphite furnace and cold vapor attachments, and a diode-array visible-ultraviolet spectrophotometer used alone or as a detector for stopped-flow kinetics studies. Electron microscopy including scanning electron microscopy is available through the Department of Biological Sciences and x-ray analysis, including x-ray fluorescence spectroscopy, through the Department of Geological Sciences. The department has a variety of computers and associated software including a silicon graphics system.

The department is served by an office staff of a department secretary and a part-time clerical assistant, and by a staff of four full-time technicians and one part-time person.

Additional Information

The masters' degree program is under the nominal direction of the graduate coordinator, with the participation of the department's Graduate Studies Committee. All inquiries should be directed to the graduate coordinator or to the department chair.

Admission Requirements

The basic requirements for entry in the program are possession of a baccalaureate degree major equivalent to that at Cal State Hayward and an upper division GPA of at least 2.6 in upper division courses in chemistry and biochemistry. The equivalent major for the three tracks, Plan A, Plan B, and the Biochemistry Option are the B.S. Major in Chemistry, B.A. Major in Chemistry, General Option, and B.A. Major Option in Biochemistry, respectively. Applicants not meeting the GPA requirement may still be accepted subject to receipt of acceptable letters of recommendation; the G.R.E. is not required.

Qualified applicants are accepted in "Conditionally Classified Graduate" status and must pass placement tests in organic, physical, and one of analytical, inorganic, or biochemistry; remove any deficiencies in the undergraduate major, complete 12 units applicable to the degree, and pass the University Writing Skills Graduation Test to become fully "Classified Graduate" students. Applicants not having an undergraduate major in chemistry may be accepted in the program depending on the amount of undergraduate coursework required to remove deficiencies.

Plan A, Thesis

A University Thesis is required both in Plan A and in the Biochemistry Option. A thesis topic is decided by mutual agreement between a graduate student and an appropriate faculty member.

On-Site Research

Candidates whose employers permit the use of appropriate facilities and approve the release of the applicable findings may arrange to conduct research on their employers' premises in support of their M.S. theses, subject to prior approval by the department.

Plan B, Comprehensive Examination

Plan B entails the completion of additional specified coursework in lieu of a thesis and completion of a significant literature search and report on a selected topic. Applicants must pass a comprehensive examination which consists of an oral portion covering the report of the literature search and a written portion covering all other coursework applied to the degree.

Required Coursework

Units are specifically required in courses covering thermodynamics, the chemical bond, and advanced topics in other areas. Plan B additionally requires courses in instrumental analysis and the chemical literature. The total 45 units are rounded out by approved upper division courses in chemistry, biochemistry, biology, and occasionally other subjects in science or mathematics.

Advancement to Candidacy

In order to progress in the program, a student must pass or obtain a waiver for the placement exams. A waiver is usually obtained by enrolling in an undergraduate course covering appropriate material. The exams must be completed within one year of entry into the Department of Chemistry. Additionally, students must pass the Writing Skills Test and qualify for "Classified Graduate" status within two years of admission.

Advancement to Candidacy requires that the student complete 12 units in 6000-level courses applicable towards the degree with an average grade of 3.0 or better and select a research advisor for the thesis or a supervisor for the Plan B literature search and comprehensive examination.

General Chemistry Option Requirements

(Plan A or Plan B must be selected)

Plan A, Thesis

In order to be eligible for the degree, the student must satisfy the following departmental requirements:

1. Complete a total of 22 units in required courses in Chemistry comprising the following:
CHEM 4521 Elements of Chemical Thermodynamics (4)
CHEM 6521 The Chemical Bond (3)
CHEM 6820 Seminar (1,1,1)
CHEM 6830 Research (6)
CHEM 6850 Methods of Graduate Research (3)
CHEM 6910 University Thesis (3)
2. Complete a minimum of nine units from the Advanced Topics courses 6110, 6310, and 6510
3. Complete additional units to total the minimum 45 units required-to be selected, with the approval of the student's advisor, from additional graduate courses in chemistry. These units must be selected from the list of upper division courses in chemistry acceptable for the master's degree and must not include more than four units of 6900 and three units of 6830. A maximum of six units from applicable courses in related fields may be included (e.g., in physics, geological sciences, or mathematics), and additional units must be taken to replace any courses in (1) or (2) above taken as an undergraduate
4. Submit to the department an acceptable master's degree thesis (University Thesis, CHEM 6910)

Upper Division Chemistry Courses Acceptable for the Master's Degree

A maximum of 15 units may be chosen from this category: all choices must be approved by the candidate's advisor.

CHEM 4110 Introduction to Geochemistry, 4162 Advanced Inorganic Chemistry, 4310 Qualitative Organic Analysis, 4311 Advanced Organic Chemistry 4330 Synthetic Organic Methods, 4340 Physical Organic

Chemistry, 4411, 4412 General Biochemistry, 4420 Advanced Biochemistry, 4430 General Biochemistry Laboratory, 4700 Survey of Chemical Literature

Plan B, Comprehensive Examination

In order to be eligible for the degree, the student must satisfy the following departmental requirements:

1. Complete a total of 21 units in the following required Chemistry courses:
CHEM 4240 Instrumental Methods of Analysis (4)
CHEM 4521 Elements of Chemical Thermodynamics (4)
CHEM 4700 Survey of Chemical Literature (2)
CHEM 6521 The Chemical Bond (3)
CHEM 6820 Seminar (1, 1, 1)
CHEM 6850 Methods of Graduate Research (3)
CHEM 6901 Comprehensive Review (2)
2. Complete a minimum of 12 units from the Advanced Topics courses 6110, 6310, 6410 and 6510
3. Complete additional units to total the minimum required 45 to be selected, with the approval of the student's advisor, from additional graduate courses in chemistry (to include no more than two units of 6900 and none of 6830 or 6910), from the lists of upper division courses in chemistry acceptable for the master's degree (including those acceptable for the biochemistry option, see below), up to a maximum of 12 units in applicable courses in related fields, and additional units to replace any courses in (1) or (2) above taken as an undergraduate
4. Pass a comprehensive examination consisting of a written portion covering the courses taken and an oral portion covering the content of CHEM 6901.

Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

OPTION IN BIOCHEMISTRY

To be eligible for the Option in Biochemistry, M.S. in Chemistry, the student must satisfy the following departmental requirements:

1. Complete the following required courses in biochemistry and chemistry (22 units):
CHEM 6410 Advanced Topics in Biochemistry (3)
CHEM 6430 Protein Chemistry Techniques (4)
CHEM 6820 Seminar (1, 1, 1)
CHEM 6830 Research (Biochemistry Specialization) (6)
CHEM 6850 Methods of Graduate Research (3)
CHEM 6910 Thesis (Biochemistry Specialization) (3)
2. Complete a minimum of six units from the following courses:
CHEM 4521, 6110, 6310, 6410, 6521 including at least one of CHEM 4521 and 6521
3. Complete additional units to total the minimum 45 units required-to be selected, with the approval of the student's advisor, from additional graduate courses in chemistry and biochemistry. These units must be selected from the list of upper division courses in chemistry acceptable for the master's degree, Option in Biochemistry, and must not include more than four units of 6900 and three units of 6830. A maximum of eight units from applicable courses in Biological Sciences may be selected from the following:

BIOL 4120 Radiation Biology (4)
BIOL 4450 Cell Culture Techniques (4)
BIOL 6140* Recombinant DNA Techniques (4)
BIOL 6151-52 Cell Biology (4, 4)

Additional units must be selected to replace any courses in (1) and (2) above taken as an undergraduate

4. Submit to the department an acceptable master's degree thesis (University Thesis, CHEM 6910).

Upper Division Chemistry Courses Acceptable for the Biochemistry Option, Master's Degree in Chemistry
CHEM 3531, 3532 Physical Chemistry Laboratory; 4161, 4162 Advanced Inorganic Chemistry; 4180 Inorganic Chemistry Laboratory, 4240 Instrumental Methods of Analysis, 4310 Qualitative Organic Analysis, 4311 Advanced Organic Chemistry, 4330 Synthetic Organic Methods, 4340 Physical Organic Chemistry, 4700 Survey of Chemical Literature

GRADUATE COURSES

6110 Advanced Topics in Inorganic Chemistry (3)

Selected topics in inorganic chemistry, e.g., coordination chemistry, ligand field theory, solid state chemistry, and group theory applied to chemistry. May be repeated for maximum of 9 units credit. Prerequisite: 1 year physical chemistry. (Y)

6140 Recombinant DNA Techniques (4)

(See [BIOL 6140](#) for course description.)

6310 Advanced Topics in Organic Chemistry (3)

Selected topics in special advanced fields of organic chemistry. Topics vary each quarter. May be repeated for maximum of 9 units credit. Prerequisite: CHEM 4311 or consent of instructor. (Y)

6321 Aqueous Geochemistry (4)

(See [GEOL 6321](#) for course description.)

6410 Advanced Topics in Biochemistry (3)

Selected topics in biochemistry, e.g., advanced discussion of proteins, enzyme kinetics, physical biochemical techniques, nucleic acid chemistry. May be repeated for a maximum of six units. Prerequisite: CHEM 4420 or consent of instructor. (Y)

6430 Protein Chemistry Techniques (4)

Techniques in protein chemistry. Methods for protein quantitation, separation, identification, purification and sequence analysis. Emphasis on modern procedures employing techniques such as chromatography, electrophoresis, isoelectric focusing, gene splicing and immunological probing. Prerequisites: CHEM 4412 (or equivalent) and permission of instructor. Two hrs. lect., 6 hrs. lab. (Alt. Y)

6510 Advanced Topics in Physical Chemistry (3)

Selected topics in physical chemistry, e.g., molecular structure, spectroscopy, quantum mechanics, and crystallography. May be repeated for maximum of 9 units. Prerequisite: 1 year physical chemistry. (Y)

6521 The Chemical Bond (3)

The quantum mechanical description of the structure and spectroscopic properties of atoms and molecules, of the chemical bonding in molecules, and of bonding in solids and liquids. Prerequisite: CHEM 3513. (Sp)

6820 Seminar (1)

Written and oral review of topics in the current chemical literature; reports of research in progress. May be taken

three times for credit. CR/NC grading only. Prerequisite: upper division or graduate standing in chemistry. (A)

6830 Research (1-5)

Original research in chemistry, under the supervision of a member of the graduate faculty. May be repeated for a total of nine units. Prerequisites: Advancement to Candidacy and departmental approval. (A)

6850 Methods of Graduate Research (3)

An introduction to advanced research methods including bibliographical, instrumental, and laboratory applications. Prerequisites: "Classified Graduate" standing in chemistry and departmental approval. (Y)

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. No units may be counted toward the Chemistry major. CR/NC grading only. Prerequisites: at least a 3.0 GPA and departmental approval of activity. (A)

6900 Independent Study (1-3)

A maximum of four units may be applied toward the degree. (A)

6901 Comprehensive Review (2)

Preparation for Comprehensive Examination including review of relevant areas and preparation of a substantial written report on a selected topic under the direction of a faculty advisor. The final examination covers the selected topic and is the oral portion of the Comprehensive Examination. CR/NC only. Prerequisite: completion of or concurrent enrollment in all courses required in categories (1), (2) and (3) of M.S. program excluding one unit of CHEM 6820. (A)

6910 University Thesis (1-3)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense is normally required. Prerequisites: Advancement to Candidacy and departmental approval. Maximum of 3 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)

* Majors may enroll in cross-listed equivalent CHEM 6140, but course still counts in this category.

Computer Science [CS]

- [M.S. IN COMPUTER SCIENCE](#)
- [GRADUATE COURSES](#)

COMPUTER SCIENCE



Department of Mathematics and Computer Science
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John W. Summers

Professors:

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Associate Professors:

Chi Fai Ho, Dan Jurca, Farzan Roohparvar, Stuart Smith, Hwa Tang, William Thibault

Assistant Professors:

Kevin E. Callahan, Julie S. Glass, Kathleen Hann, Chung-Hsing OuYang

Lecturers:

Paula Albert, Jack A. Carter, Michael A. Contino, Dorothy E. Fujimura, Jean Simutis

Graduate Coordinator:

Donald L. Wolitzer

M.S. IN COMPUTER SCIENCE

Program Description

The Mathematics and Computer Science Department offers graduate study leading to the degree of Master of Science in Computer Science. This program is designed to extend the student's knowledge in a broad manner beyond the baccalaureate degree major in Computer Science. It will both (1) deepen general understanding of theoretical principles and (2) provide specific professional background. This approach is especially important in Computer Science, where training in specific languages and systems and on specific machines is transitory, as these languages, systems, and machines evolve. In contrast, many of the principles will last and generally apply to a wide variety of specializations within the field. This breadth is important to individual students because many of them will have a number of different job classifications in their working lives.

Our program features small classes that allow for close contact between students and faculty. Most graduate classes are offered in the late afternoon or early evening, making it possible for working students to attend. Courses toward the M.S. degree may also be taken during the summer quarter. Students may begin their studies in any one of the four quarters.

Students interested in the M.S. degree program in Computer Science should speak with the Computer Science Graduate Coordinator.

Career Opportunities

Systems Analyst ■ Program Analyst or Designer ■ Systems Manager or Programmer ■ Scientific Applications Programmer ■ Computer Operations Manager ■ Graphics Specialist ■ Software Engineer ■ Programming Team Member, possibly specializing in Design, Testing, or Documentation ■ Computer Network Support ■ Database Applications Programmer or Administrator ■ Computer Sales Representative ■ Customer Support ■ Technical Writer ■ Teacher/Professor

Faculty

The faculty of the Mathematics and Computer Science Department hold doctorates in a wide variety of areas. They have a strong commitment to high quality teaching, and have interests in fields such as computer graphics, networks, numerical analysis, compiler design, computer simulation, parallel programming, computer architecture, automata, multimedia, cryptography, computational complexity, language design and implementation, graph theory, microcomputer architecture, and database systems.

Features

Computer Science students at Cal State Hayward have access to some of the most modern and powerful computer equipment available. The campus provides a network backbone, including connection to the Internet, an IBM 9377, and hundreds of micro-computers. The department also has equipment of its own, including a network of Unix workstations (mostly SUN SPARCstations), a Macintosh classroom, and two classrooms equipped for computerized demonstrations. All mainframes and microcomputers are accessible from terminals located throughout campus and by modem off campus. Several computer labs on campus offer terminal access and assistance with problems.

Cal State has an active Computing Club, which hosts industry tours as well as academic and social events and is involved with a number of ongoing projects.

Scholarships

Each year the department awards a number of scholarships covering a large portion of the fees for the subsequent year. Scholarship applications may be obtained from the department office during the Winter quarter.

Admission

To apply for admission to the Master of Science program in Computer Science, a student must submit the proper forms, fees and transcripts to the university's Office of Admissions, which reviews each application initially. The department then reviews the application, making the decision whether to accept or reject the applicant. Each applicant must have the score on the general portion of Graduate Record Examination (GRE) submitted directly to the department. Submission of scores on the Computer Science portion is optional.

A student wishing to enter this program must normally have an undergraduate degree in Computer Science or in a related field, with courses in Computer Science as indicated below, and must have a grade point average of 2.75 in all undergraduate work and a 3.00 grade point average in the Computer Science Core and Mathematics courses listed below.

Computer Science Admission Requirements

28 quarter units (7 courses) of upper division Computer Science coursework that covers a broad range of Computer Science and includes the following four courses or their equivalents.

CS 3120 Programming Language Concepts

CS 3240 Data Structures and Algorithms

CS 3430 Computer Architecture

CS 4560 Operating Systems

Successful completion of equivalents to all the following mathematics requirements is also required.

Mathematics Requirements for Admission

A year of Calculus (MATH 1304, 1305, 2304)

Discrete Structures (MATH 2150)

Linear Algebra (MATH 2101)

An upper division course in Probability or Statistics (STAT 3401 or STAT 3502)

A student who has not met all of the above requirements may be admitted to the program at the discretion of the department as a "Conditionally Classified Graduate" student, provided the student's record clearly demonstrates the capability of meeting all these requirements.

No more than 20 quarter units taken while in "Conditionally Classified Graduate" status may be applied to the degree. Note that courses used to make up deficiencies for admission may not be applied toward the master's degree. A "Conditionally Classified Graduate" student who has no course deficiencies, a "B" or better average in at least 12 quarter units of post-baccalaureate study, and has satisfied the University Writing Skills requirement should petition the graduate coordinator for admission to the master's degree program with "Classified Graduate" status. A maximum of 13 units taken as an "Unclassified Post-baccalaureate" student may be applied to a master's degree.

Advancement to Candidacy

Advancement to Candidacy is a university requirement for graduation for a master's degree program. A student with "Classified Graduate" status may apply for Advancement to Candidacy after completing at least 16 quarter units towards the master's degree with a "B" average, including at least two 6000 level Computer Science courses with a "B" or better average.

Before being Advanced to Candidacy, a student's complete course of study must be approved by the Computer Science Graduate Committee.

Degree Requirements

The following departmental requirements are in addition to the university requirements.

A. Research Methodologies Requirement (2 units)

CS 6000 Research Methodologies (2)

B. Breadth Requirement (20 units)

CS 6260 Computational Complexity (4)

CS 6560 Operating System Design (4)

At least one course from each of the following three groups:

1. Theory

CS 6140 Language Design (4), 6170 Automata and Formal Languages (4), 6245 Combinatorial Algorithms (4), 6360 Formal Specification and Verification (4), 6520 Cryptography and Data Security (4); MATH 6750 Topics in Numerical Analysis (4)

2. Architecture

CS 6430 Computer Systems Architecture (4), 6432 VLSI Theory & Design (4), 6580 Distributed Systems (4)

3. Systems

CS 6110 Theory and Design of Compilers (4), 6660 Database Systems (4), 6810 Topics in Artificial Intelligence (4), 6840 Principles of Computer Graphics (4)

C. Capstone Experience (0-5 units). Select (1) or (2)

1. A comprehensive written examination. Details are available in Mathematics/Computer Science Department,
2. A Departmental Thesis (CS 6909). Students who write a thesis must have an advisor who agrees to oversee the work, and must have the proposed topic approved by the Computer Science Graduate Studies Committee.

D. Electives (18-23 units)

The following Cal State Hayward courses (or their equivalents) may be counted toward the master's degree:

MATH 3151 Combinatorics

MATH 4151 Graph Theory

All 3000-level (except for CS 3898), 4000-level and 6000-level Computer Science courses not used in categories (A), (B), and (C) above or as an admission requirement may be used as electives toward the master's degree. All 6000-level Mathematics courses may be used as electives toward the master's degree in Computer Science.

Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

GRADUATE COURSES

6000 Research Methodologies (2)

Seminar in recent research in Computer Science. Use of periodical and non-periodical literature for research in computer science. Students read, analyze, present, and discuss papers of current interest in Computer Science. Prerequisite: "Classified Graduate" standing in Computer Science M.S. degree program and permission of instructor. (Y)

6110 Theory and Design of Compilers (4)

Grammars and parsing techniques, advanced theory and methods of code generation, code optimization, error recovery, use of compiler-generator tools. Prerequisite: CS 4110.

6140 Language Design (4)

Topics in design and use of programming languages: object-oriented languages, functional and applicative languages. Exception handling, parallel processing and concurrency control. Fourth generation languages. Prerequisites: CS 3120 and 4110.

6170 Automata and Formal Languages (4)

Deterministic and nondeterministic finite automata. Regular grammars, languages, and expressions. Kleene's Theorem, algebraic characterizations. Chomsky hierarchy. Languages: regular, context free, context sensitive, recursive, type 0. Normal forms, pushdown automata, pumping lemmas, closure. Time and tape bounded Turing machines. Decision problems. Prerequisite: CS 4170.

6220 Parallel Algorithms and Programming (4)

Content of CS 4220 together with a graduate software/research project. Design and construction of parallel programs for shared and distributed applications and computers. Concurrency, communication and synchronization of parallel processes. Prerequisites: CS 4560 and graduate standing. Not open to those with credit for CS 4220.

6245 Combinatorial Algorithms (4)

Design and analysis of efficient combinatorial algorithms. Graph theory and algorithms: flows in networks, max flow/min cut theorem. Theorems of Menger, Hall, Tutte, Dilworth. Examples of algorithms drawn from matching, maxflow, mincost flow, Hitchcock Problem, weighted matching, linear programming. NP-complete problems, approximation algorithms. Prerequisites: CS 4245; MATH 3155 recommended.

6260 Computational Complexity (4)

Models of computation, particularly deterministic and nondeterministic Turing machines. Decision problems, measures of complexity (e.g. P, NP, PSPACE). Approximation algorithms, randomized algorithms. Prerequisites: CS/MATH 4170 or CS/MATH 4245 or permission of instructor. Cross-listed with [MATH 6260](#).

6310 Software Engineering (4)

Theory and practice of large software development projects, including methods of requirement specifications, programming approaches, program management, testing strategies, and performance evaluation. Team organization and management. Software life cycles. Prerequisites: CS 2360, CS 3240, and a senior level Computer Science course in which programs are written.

6360 Formal Specification and Verification (4)

Fundamental techniques of program specification and verification. Inductive methods for proving program correctness, including invariant, inductive and intermittent assertion methods and subgoal, structural and computational induction. Prerequisites: CS 3240 and MATH 2150 (or upper division mathematics course such as MATH 3155 in which theorems are proved).

6430 Computer System Architecture (4)

Processor design: register transfer, processor control, microprogramming. Design of instruction sets. Pipelining. Microprocessor-based architectures. RISC architectures. Memory hierarchies and organization: cache, RAM, mass storage. Addressing mechanisms, I/O organization: polling, interrupts, DMA. Highly parallel architectures. Prerequisites: CS 3430; CS 3432 and/or CS 3434 recommended.

6432 VLSI Systems Design (4)

The use of a highly integrated suite of CAD (Computer Aided Design) tools to design and test a bitsliced microprocessor that implements concepts from CS 6430, Computer System Architecture. Prerequisites: CS 4432 and CS 6430 or consent of instructor.

6520 Cryptography and Data Security (4)

Cryptographic theory with applications to data and file access security. Substitution ciphers, stream and block cyphers, algebraic codes, error correcting codes, Shannon's theorem. Cryptosystems, including public key. The Data Encryption Standard. Issues of privacy, authenticity, integrity. Implementation issues, including key management and chaining. Prerequisites: CS 4560, CS 4170 or 4245, and a course in probability; or permission of instructor.

6560 Operating Systems Design (4)

Theory of operating systems. Process synchronization, concurrency, resource management, security, performance evaluation, analytic models, human interfaces. Implementation issues. Prerequisite: CS 4560

6565 UNIX Internals (4)

Design and implementations of the BSD UNIX operating system: kernel, process management, memory management, file systems, i/o subsystems, device drivers, interprocess communications, network communications. Prerequisites: CS 2170, 3590, 4560.

6580 Distributed Systems (4)

Issues in the design and implementation of distributed systems. Network layers, architectures, and topologies. Distributed process management, concurrency control, deadlock, and recovery. Prerequisites: CS 4560 and 4590.

6660 Database Systems (4)

Design issues in current database systems: data models, storage management and access, distributed systems, query languages and query optimization, database integrity and security, encryption and decryption, concurrency control. Prerequisites: CS 4560 and 4660.

6750 Topics in Numerical Analysis (4)

(See [MATH 6750](#) for course description).

6800 Topics Seminar (4)

Presentation of selected topics beyond regular courses. Subjects will vary. Prerequisites: "Classified Graduate" standing in Computer Science M.S. degree program and consent of instructor.

6810 Topics in Artificial Intelligence (4)

Knowledge representation and reasoning. Theory and advanced programming techniques. Topics selected from areas of expert systems, natural language processing, image understanding, machine learning, games, and robotics. Prerequisite: CS 4810.

6840 Principles of Computer Graphics (4)

Advanced graphics algorithms including viewing, scan conversion, hidden line, hidden surface, ray tracing, shading and lighting, fractals. Solid modeling. Software packages, development, and standards. Software development on advanced graphics workstations. Prerequisite: CS 4840.

6870 Computer Simulation (4)

Introduction to construction and analysis of models by computer simulation. Study of one discrete and one continuous simulation language. Application to modeling biological, industrial, and physical processes. Prerequisites: MATH 3100, 3331, and a course in computer programming. Cross-listed with [MATH 6870](#).

6900 Independent Study (1-4)

6909 Departmental Thesis (1-4)

Development and writing of a research paper for submission to the department, which specifies its format. Supervision by a departmental committee, at least one of which must be a Cal State Hayward faculty member. May be repeated for a maximum of 5 units. Prerequisites: CS 6000, advancement to candidacy, and approval of thesis proposal by advisor and departmental committee.

Economics [ECON]

- [M.A. IN ECONOMICS](#)
- [OPTIONS](#)
- [GRADUATE COURSES](#)

ECONOMICS

Department of Economics
School of Business and Economics
Office: Music and Business Bldg. 2583
Phone: (510) 885-3339

Professors:

James C. W. Ahiakpor (Chair), Charles W. Baird, Alexander E. Cassuto, Gregory B. Christainsen, Shyam J. Kamath, Kurt R. Leube, Anthony K. Lima, Nan L. Maxwell, Lynn C. Paringer, Robert S. Ozaki, Stephen Shmanske, David J. St. Clair, Jay L. Tontz

Associate Professor:

Jane E. Lopus

Assistant Professor:

Leo Kahane

Graduate Advisor:

Leo Kahane

M.A. IN ECONOMICS

Admission Requirements

To be considered for admission, students must hold a baccalaureate degree from an accredited college or university and have a grade point average of 2.75 or better over the last 90 quarter units of their undergraduate program. A student who does not meet the grade point requirements may be admitted at the discretion of the department pending receipt of other evidence of the student's academic achievement.

Students enrolling in the program are expected to have completed MATH 1810-20 or a two-course sequence in calculus, STAT 2010 or equivalent, and at least one course in intermediate microeconomics and one course in intermediate macroeconomics. Students who have not completed the Economics prerequisites may enroll in the undergraduate courses and in ECON 6051 to fulfill the prerequisites.

Graduate Student Participation in Upper Division Undergraduate Courses

The department allows graduate students to enroll in selected upper division undergraduate courses under a graduate number for graduate course credit provided undergraduate credit had not already been earned for the courses. The graduate student is responsible for attending the lecture and discussion meetings of the undergraduate course and for

participation in any undergraduate assignments and testing specified by the instructor as being required of the graduate students. In addition, the graduate student must complete an added tutorial-type module involving independent reading assignments, reports, and research papers coupled with periodic, individual and/or small group meetings with the instructor. This approach to graduate student participation in undergraduate courses makes part of the greater breadth of the department's undergraduate course offerings available to the graduate students while still maintaining (1) the heavier workload, (2) the greater responsibility on the part of the student for independent learning, and (3) the higher performance expectations appropriate to graduate level instruction.

The following courses are available under the special graduate credit program described in the preceding paragraph. Graduate students may use units from these courses to satisfy the required elective units for their M.A. degree -- i.e., they may have from a minimum of zero to a maximum of 7-12 such units in their degree program. All of the listed courses have the same course descriptions as their parallel upper division courses; have a common set of prerequisites of ECON 3005 and ECON 3000 or 3551 or 6051, or consent of the instructor; and have a graduate tutorial module required. The specific content of each tutorial module is specified by the individual instructor. In order to have the units that are earned through any of the graduate/upper division courses count toward the 45 units of the M.A. degree, the graduate student must be enrolled in the course under the graduate number.

- ECON 6140 Topics in Economic History (4)
- ECON 6170 History of Economic Thought (4)
- ECON 6180 Selected Topics in Economic Thought (4)
- ECON 6190 Market Processes--Theory and Applications (4)
- ECON 6306 Environmental Economics (4)
- ECON 6310 Money, Banking, and Financial Intermediaries (4)
- ECON 6375 Public Choice (4)
- ECON 6500 Regional and Urban Economics (4)
- ECON 6590 Selected Topics in Economic Analysis (4)
- ECON 6685 Labor Institutions (4)
- ECON 6705 International Finance (4)

Classification in the Program

There are three levels of advancement for students within the M.A. program: "Conditionally Classified Graduate" standing, "Classified Graduate" standing, and Advancement to Candidacy. Note: If a student is in post-baccalaureate status but has not been accepted into a graduate degree program s(he) is an "Unclassified Post-baccalaureate" student). Admission to the university as an "Unclassified Post-baccalaureate" student in no way implies acceptance to a graduate degree program.

A. *Conditionally Classified Graduate Standing*

A student who has been admitted to a graduate degree program but who has not satisfied all prerequisite coursework or other requirements such as the University Writing Skills Requirement is a "Conditionally Classified Graduate" student. A student may be admitted to a graduate degree program as a "Conditionally Classified" graduate student upon:

1. submission of a written application, with required supporting documents, to the Admissions Office declaring an intent to pursue the M.A. degree in Economics;
2. acceptance by the department; and
3. completion of other appropriate requirements as specified in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog.

B. *Classified Graduate Standing*

A student who has been admitted to the M.A. program by meeting the requirements established in item 1 above; has fulfilled all prerequisite coursework and other requirements such as the University Writing Skills requirement; and has a strong background in economics may begin as a "Classified Graduate" student. Students admitted into the program but lacking such background will be designated as "Conditionally Classified

Graduate" students until deficiencies are made up and they are recommended for "Classified Graduate" standing by the department. The student must have fulfilled the University Writing Skills requirement to become a "Classified Graduate" student.

C. *Advancement to Candidacy*

To be Advanced to Candidacy in the M.A. program a student must:

1. be a "Classified Graduate" student in good standing;
2. have filed an approved program of study with the department;
3. have completed at least 12 quarter units in Economics considered applicable by the department toward the M.A. degree requirements, including at least 8 quarter units of graduate level (6100-6999 series) work in residence at Cal State Hayward; and
4. have been recommended for Advancement to Candidacy by the department.

Requirements for Graduation

To be eligible for the M.A. degree in economics a student must:

A. Have been Advanced to Candidacy;

B. Have completed 45 quarter units of graduate work as indicated in (C) below, of which:

1. All must have been earned within the five years just preceding the completion of the requirements for the degree;
2. Not fewer than 32 must have been completed in residence;
3. Not fewer than 28 must have been in Economics courses in the 6100-6999 series;
4. Not more than 5 may have been for a thesis (ECON 6910);
5. Not more than 13 have been taken in "Unclassified Post-baccalaureate" status and/or for extension and/or transfer course credit, as approved by the department; and

C. Have completed a satisfactory program of study (45 units) as approved by the department and the graduate coordinator, to include:

1. *Required Courses (20 units)*

ECON 6101-2 Seminar: Micro-Economic Theory I, II (8)

ECON 6105 Seminar: Macro-Economic Theory (4)

ECON 6400 Seminar: Econometrics (4)

MGMT 6110 Business and Economic Forecasting (4)

2. *Choice of one of the following groups (20-24 units):*

- a. Three graduate seminars (12 units) in Economics chosen from the following list: ECON 6195, 6200, 6250, 6315, 6370, 6520, 6680, 6700, 6710, (12) and two or three electives (8-12 units) chosen from graduate Economics courses or approved upper division electives in Mathematics, Statistics, Finance
- b. Complete one of the six approved options listed below (8 units), and one or two additional graduate seminars (4-8 units) from the above list, and one to three additional electives (4-12 units) chosen from graduate Economics courses or approved upper division or graduate electives in Mathematics, Statistics, Finance

3. *Choice of one of the following (1-5 units):*

- a. ECON 6895 Research Analysis (1) and pass a Comprehensive Field Exam,
- b. ECON 6910 University Thesis (1-5)

4. *Pass a two-part comprehensive exam:* one in microeconomic theory and one in macroeconomic theory

5. *Satisfy the other university requirements* for graduation described in the Graduate and Postbaccalaureate Studies chapter at the beginning of the graduate section in this catalog. These include a 3.00 GPA and the University Writing Skills requirement.

Comprehensive Field Examination

The Comprehensive Field Examination consists of an examination in a specialized area within Economics. Reading lists, on which examinations are based, are available for students. The following areas of specialization are available: Austrian School of Economics, Comparative Economic Systems, Econometrics, Economic Development, Industrial Organization, International Economics, Labor Economics, Monetary Economics, and Public Sector Economics. Students wishing to take an examination in an area not listed should consult with the graduate coordinator.

OPTIONS

Graduate students may choose to specialize in one area of economics by electing to take an option as part of the 45 units required for the M.A. degree. Successful completion of an option consists of coursework in a designated seminar and elective, and passing a Comprehensive Field Exam in that area or writing a thesis in the area. The student can further specialize in the area by focusing on other coursework. The department offers six options: Austrian School of Economics, Comparative Economic Systems, International Economics, Labor Economics, Monetary Economics, and Public Sector Economics. Please see the option descriptions for more detail.

Austrian School of Economics Option (8 units)

Required courses (8 units)

ECON 6190 Market Processes-Theory and Applications (4)

ECON 6195 Seminar: Austrian School Economics (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in Austrian School of Economics.

Suggested electives (not required)

ECON 6170 History of Economic Thought (4), 6180 Selected Topics in Economic Thought (4), 6375 Public Choice (4)

Comparative Economic Systems Option (8 units)

Required courses (8 units)

ECON 6200 Seminar: Comparative Economic Systems (4),

ECON 6710 Seminar: International Economic Development (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in Comparative Economic Systems.

Suggested electives (not required)

ECON 6370 Seminar: Public Sector Economics (4), 6375 Public Choice (4), 6700 Seminar: International Trade (4), 6705 International Finance (4)

International Economics Option (8 units)

Required courses (8 units)

ECON 6700 Seminar: International Trade (4)

ECON 6705 International Finance (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in International Economics.

Suggested electives (not required)

ECON 6710 Seminar: International Economic Development (4), 6200 Seminar: Comparative Economic Systems (4)

Labor Economics Option (8 units)

Required courses (8 units)

ECON 6680 Seminar: Labor Economics (4)

ECON 6685 Labor Institutions (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in Labor Economics.

Suggested electives (not required)

ECON 6500 Regional and Urban Economics (4), 6520 Seminar: Industrial Organization and Public Policy (4); MGMT 6612 Seminar in Human Resource Management (4), 6615 Compensation Administration (4)

Monetary Economics Option (8 units)

Required courses (8 units)

ECON 6310 Money, Banking, and Financial Intermediaries (4)

ECON 6315 Seminar: Monetary Theory (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in Monetary Economics.

Suggested electives (not required)

ECON 6705 International Finance (4); FIN 6325 The Financial Management of Banking Institutions (4)

Public Sector Economics Option (8 units)

Required courses (8 units)

ECON 6370 Seminar: Public Sector Economics (4)

ECON 6375 Public Choice (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in Public Sector Economics.

Suggested electives (not required)

ECON 6250 Seminar: Project Analysis (4), 6520 Seminar: Industrial Organization and Public Policy (4), 6680 Seminar: Labor Economics (4)

Business Economics Option, M.B.A.

An option in Business Economics is provided in the Master in Business Administration programs for students with an interest in Economics. (See the [Business Administration chapter](#) in the graduate section of this catalog.)

GRADUATE COURSES

Students who are not graduate students in the School of Business and Economics must consult with the instructor before registering for a graduate course in Economics.

6051* Graduate Introduction to Managerial Economics (4)

Intermediate microeconomic theory including business applications through case and problem assignments. Prerequisites: MATH 1820 (or concurrent), STAT 2010 or equivalent, graduate standing, and no undergraduate intermediate microeconomics course completed. (F, Sp)

6101 Seminar: Micro-Economic Theory I (4)**

First of two-quarter sequence: Selected topics in periodical literature in consumer behavior; price determination; and resource allocation patterns in a decentralized economy. Prerequisites: ECON 3005 and ECON 3000 or 3551 or 6051, or consent of instructor. (W)

6102 Seminar: Micro-Economic Theory II (4)**

Second of two-quarter sequence: Selected topics in periodical literature in general equilibrium; welfare theory and economic efficiency; capital theory. Prerequisite: ECON 6101. (Sp)

6105 Seminar: Macro-Economic Theory (4)**

Review of periodical literature on inflation, employment and economic growth. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor. (F)

6140* Topics in Economic History (4)**

History of economic development of a specific area or region of the world. Topics include U.S. history, African history, Eastern or Western European history, Middle Eastern history. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 3005 and 3000 or 6051; or consent of instructor.

6170* History of Economic Thought (4)**

The key theories and individuals in the history of economic thought including Adam Smith, David Ricardo, and Karl Marx. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

6180* Selected Topics in Economic Thought (4)**

Particular economic theorists, methodologies, schools of thought, and themes in the history of economics. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

6190* Market Processes-Theory and Applications (4)**

Austrian School analysis of socioeconomic phenomena including: methodology of the social sciences, theory of subjective value, entrepreneurship, competition as a discovery procedure, spontaneous orders, the division of knowledge, the capital structure, and trade cycles. Historical applications used throughout. Prerequisites: ECON 3005 and one of the following: ECON 3000 or 3551 or 6051; or consent of instructor.

6195 Seminar: Austrian School Economics (4)

An in-depth study of the development of the Austrian School including emphasis on its cultural and historical settings. The original works of the main, as well as some of the lesser-known, contributors from Carl Menger to the present will be analyzed. Prerequisite: ECON 6190 or consent of instructor.

6200 Seminar: Comparative Economic Systems (4)

Selected problems and approaches to resource allocation, income distribution, economic development, and

planning in alternative economic systems. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

6250 Seminar: Project Analysis (4)**

Benefit-cost analysis applied to resource allocation and planning. Applications to such areas as education, manpower programs, medical care, transportation, and non-profit enterprises. Prerequisite: ECON 6101 or consent of instructor.

6306* Environmental Economics (4)**

Readings, reports, and discussion on economic aspects of environmental problems and alternative proposed solutions: pollution, congestion, and population. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

6310* Money, Banking, and Financial Intermediaries (4)**

Essentials of commercial and central banking; financial intermediaries; monetary policy. Prerequisites: ECON 3005 or consent of instructor.

6315 Seminar: Monetary Theory (4)**

Review of periodical literature on static and dynamic issues of the supply and demand for money. Prerequisite: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

6370 Seminar: Public Sector Economics (4)**

Economic analysis as applied to the public sector including public finance, welfare economics, public expenditure evaluation, theories of taxation, analysis of the U.S. tax structure, public choice, and policy issues. Prerequisites: ECON 3005 and one of the following: ECON 3000 or 3551 or 6051; or consent of instructor. (Sp)

6375* Public Choice (4)**

Economic theory applied to political institutions and decision-making within governments. Allocations under various property right systems; coalitions and voting behavior; theory of constitutions; theory of bureaucracy; political economy of income redistribution, crime, violence, discrimination, federalism, nationalism, anarchy. Prerequisites: ECON 3005 and ECON 3000 or 3551 or 6051, or consent of instructor.

6400 Seminar: Econometrics (4)**

Statistical analysis of economic relationships. Regression analysis, multi-equation models and time series analysis. Prerequisites: ECON 3005, MGMT 6110, and ECON 3000 or 3551 or 6051.

6500* Regional and Urban Economics (4)**

Economic analysis as applied to urban and regional economic problems and policies. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

6520 Seminar: Industrial Organization and Public Policy (4)**

Selected topics in industrial organization and public policy including antitrust policy. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

6590* Selected Topics in Economic Analysis (4)**

Application of economic analysis to past/contemporary economic issues. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

6680 Seminar: Labor Economics (4)**

Selected topics on theoretical models of labor markets with applications to current micro and macro economics manpower problems. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

6685* Labor Institutions (4)**

Development of the labor sector in the American economy with emphasis on labor institutions, labor legislation,

and public policy toward labor organizations. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

6700 Seminar: International Trade (4)**

Selected topics in the modern theory of international trade and investment, multinational enterprise, commercial policy and international trading systems and methods. Prerequisites: ECON 3005 and one of the following: ECON 3000 or 3551 or 6051, or consent of instructor.

6705* International Finance (4)**

Comprehensive coverage of the organization, operation and theory of foreign exchange markets, Eurocurrency and offshore financial markets, balance of payments and international adjustment, international capital flows and different types of international monetary systems. Prerequisites: ECON 3005 and one of the following: ECON 3000 or 3551 or 6051; or consent of instructor.

6710 Seminar: International Economic Development (4)**

Selected topics in the theory and practice of international economic development with a focus on the nature and causes of development in specific areas and nations of the world. Prerequisites: ECON 3005 and one of the following: ECON 3000 or 3551 or 6051; or consent of instructor.

6715 An Executive Introduction to Social Philosophy, Ethics, and the History of Economic Thought (5)

An in-depth review of major controversial socio-philosophical concepts: the State, the society, individual freedom, the environment, justice, and free markets; conflicting trains of economic thought; the key figures and their main social theories; methodological problems of implementation and realization of political ideals. Prerequisite: graduate standing.

6720 The European Union, Its Institutions, and International Trade (4)

An economic analysis of the institutional evolution of European legal, cultural, and political integration, and competition from eastern Europe. The leading institutions of the European Union: their tasks, procedures, and effects on business regulations, industrial policy, and international trading systems. Prerequisite: graduate standing.

6725 Money, Banking, and International Finance (4)

A theoretical and applied analysis of international monetary policies, commercial and central banking, international capital markets, capital flows, and exchange rates determination. A comprehensive coverage of the most important international financial institutions, their structures, network operations, and socioeconomic tasks. Prerequisite: graduate standing.

6751 Managerial Economics (4)

Selected topics in the socioeconomic application of intermediate microeconomic theory with an emphasis on the needs of the international business community. Prerequisite: graduate standing.

6895 Research Analysis (1)**

Written analysis of five seminar presentations by various economists. Presentations are subject to approval by a project supervisor who is appointed by the graduate advisor.

6898* Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 8 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA; departmental approval of activity. CR/NC grading only. (A)

6900 Independent Study (1-4)

6901 Preparation for MBA Comprehensive Examination (1)

Preparation emphasizing a clear understanding of basic concepts and a synthesis and critical analysis of theory

and practice within the student's specialty and Business Administration. Credit assigned after passing examination. CR/NC grading only. Prerequisite: minimum of 32 units applicable to the degree completed prior to exam.

6910 University Thesis (1-6)**

Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisites: Advancement to Candidacy and an officially appointed thesis director or committee. Maximum of 6 units per student. (See also "University Thesis Writing Guide," available in WA 859). (A)

* Enrollment in this course is restricted to "Classified" and "Conditionally Classified Graduate" students. The course is a graduate program prerequisite, and its units cannot be applied to the 45 units required for any SBE graduate degree.

** Enrollment in these courses is restricted to "Classified" and "Conditionally Classified Graduate" students.

*** Undergraduate, upper division course plus a graduate tutorial module. Not open to students who have completed the parallel-numbered undergraduate course at Cal State Hayward for credit.

Education: Interdisciplinary [EDUI]

- [PROGRAM DESCRIPTION](#)
- [COURSES](#)

EDUCATION: INTERDISCIPLINARY

Interdisciplinary Studies
School of Education and Allied Studies
Office: Arts and Education Bldg. 109
Phone: (510) 885-7418

Professors:

Emily Lowe Brizendine (Coordinator), Joanna Dominquez Servatius

Associate Professors:

Bijan Gillani

Lecturer:

John Chavez

PROGRAM DESCRIPTION

The **Interdisciplinary Studies** (School of Education) program is built on the recognition that there are some issues that cross disciplines or professional areas within the School of Education. It develops cross-disciplinary courses and experiences for students at the same time it provides a base for those subjects, programs, and faculty not currently embraced by any one department. It promotes interdisciplinary collaboration among students and faculty in the School of Education, builds partnerships, and broadens program offerings for current and new students. By involving faculty from three or more departments in common endeavors, the Interdisciplinary Academic Cluster actively encourages cross-departmental renewal and innovation.

COURSES

The course prefix for the following courses is EDUI.

Post-baccalaureate

5007 The Compleat Internet (3)

Exploration of all facets of the Internet through a broad variety of on-line activities. Hands-on discovery of myriad resources, everything from E-mail to creating pages on the World Wide Web. Focus will be tailored to students' individual discipline.

5010 Promoting Women's Participation in Science and Mathematics (4)

Education, influences, and achievements of women in science and mathematics, both past and present. Obstacles to women pursuing education in science and mathematics plus methods used to overcome them. Role of societal attitude toward women in science and mathematics including the influence of teachers, career counselors, parents, and peers.

5090 Computer Applications for Educational Settings (4)

Understanding of computers beyond word processing. Using computers as an adaptive, interactive, and exploratory tool and as an introduction to understanding different applications in educational settings. Word processing, database, spread sheet, multimedia, and internet applications.

5900 Independent Study (1-4)**Graduate Courses****6741 Family, School, Community Collaborations (4)**

Provides school administrators, teachers, psychologists, and counselors with a knowledge base for promoting family-community-school partnerships which will increase student academic success among ethnically, linguistically, culturally, and economically diverse populations. Participants examine ecological theoretical perspectives, engage in systemic analyses of real-world family-school-community relationships, and explore characteristics of effective family-school partnership programs.

6800 Issues in Research (4)

An interdisciplinary analysis of current issues in educational research. Emphasis on the critical analysis and evaluation of research.

6900 Independent Study (1-4)

Educational Leadership [EDLD]

- [M.S. IN EDUCATIONAL LEADERSHIP](#)
- [GRADUATE COURSES](#)

EDUCATIONAL LEADERSHIP

Department of Educational Leadership
School of Education and Allied Studies
Office: Art and Education Bldg. 242
Phone: (510) 885-4145

Professors:

Robert W. Blackburn, Emily Lowe Brizendine, Linda G. Lambert (Chair)

Associate Professors:

Sarah A. Gonzales, Jose Lopez, Charla W. Rolland

Lecturers:

Grace H. Hoagland, Jackie Reza, Cynthia Temesi

Graduate Advisor:

Linda G. Lambert

M.S. IN EDUCATIONAL LEADERSHIP

Program Description

The mission of the Department of Educational Leadership is to prepare and influence bold, socially responsible leaders who will change the world of schooling.

The department offers graduate study leading to the Master of Science degree in Educational Leadership as well as programs approved by the California Commission on Teacher Credentialing leading to the Preliminary Administrative Services Credential (Tier I), Professional Administrative Services Credential (Tier II), and Internship Credential in Administrative Services (Education Code 44225 et al.). Students seeking the degree and/or any of the Administrative Services Credentials must meet the general university requirements as well as the departmental requirements listed below. Additional advising and information are available through the department. Entry to all programs is currently limited to Fall quarter only. Scholarships are available.

Career Opportunities

Completion of the credential and masters programs enable graduates to obtain an administrative credential that allows them to assume administrative positions at all levels of the K-12 public educational system. Various positions include those at school sites administration (principal, vice principal, dean of students), and district level administration (curriculum coordinator, staff development coordinator, special programs coordinator, personnel director, assistant superintendent, superintendent, etc.). In addition, graduates also obtain many positions at the county and state level

offices.

Faculty

The department has eight full-time professors with earned doctorates who have had extensive experience in administrative positions at various levels in the public schools before joining the faculty. Their previous positions include principal, vice-principal, district curriculum coordinator, staff development coordinator, county training center director, personnel director, assistant superintendent and superintendent. The faculty draws its strength from their diversity of experiences, professional and research interests, expertise, gender, cultural, racial and ethnic backgrounds. They are actively engaged with schools in the Bay Area, serving as consultants (nationally and internationally) and coaches in many facets of schooling. They are recognized as leaders in numerous regional, statewide, and national networks and professional organizations. The faculty is complemented by a select group of lecturers who are respected practicing administrators in Bay Area school districts and county education offices.

Special Features

Cohort Groups: In the Fall quarter, students are typically admitted into class groups, called cohorts, whose members take at least their first three courses and fieldwork together as a group during Fall-Winter-Spring. Thereafter, the additional required courses are taken on an individual basis. The three-quarter cohort time frame permits examination of issues as recurring themes. All students are now in cohorts, including the Tier I, Tier II, Internship, and master's degree candidates.

School District Collaboration: Two of the cohort programs are unique in involving school districts in identifying educational administration candidates: the Leadership Academy and the Diversity in Leadership Program (DLP). Students in these cohorts require nomination by their districts for admission.

The Internship Program: The department offers two ways to acquire an Internship Administrative Services Credential: the Diversity in Leadership Program (DLP) and the Individual Internship Option. These programs allow candidates to serve in an administrative capacity while completing credential requirements and are open only to students who are recommended by their districts and who hold either a full or a part-time administrative position. Students in the Individual Internship Option can participate in any cohort. Students in Diversity in Leadership Program must be given release time to attend day time classes. The common bond of DLP participants is the commitment to improving achievement of minority students and to creating an inclusive learning environment that values and reflects the diversity of American society.

Scholarship

Annually, the Helen C. Jacobsen Scholarship (\$1000) is awarded through the California State Affiliates to deserving students in the Department of Educational Leadership. Selection is based on performance in department coursework and fieldwork, assessment of financial need, and demonstration of commitment to pursuing a career in school administration. This requires a written statement that includes examples of accomplishments and evidence of commitment to collaboration and diversity in school leadership.

Admission

A candidate must be admitted to the university, consistent with requirements and procedures explained in this catalog. The department, however, must indicate it is willing to accept the student before the Enrollment Services Office will accept the student for admission to the university. Interested candidates should call the department office in early February before the Fall entrance quarter to obtain information on the departmental application deadline and interview schedule. Additional requirements for admission to the M.S. in Educational Leadership and/or the Administrative Services Credential include:

- A valid basic teaching credential or services credential (Pupil Personnel Services, Adult Education,

Librarianship, Health Services School Nurse, or Clinical Rehabilitative Services). The Preliminary Administrative Services Credential is required for entry to the Professional Administrative Services Credential program.

- A minimum of three years full-time teaching or service experience, as documented on a current resume and district verification.
- 3.0 GPA or equivalent on all post-baccalaureate work.
- Letters of recommendation as required (contact department).
- A one-page statement of professional goals.
- Successful passage of CBEST.
- Current status as a school administrator (for Professional and Internship credentials).
- For "Classified Graduate" status and Advancement to Candidacy, the M.S. student must have successfully met the University's Writing Skills requirement.
- For the M.S. degree, a bachelor's degree from an approved institution and the other admission requirements of the university. See the [Graduate and Post-baccalaureate Studies chapter](#) at the beginning of the graduate section of this catalog.

Degree Requirements

1. A minimum of 45 quarter units of approved work, at least 32 of which must be in residence, and all completed within a five-year period.
2. A 3.0 GPA or better in all 45 quarter units offered as satisfying the requirements of the degree program.
3. Satisfactory completion of the University Writing Skills requirement (required for "Classified Graduate" standing).
4. Satisfactory completion of EDLD 6908 Graduate Synthesis in Educational Leadership, which includes a comprehensive examination.

Curricular Requirements (45 units)

The established pattern of required and approved courses is designed to meet both the preliminary credential and degree requirements. Students already holding credentials from other institutions take the degree and/or program requirements listed below and any additional courses required by department advisor to meet current credential mandates.

A. *Complete the following courses (31-34 units)*

EDLD 6000 Introduction to Educational Leadership (4)

EDLD 6020 Research in Education (4)

EDLD 6300 The Administration of Curriculum Development (4)

EDLD 6400 Instructional Leadership (4)

EDLD 6410 Supervision and Staff Development (4)

EDLD 6550 School Site Leadership and Organization Behavior (4)

EDLD 6600 School Law and Finance (4)

EDLD 6908 Graduate Synthesis in Educational Leadership (4) and comprehensive examination or EDLD 6899 Project (2-5) or EDLD 6909 Departmental Thesis (2-5), or EDLD 6910 University Thesis (3-6)

B. *Electives selected from the following through consultation with an advisor (11-14 units)*

EDLD 6710 Seminar in Professional Ethics (4), EDLD 6720 Using Research to Solve School Problems (4), 6730 School Administrators' Application of Computer Technology (4), 6820 Improving Curriculum Instruction (4), 6825 Promoting Staff Growth (4), 6830 Planning and Evaluating Instructional Programs (4), 6835 Organizational Development in Education (3), 6845 Studies in Contemporary Educational Policy (2)

Preliminary Administrative Services Credential (36 units)

EDLD 6000 Introduction to Educational Leadership (4)

EDLD 6300 The Administration of Curriculum Development (4)
EDLD 6400 Instructional Leadership (4)
EDLD 6410 Supervision and Staff Development (4)
EDLD 6550 School Site Leadership and Organizational Behavior (4)
EDLD 6600 School Law and Finance (4)
EDLD 6801, 6802, 6803 Fieldwork I, II, III (12)

Professional Administrative Services Credential (24 units)

A preliminary credential is required as a prerequisite.

EDLD 6817 Assessment, Mentoring & Support Practicum (3)
EDLD 6818 Assessment, Mentoring & Support Practicum (3)
EDLD 6819 Assessment, Mentoring & Support Practicum (3)
EDLD 6851 Professional Practicum I (2)
EDLD 6852 Professional Practicum II (2)
EDLD 6853 Professional Practicum III (2)
EDLD 6860 Developing an Inquiring Community (3)
EDLD 6865 Focus on Learning (4)
EDLD 6870 Professional and Organizational Development (3)

Internship Credential in Administrative Services (45 units)

EDLD 6000 Introduction to Educational Leadership (4)
EDLD 6300 The Administration of Curriculum Development (4)
EDLD 6400 Instructional Leadership (4)
EDLD 6410 Supervision and Staff Development (4)
EDLD 6550 School Site Leadership and Organizational Behavior (4)
EDLD 6660 School Law and Finance (4)
EDLD 6804, 6805, 6806 Internship Fieldwork I, II, III (18)
EDLD 6814, 6815, 6816 Internship Seminar I, II, III (3)

GRADUATE COURSES

6000 Introduction to Educational Leadership (4)

Introductory seminar that includes legal, fiscal and administrative basis for school organization; leadership theories; the governance and relationship of local school districts with county, state, federal agencies and other political entities. Prerequisite: graduate standing and one year of teaching experience. (F)

6020 Research in Education (4)

Seminar in methods and procedures of research tools in education; sources and uses of data. Critical analysis of published research; preparation of a research project to include references, rationale, and outline. Prerequisite: Advancement to Candidacy or consent of instructor. (Y)

6099 Multimedia/Hypermedia (4)

(See [T ED 6099](#) for course description.)

6300 The Administration of Curriculum Development (4)

The history, theoretical background and elements of curriculum development; strategies for effecting curriculum change; implementation procedures for mandated and special programs (including state mainstreaming requirement); use of research and program evaluation. Prerequisite: graduate standing and one year of teaching experience. (Y)

6400 Instructional Leadership (4)

Critical analysis of the nature of effective instruction for all students. Learning theories, teaching/learning styles, classroom management, assessing pupil progress, helping teachers meet individual and group needs, basic classroom observation techniques for instructional improvement, and laws affecting instruction. (Y)

6410 Supervision and Staff Development (4)

Theory of supervisory functions. Survey of techniques that provide for staff development with emphasis on clinical supervision. Systematic planning and procedures in design and delivery of inservice training programs. Prerequisite: EDLD 6000 or department approval. (Y)

6550 School Site Leadership and Organizational Behavior (4)

Basic operational tools and procedures for prospective principals. Situational analysis of administrative problems via application of behavioral science theories and concepts. Prerequisites: graduate standing and one year teaching experience. (Y)

6600 School Law and Finance (4)

Legal and fiscal aspects of school operation for beginning administrators. Overview of forces which shape legislative provisions; case law and funding patterns at local, state and national levels. District policy and practices related to law and finance. (Y)

6710 Seminar in Professional Ethics (4)

Morals and ethics in educational leadership. Underlying assumptions of educational decision-making and nature of choices, responsibilities and relationships which people in various leadership roles must confront, reflect on, and act upon. (Y)

6720 Solving School Problems through the Application of Research (4)

Identifying and interpreting research, including action research, on specific school problems. Application of findings to solution of these problems. Influence of research, including action research, on educational practices. Prerequisite: graduate standing.

6730 School Administrators' Application of Computer Technology (3)

Identification of school management issues which can be addressed through computer technology/software packages. Use of software packages for school administrative functions such as scheduling, budgeting, and attendance. Problem-solving practica. Prerequisite: basic computer skills.

6801, 6802, 6803 Fieldwork I, II, III (4, 4, 4)

Supervised experiences in selected areas of administration/supervision, generally in a school setting, but other community agencies may be used. Regular reports and conference required. CR/NC grading only. Open only to matriculants in Educational Leadership. Prerequisite: department approval. (A)

6804, 6805, 6806 Internship Fieldwork (6 each)

Sequential supervised experiences in most areas of administration/supervision for candidates serving as part-time or full-time administrators on an Internship Credential. Regular reports and conferences required. Open only to candidates in the Internship Program. CR/NC grading only. Prerequisite: departmental approval. (F, W, Sp)

6814, 6815, 6816 Internship Seminar (1 each)

Intensive studies designed to help integrate each candidate's sequential internship fieldwork experiences with coursework and deal with issues common to initial administrative positions. Open only to candidates in the Internship Program. CR/NC grading only. Prerequisite: departmental approval. (F, W, Sp)

6817, 6818, 6819 Assessment, Mentoring, and Support Practicum (3 units each)

A one-year, advanced professional practicum sequence. Individual candidate assessment and planning for professional development. Design of individual professional growth and support plan with school district and university mentors, on-site visits and observations, and monthly colloquia. CR/NC grading only. Prerequisites: Preliminary Administrative Credential, administrative position, and consent of advisor. (F, W, Sp)

6851, 6852, 6853 Professional Practicum I, II, III (2 each)

A three-quarter series field practicum. Individual mentoring and professional support, critical inquiry into the five Advanced Leadership Seminar themes; formative and summative assessment. Practicum involves on-site visits and observations; conferencing with district administrators and mentors. Prerequisites: EDLD 6817, 6818, 6819; administrative position; Preliminary Administrative Credential and consent of advisor.

6860 Developing an Inquiring Community (3)

The first course in a three-quarter integrated series. Focus on developing community and inquiry methods such as action research. Based on five major themes: organizational and cultural environment; dynamics of strategic issues management; ethical and reflective leadership; analysis and development of public policy; management of information systems and human and fiscal resources. Prerequisites: EDLD 6817, 6818, 6819; administrative position; Preliminary Administrative Credential; consent of advisor.

6865 Focus on Learning (3)

The second course in a three-quarter integrated series. Focus on student, adult, and organizational learning. Based on five major themes: organizational and cultural environment; dynamics of strategic issues management; ethical and reflective leadership; analysis and development of public policy; management of information systems and human and fiscal resources. Prerequisites: EDLD 6817, 6818, 6819, 6825; administrative position; Preliminary Administrative Credential and consent of advisor.

6870 Professional and Organizational Development (3)

The third course in a three-quarter integrated series. Focus on the professional development of staff and parents and the development of communication and information systems in the school. Based on five major themes: organizational and cultural environment; dynamics of strategic issues management; ethical and reflective leadership; analysis and development of public policy; management of information systems and human and fiscal resources. Prerequisites: EDLD 6817, 6818, 6819, 6825, 6830; administrative position; Preliminary Administrative Credential and consent of advisor.

6899 Project (2-5)

Development of an original product which is summarized in a written abstract. Both the project and abstract are submitted to department, which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State, Hayward faculty member. Prerequisite: EDLD 6020. Maximum of five units per student. (A)

6900 Independent Study (1-4)**6908 Graduate Synthesis in Educational Leadership (4)**

Students synthesize their degree program experiences in coursework, fieldwork and research into a coherent framework for their own leadership role and plan their future professional development. Includes comprehensive exam. (Y)

6909 Departmental Thesis (2-5)

Development and writing of a research paper for the submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense required. Prerequisite: graduate standing. Maximum of 5 units per student. (A)

6910 University Thesis (1-6)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also, "University Thesis Writing Guide," available in Warren Hall 859.) (A)

Educational Psychology [EPSY]

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EDUCATIONAL PSYCHOLOGY

Department of Educational Psychology
School of Education and Allied Studies
Office: Art and Education Bldg. 369
Phone: (510) 885-3011

Professors:

Theodore G. Alper, Jacki L. Anderson, Thomas G. Anderson, Donald J. Brown, Steven E. Crapo, Mary P. diSibio, David H. Frey, John A. Guthrie, Frederick E. Heslet, Alvin H. Jones, Jr. (Chair), Phyllis G. Kaplan, Donald P. McKillop, Leslie H. Mitchell, Harry M. Overline, Beatrice O. Pressley, Dan Romero, Douglas G. Sprague, Derald W. Sue, Arthurlene Towner, Thomas E. Whalen

Associate Professor:

Ann Halvorsen

Assistant Professors:

Greg Jennings, Steve Williams

Graduate Coordinators:

Clinical Child Psychology: Mary P. diSibio

Special Education: Phyllis Kaplan (Learning Handicapped), Jacki L. Anderson (Severely Handicapped)

Individual, Family, and Community Counseling: Jack Guthrie

Clinical Applications and Family Studies: Fred Heslet, Donald Mekillop

Educational and Psychological Studies: Donald J. Brown

Contra Costa Counseling Program: Dan Romero

PROGRAM DESCRIPTION

The Educational Psychology Department is a graduate department offering master's degrees and credential programs. Graduate courses offered toward master's degrees and/or credential programs are restricted to students admitted to these programs. However, some courses at the 1000 level and 5000 level are open to undergraduate students.

Students who want an introduction to counseling, or who are contemplating entering the field, are encouraged to take EPSY 5610 and EPSY 5620. Those interested in Special Education will find EPSY 5021 helpful. Potential applicants interested in clinical child or school psychology are encouraged to take courses in undergraduate Psychology, Human

Development, and/or Anthropology.

The Department of Educational Psychology offers a number of programs to train psychological specialists to work in the public and private sectors. Courses of study are available for persons desiring to work as school counselors, school psychologists, special education professionals, community college counselors, and career specialists. Other sequences are tailored to prepare individuals for working as a counselor, psychologist, or special education professional in non-school settings where assistance with problems related to career, social, family, marriage, or personal adjustment is provided. A sequence for developing research, evaluation, and psychological testing competencies can also be pursued.

Contra Costa Campus

The department is pleased to have available at the Contra Costa Campus (located in Concord) an M.S. degree program in Counseling. In addition, the Learning Handicapped Specialist Credential is offered at Concord. A department brochure describing both Hayward and Contra Costa programs may be requested by telephone (510) 885-3011, or in writing. Current information on the Contra Costa programs may also be obtained by calling (510) 602-6700.

Program Offerings

Undergraduate

Liberal Studies Option in Special Education

(See the [Liberal Studies chapter](#) in the undergraduate section of this catalog.)

Graduate

Master of Science in Counseling

- Option in Clinical Child Psychology
- Option in Marriage, Family, and Child Counseling
- Master of Science in Education*
- Option in Educational and Psychological Studies
- Master of Science in Special Education*
- Option in Learning Handicapped
- Option in Severely Handicapped

Credentials

- School Psychology
- School Counseling (Pupil Personnel Services)
- Special Education-Learning Handicapped, Severely Handicapped

Other Programs

- A department-approved Certificate in Chemical Dependency (available in Extended Education).
- Resource Specialist Certificate of Competence

Besides these programs, the department also provides coursework and degrees designed to satisfy the educational requirements for the Marriage, Family, and Child Counseling License (Board of Behavioral Science Examiners) and the Educational Psychology License (Board of Behavioral Science Examiners).

Admission

Students are admitted once a year, in the Fall quarter (except those applying for the Special Education credential programs, who are admitted conditionally each quarter). Students who are accepted into the program may apply classes taken in the preceding quarter to the degree. Only 13 units taken in undergraduate, "Unclassified Post-baccalaureate," "Classified Post-baccalaureate," and/or extension status, however, can be applied to a degree program. (Transfer units are also included in the 13 non-residence units which are permitted.) Interested

individuals should contact the department office to obtain the admission packet, which contains descriptive materials and necessary forms. This packet is available after October 15, and the department will accept applications beginning November 1. All accompanying admissions material, such as test scores and recommendation letters, must be in by April 15. Call the Admissions Office for their admission deadlines for university applications. Applications received past this date run the risk of not being accepted by the university or the department. Notification of any action taken by this department will be mailed on or before June 15. Please note that students are admitted by the university, not the department. The department recommends to the university, but only the university may admit students. Only the university admission document can validate and verify admission.

Procedures

1. Apply to the Cal State Hayward Admissions Office. This department cannot process your request for entry until notification that your application and fee have been received at the Cal State Hayward Admissions Office.
2. Fill out the "Departmental Request for Entry" form and return it to the department office.
3. Recommendation forms should be completed by persons who know of your academic and/or professional abilities. Ask them to fill out the form and send it to the department office. At least one should be from a faculty member who is acquainted with your academic ability and promise. The clinical child psychology division requires five recommendations; the other divisions require three.
4. Send to the department office a personal statement in which you describe your professional goals, the extent of commitment to these goals, and your assessment of your strengths and weaknesses relative to achieving these goals. Most applicants find that an adequate length is two to four pages.
5. Send or have sent to the department office, scores from either the aptitude section of the Graduate Record Exam (GRE) or the Miller Analogies Test (MAT). These tests are administered by the Assessment and Testing Office at Cal State Hayward and the Educational Testing Service.
6. Submit a photocopy of all your transcripts to the department office, in addition to the official copies you send to the Cal State Hayward Admissions Office.
7. Personal or group interviews with faculty are required for local applicants. Arrangements for these are described in the department admission packet.
8. Degree candidates must take the Writing Skills Test during the first quarter of attendance after admission to the department if they have not previously satisfied the requirement (see the [Graduate and Post-baccalaureate Studies chapter](#) in this catalog). Satisfaction of this requirement is a prerequisite for "Classified Graduate" status. Documentation of the completion and passing of the WST must be sent by the applicant to the Educational Psychology office. This information is not automatically forwarded to individual departments.
9. Students applying for a program leading to a credential from the Commission for Teacher Credentialing must take the California Basic Education Skills Test (CBEST) before commencement of the quarter in which they are to be admitted. As the testing is for diagnostic purposes, only a record of completion is required. Consult the Office of Assessment and Testing for times and dates of the testing.
10. Credential candidates must apply through the Cal State Hayward Credentials Office for a "Certificate of Clearance" (which includes a current TB test) if field work in public schools is anticipated (unless they possess a valid California Teacher's Credential).

Applicants may contact the department's Graduate Records Secretary for clarification of their requirements and monitoring the state of their application or the progress of their degree or credential awards: (510) 885-3011.

Advising

Students who are accepted into the department will normally be admitted in "Conditionally Classified Graduate" status until satisfaction of the University Writing Skills requirement is documented to the Educational Psychology office, at which time a change to "Classified Graduate" status will be requested by the department. The student is assigned an official advisor from the faculty of the department and must consult his or her

advisor prior to registration for each quarter. The student should maintain close contact at all times with the advisor for advice and information.

Advancement to Candidacy

Formal Advancement to Candidacy for the master's degree requires prior completion of the following steps:

1. Successful completion in "Classified Graduate" status of three or more courses at the 6000 level (minimum of 12 units) within the Educational Psychology Department.
2. Successful completion of all required departmental examinations and prerequisites.
3. Maintenance of a 3.0 or better GPA in all departmental coursework and overall coursework.
4. Acceptance by the department of a proposed formal program of study.
5. Recommendation by the faculty of the department for acceptance as a candidate.

Note: A similar process is followed for Special Education Credential students to be moved from special to full status admission.

Cause for Discontinuance

Students may be discontinued "for cause" at any time from the program. In addition to poor academic and fieldwork performance. "For cause" includes student behaviors considered by the faculty to be inconsistent with the legal, ethical and/or professional principles of our field.

Degree Requirements

In order to earn a master's degree, students must fulfill all of the following requirements:

1. Satisfy the University Writing Skills requirement.
2. Hold Advanced to Candidacy standing.
3. Complete 72 units (Counseling) or 45 units (Education or Special Education) quarter units of approved graduate work, of which:
 - a. all must have been earned within the five years just preceding completion of the requirements for the degree.
 - b. not fewer than 32 units (for 45-unit degrees) or 59 units (for 72-unit degrees) must have been completed in residence
 - c. not fewer than 23 units (for 45-unit degrees) or 36 units (for 72-unit degrees) must have been in courses in the 6000 series
 - d. not more than 9 units may have been for a University Thesis or 5 for a project or a Departmental Thesis
 - e. not more than 13 units may be transfer, extension (including Open University), and/or taken in "Unclassified" or "Classified Post-baccalaureate" status
 - f. not more than 9 units may be a combination of fieldwork and thesis/project when taken as individual supervision.
 - g. not more than 15 units with a "CR" grade may be used for a 45-unit degree; not more than 24 units with a "CR" grade may be used for a 72-unit degree in Counseling.
4. Complete a satisfactory program of study as determined by the department with any substitutions approved by the Dean of the School of Education
5. Obtain at least a 3.0 grade point average in
 - a. all post-baccalaureate units undertaken
 - b. all post-baccalaureate units undertaken at Cal State Hayward
 - c. all units offered as satisfying the requirements of the degree program
6. Successfully complete an acceptable thesis, project or comprehensive examination as determined and approved by the department.

M.S. IN COUNSELING

There are several options and emphases within the M.S. degree in Counseling. These are designed to insure the most thorough preparation for the profession and its subspecialties, as well as to provide the student a broad experience with points of view and philosophy in both theory and practice. The faculty is committed to the intellectual and social-emotional growth of the candidate as well as his or her professional preparation. Potential applicants are invited to seek appointments with faculty representatives of the three divisions to discuss their interests and philosophical orientations.

Licenses Related to Counseling Programs

The department does not issue licenses but does offer courses which are designed to meet the educational requirements of several State of California licenses. All licenses require additional experience beyond degrees, as well as written and oral exams administered by the appropriate board of the State of California.

M.F.C.C.

The Department of Educational Psychology has a graduate degree option designed to meet the requirements of Sections 4980.37, 4980.40 and subdivisions (a) and (d) of Section 4980.41, Article 1 (Regulation); Chapter 13, Marriage, Family and Child Counselors of the Business and Professions Code (State of California). Students are advised to acquire and read the laws governing MFCC licensure from the Board of Behavioral Science Examiners in Sacramento.

See your program advisor in the Educational Psychology Department for the procedures required for application for this license. State documents must be requested by the applicant from the Board of Behavioral Science Examiners, 400 R Street, Sacramento, CA 95814-6240.

Grades: If a candidate for the university recommendation for MFCC licensure has more than one "C" grade among the courses listed on the Board of Behavioral Sciences approval form, that form cannot be approved by the Designee of the Chief Academic Officer of Cal State Hayward.

Field Work Credit: Field work or internship courses represent the student's efforts and growth in the interpersonal skills basic to marriage, family, and child counseling. A student who receives a grade of "NC" (no credit) for one quarter is on probation regarding continuation in the MFCC approval track. A second grade of "NC" will disqualify the student for continuation in the MFCC option and ultimate university recommendation for the license. Further, candidates may be disqualified from this program for actions judged by the faculty to reflect unethical, unprofessional, or incompetent behavior or interpersonal skills.

Educational Psychology License

The Educational Psychology license is issued by the Board of Behavioral Sciences. A credential in School Psychology and three years of related experience are currently required.

Credentials Related to Counseling Programs

For information on credentials, see the advisors indicated below:

School Psychology (clinical child psychology division):

Dr. Theodore G. Alper, Dr. Mary diSibio, Dr. Greg Jennings, Dr. Leslie Mitchell

School Counseling (individual, family, and community counseling division):

Dr. Tom Anderson, Dr. David H. Frey, Dr. John A. Guthrie, Dr. Harry Overline

Core Requirements for M.S. in Counseling (72 units)

The M.S. degree in Counseling requires 72 units organized according to university requirements (see the [Graduate and Post-baccalaureate Studies chapter](#) in this catalog). Core requirements are established to insure that each degree candidate obtains adequate breadth in subject matter, field experiences, and research.

I. Prerequisites (15 units minimum)

A baccalaureate degree with a major in psychology or in child or human development plus a statistics course. For applicants with baccalaureates in other majors, the following courses are required and will provide adequate background for a counseling graduate program:

1. An introductory course in descriptive statistics (3 units)
2. A course in abnormal or pathological behavior (3 units)
3. A course in learning (3 units)
4. A course in developmental psychology or human or child development (3 units)
5. A course in personality theory or development (3 units)

II. Core Requirements (36-45 units)

A. Competency Area Requirements (27 units)

Students are required to demonstrate competency in the seven areas listed below. With the Dean's approval, students may substitute alternative related courses.

1. Basic theoretical and research knowledge of systems of counseling and psychotherapy (4 units)
EPSY 6750 Foundations of Counseling (4)
or EPSY 6753 Psychodynamic Psychotherapy (4)
2. Knowledge of psychological, biological, and social development over the lifespan and related psycho-therapeutic interventions (4 units)
EPSY 6302 Individual Development (4)
3. Knowledge of group counseling and psychotherapy, consultation, systems analysis and change agents in organizations (4 units)
EPSY 6762 Group Procedures and Facilitation (4)
or EPSY 6763 Advanced Group Processes (4)
4. Knowledge of theory and procedures for collecting and evaluating clinical assessment data (4 units)
EPSY 6701 Appraisal Procedures: Standardized (4)
or EPSY 6720 Theory and Assessment of Cognition (4)
5. Cultural perspectives in counseling: acquiring understanding of, and sensitivity to, individuals from diverse backgrounds and the interpersonal skills to work with them. Included are social class, ethnic, racial, sexual, and lifestyle differences (4 units)
EPSY 6752 Cross Cultural Counseling (4)
6. Ability to conduct and interpret research (4 units)
EPSY 6023 Research in Applied Behavioral Sciences (4)
7. Laws and ethical principles as they apply to the practice of professional counseling (3 units)
EPSY 6785 Law and Ethics in Counseling (3)

B. Fieldwork Requirement (9 units)

A minimum of three quarters of fieldwork is required in the application of counseling procedures and assessment techniques in fieldwork settings.

EPSY 6670 Field Work Group Supervision I (3)
EPSY 6671 Field Work Group Supervision II (3)
EPSY 6672 Field Work Group Supervision III (3)

C. *Capstone Experience (0-9 units)*

Students must successfully complete either a University Thesis, a Departmental Thesis, a Project, or a Comprehensive Examination, and should select option (1), (2), (3), or (4).

1. EPSY 6899* Project (2-5) or EPSY 6021 Thesis-Project Seminar (3)
2. EPSY 6909* Departmental Thesis (2-5) or EPSY 6021 Thesis-Project Seminar (3)
3. EPSY 6910 University Thesis (1-9) or EPSY 6021 Thesis-Project Seminar (3)
4. Comprehensive Examination (0) (The Comprehensive Examination is limited to students who are completing the combined program with Public Administration. The Comprehensive Examination consists of a written review and synthesis of the degree competencies developed by the student followed by an oral examination over these competencies. Students may take 8 units of electives in Public Administration, the content of which will constitute an area of the comprehensive exam. This choice will be made under the direction of the student's advisor and a faculty member of Public Administration.)

III. **Option/Area of Emphasis (16-24 units)**

A student may choose to complete an option and/or an area of emphasis. Options can be recognized on diplomas and transcripts, emphases will not.

A. *Options (19-24 units)*

1. Marriage, Family and Child Counseling (20-24 units)
EPSY 6025 Psychopathology of Childhood (4) or EPSY 6026 Psychopathology in Adulthood (4)
EPSY 6027 Chemical Dependence Theory (4) or EPSY 6029 Seminar in Chemical Dependency (2)
EPSY 6400 Family Psychotherapy (4)
EPSY 6403 Psychotherapy with Children (4)
EPSY 6405 Sex Counseling (4) or EPSY 6406 Seminar in Human Sexuality (2)
EPSY 6500 Cognitive Behavior Therapy (4) or EPSY 6751 Counseling and Psychotherapy Theory (4)
2. Clinical Child Psychology (19 units)
EPSY 6403 Psychotherapy with Children (4)
EPSY 6500 Cognitive Behavior Therapy (4)
EPSY 6669 Seminar in Mental Health Consultation (3)
EPSY 6911 Developmental Assessment Practicum (4)
EPSY 6912 Personality Assessment (4)

B. *Areas of Emphasis (16-24 units)*

1. Career and Adult Development (16 units)
EPSY 6710 Career and Life Style Development Theory (4)
EPSY 6711 Career-Life Planning (4)
EPSY 6722 Vocational Appraisal and Placement (4)
EPSY 6751 Counseling and Psychotherapy Theory (4)
2. Organization Behavior and Counseling (16 units)
EPSY 6751 Counseling and Psychotherapy Theory (4) or MGMT 6630 Seminar in Organization Theory (4)
EPSY 6022 Program Evaluation (3)

EPSY 6669 Seminar in Mental Health Consultation (3)
EPSY 6764 Intervention Strategies for Systems and Organizational Change (4)
EPSY 6783 Seminar: Contemporary Issues (2)

3. Wellness Counseling (17 units)
EPSY 6669 Seminar in Mental Health Consultation (3)
EPSY 6751 Counseling and Psychotherapy Theory (4)
EPSY 6781 Healthy Personality (4)
EPSY 6783 Seminar: Contemporary Issues (2)
PSYC 3420 Stress and Coping (4)
4. Higher Education Counseling (17 units)
EPSY 5610 Micro Counseling I (2)
EPSY 6711 Career-Life Planning (4)
EPSY 6751 Counseling and Psychotherapy Theory (4)
EPSY 6770 Internship (4)
EPSY 6783 Contemporary Issues (3)
5. Cross-cultural Counseling (16 units)
EPSY 6751 Counseling and Psychotherapy Theory (4)
EPSY 6754 Cross-Cultural Consultation (4)
EPSY 6764 Intervention Strategies for Systems and Organizational Change (4)

Choice of one course from the following (4 units):

ANTH 3740 Cross-Cultural Studies in Child Rearing (4); E S 3170 Mental Health in the African American Community (4); SOC 3520 Sociology of Minority Groups (4)

C. *Electives (3-20 units)*

These electives are in addition to the option or emphasis selected above. Courses listed above as alternatives under emphases may be used as electives if not otherwise chosen.

Other courses recommended as electives:

ANTH 3740 Cross-Cultural Studies in Child-Rearing (4), 3745 Cross-Cultural Studies in Human Sexuality (4); DANC 3210 Movement Analysis and Awareness (3); P E 6703 Seminar in Dance and Dance/Movement Therapy (4); EPSY 5610 Micro Counseling I (2), 5620 Micro Counseling II (2), 6028 Chemical Dependence Treatment (4), 6029 Seminar in Chemical Dependency (2), 6126 Program Design and Evaluation (3), 6131 Advanced Psycho-Educational Diagnosis (4), 6301 Pediatric Psychology (4), 6402 Relationship Counseling (4), 6404 Family Communication Networks (4), 6406 Seminar in Human Sexuality (2), 6610 Graduate Seminar I (2), 6620 Graduate Seminar II (2), 6630 Graduate Seminar III (2), 6660 Fieldwork I (2-4), 6661 Fieldwork II (2-4), 6662 Fieldwork III (2-4)

EPSY 6746 Neuropsychology of Learning Disabilities (4), 6770 Internship (2-6), 6782 Counseling Women (4), 6786 Child Abuse Assessment, Reporting & Treatment (1), 6810 Advanced Graduate Seminar I (2), 6820 Advanced Graduate Seminar II (2), 6830 Advanced Graduate Seminar III (2), 6860 Advanced Fieldwork I (2-4), 6861 Advanced Fieldwork II (2-4), 6870 Advanced Field Work Group Supervision I (3), 6871 Advanced Field Work Group Supervision II (3), 6872 Advanced Field Work Group Supervision III (3), 6880 Advanced Internship (2-6), 6894 Supervision Fieldwork I (2), 6895 Supervision Fieldwork II (2), 6896 Supervision Fieldwork III (2)

E S 3105 Afro-American Identity (4), 3170 Mental Health in the Afro-American Community (4), 3310 Native American World View (4), 4290 Latino Politics and Public Policy (4); HDEV 3800 Human Development and Interaction (4), 4004 Current Issues in Aging (4), 4325 Lesbian and Gay Lifespan Development (4), 4350 Intimate Relationships Throughout the Life Span (4), 4400

Adolescence (4)

PSYC 3420 Stress and Coping (4), 3520 Interpersonal Processes (4), 3540 Groups and Organizations (4), 4300 Motivation (4), 4320 Physiological Psychology (4), 4360 Psychopharmacology (4); SOC 3410 Sociology of the Family (4), 3411 Sociology of Sex Roles (4), SOC 3520 Sociology of Minority Groups (4), 3750 Alcohol and Drug Abuse (4); SPCH 4830 Intercultural Communication (4) SPPA 6060 Advanced Study of Language Disorders in Children (4)

Public Administration Courses: Courses selected according to the Comprehensive Examination alternative with Public Administration Department consent may be used as electives (see Core Requirements).

Program Options/Emphases and Divisions

As noted above, the M.S. degree in Counseling contains several emphases and options within the major. There are three divisions of the department involved with the counseling program. Each is comprised of faculty with similar philosophical outlooks regarding issues in counseling, including those relating to interpreting research findings, basic assumptions regarding theory and practice, and issues concerning training. Applicants are advised to consult faculty from all three divisions before applying.

The following options and emphases can be pursued within the divisions indicated:

Clinical Child Psychology Division:

- Option in Clinical Child Psychology
- Option in Marriage, Family, and Child Counseling

Clinical Applications and Family Studies:

- Option in Marriage, Family, and Child Counseling
- Emphasis in career and adult development
- Emphasis in organizational behavior and counseling
- Emphasis in wellness counseling
- Emphasis in higher education counseling
- Emphasis in cross-cultural counseling

Individual, Family, and Community Counseling:

- Option in Marriage, Family, and Child Counseling
- Emphasis in career and adult development
- Emphasis in organizational behavior and counseling
- Emphasis in wellness counseling
- Emphasis in higher education counseling
- Emphasis in cross-cultural counseling

DIVISIONS

Clinical Child Psychology

Faculty: Theodore G. Alper, Mary diSibio, Greg Jennings, Leslie H. Mitchell

Coursework offered by these faculty is designed to provide the student with the academic and clinical background for the profession of clinical child psychology, a relatively young profession representing the

convergence of two historically separate areas of concern within psychology--viz., the clinical and the developmental approaches to understanding children and adults. In keeping with these separate yet related concerns, the courses have developed around two major professional commitments: (1) a commitment to fostering and enhancing the development of better coping skills and more adaptive behaviors in children, youths, and families whose social, emotional, or intellectual needs are exceptional, and (2) a commitment to enhancing and safeguarding the adaptive development of all children and youths as individuals, as members of families, and as participants in the society as a whole. Coursework emphasizes the development of proficiencies in psychotherapy and counseling, in psychodiagnostic techniques, and in mental health consultation.

The Clinical Child Psychology division provides the only course of study in the department leading to the School Psychologist credential in the department. This division also offers the academic and fieldwork requirements for the Marriage, Family and Child Counseling License and the Educational Psychology License.

The candidate for a credential must demonstrate an increasing ability to establish constructive interpersonal relationships with persons of differing ages, cultures, and experiential backgrounds (including children who may have endured severe physical or emotional trauma) in a manner that promotes confidence, mental health, social adjustment, and learning. The candidate must demonstrate increasing ability to establish satisfactory working relationships with parents, teachers, school personnel, and other community members involved in a particular case. The candidate must also demonstrate increasing ability to apply professional methods and techniques at proficiency levels significantly higher than those generally required in academic coursework.

To insure that candidates have opportunity to develop the skills necessary for credential eligibility, specific credential competencies have been integrated into all courses required for a credential. In order to demonstrate at least minimal competencies in the required skills, therefore, the credential candidate must earn a grade of "B" or higher in each of these courses. In the event that a candidate does not achieve the criterion of "B" work in a required course, (s)he must consult immediately with the faculty, to determine a plan that will provide opportunity for remediation. Any candidate who receives a grade of "C" or lower in a required course will be classified automatically as probationary in the credential program; a second grade of "C" or lower will be considered sufficient basis for disqualification from the credential program and the Master of Counseling degree program associated with that particular area of emphasis.

Fieldwork and practical experiences, as evaluated by faculty and field supervisors, must also reflect a candidate's ability to meet the competencies specified in the program documents. Professional and interpersonal skills are the primary determinants of success in these settings. Any candidate who receives a grade of "NC" (No Credit) in a required fieldwork or internship course will be classified automatically as probationary in both the credential program and the Master of Counseling degree program associated with that particular area of emphasis. A meeting with the Coordinator of the School Psychology program will be required before additional registration in fieldwork or internship courses will be considered valid for credit toward a credential. A second grade of "NC" will be considered sufficient basis for disqualification from the credential program and the Master of Counseling degree program.

Clinical Applications and Family Studies

Faculty: Steven E. Crapo, Frederick E. Heslet (Coordinator), Alvin H. Jones, Jr., Donald P. McKillop (Coordinator), Beatrice O. Pressley, Douglas G. Sprague, Derald W. Sue.

This faculty is committed to training psychotherapists and mental health specialists in a variety of settings, such as private practice, social service agencies, schools, colleges and universities, government programs, and business and industry. Although students can add on the school counseling credential and/or any of the emphases, the main focus of this program is on the training of people who eventually want to obtain their Marriage, Family, and Child Counseling License. Students are trained for clinical work with individuals who are struggling with both normal life problems and the more severe pathologies. Training in individual, child, and family therapy, combined with actual practice in fieldwork, prepares students for advanced post-graduate internship work in clinical specializations of their choice. A number of graduates have gone on to doctoral level

work in Clinical and Counseling Psychology, or Education, after completing their master's degree in this program.

Individual, Family, and Community Counseling

Faculty: Thomas G. Anderson, David H. Frey, John A. Guthrie (Coordinator), Harry M. Overline, James D. Romero

This program is a school-agency-community training program organized in cooperation with local school districts and agencies to provide on-site services to children, their families, and the institutions which serve them. Courses, seminars, and supervision often are conducted in spaces provided at these field sites.

The curriculum and fieldwork emphasize developmental and preventive models with a complementary emphasis on treatment. Curriculum and field experiences include interventions with individuals, relationships and groups, families, organizations and communities. Students admitted to the division all pursue the M.S. degree in Counseling. In addition, the program is designed so that students can complete the educational requirements for the Marriage, Family, and Child Counseling License and all requirements for the School Counseling Credential in two years.

Advising focuses on the individual graduate student and his or her needs regarding his or her own development. An individual's expertise, experience and background are considered in the advising process. A student entering the M.S. in Counseling must meet core requirements and must develop a focus or emphasis within his or her program as a result of the advising process. Each of the available emphases can be specifically tailored to individual needs, within the overall degree requirements.

In addition, this division has recently created a special training sequence (the Bounded Curriculum) that strongly reinforces the division's philosophy by creating a community training and educational environment within which students and faculty may, together, implement that philosophy.

This division, also called counseling psychology, is perhaps best described by its articulation of a philosophy of psychology rather than by focusing on settings, populations served, or methods used. Such a philosophy has its roots in the following elements or ideas:

- The importance of viewing people and their behavior in a contextual manner because psychology itself, its practitioners, and its clients exist in a socio-cultural context influenced by variables of culture, ethnicity, gender, sexual orientation, age, and socio-historical perspective.
- The value of an interactionist or transactional perspective to inform those views, thereby necessitating training practices and research strategies that provide adequate attention to both intrapsychic and environmental processes.
- A focus on development across the lifespan with attention to diverse developmental issues and paths, building upon the developmental models which form the cornerstone of counseling psychology and generating new techniques for application in three primary service modes -- prevention, developmental enhancement, and remediation.
- An understanding of career development--the areas of work, work identity, leisure, and retirement--as related to human productivity, satisfaction with personal lifestyle, and socio-organizational health.
- A perspective that values goals which relate to the empowerment of individuals to gain mastery over their own lives and values methods which focus on strengths, adaptive strategies, and strategies for change such as advocacy, political involvement, and direct teaching of skills relevant to promoting the psychological health of individuals, groups, and systems.
- The value of programmatic research as having potential for both forming and informing the profession, for

discerning appropriately effective intervention strategies, and particularly for investigating client and therapist variables as influences on counseling processes and outcomes.

Special coordinators within the Individual, Family, and Community Counseling Division:

School Counseling Credential:

Tom Anderson
David H. Frey
John A. Guthrie
Harry Overline

Higher Education Counseling Emphasis:

Daniel Romero

Joint cooperative program with Public Administration:

David H. Frey

CREDENTIALS IN COUNSELING

Pupil Personnel Credential: School Counseling Specialization (76-87 units)

This program is offered by the Clinical Applications and Family Studies Division and the Individual, Family, and Community Counseling Division.

The Pupil Personnel Credential is required of counselors in the public schools, pre-school through twelfth grade. To obtain approval from our department, a student must complete the M.S. in Counseling degree, or equivalent, and cover the following competencies legislated by the State of California:

1. Student based methods for facilitating human development.
2. Institution-oriented methods for facilitating the student's human development.
3. Remedial development techniques.
4. Laws relating to children.
5. Assessment techniques.
6. Cross-cultural awareness.
7. Career development.
8. Research and current development.

Through an agreement with the State, the department has divided these competencies into 55 sub-competencies which can be met by experience, coursework, and field work. The field experience must be in both the elementary and secondary school levels and in a multicultural setting. Candidates for the credential document competency through a system of reviews with advisors and the preparation of a competency portfolio. Details on the competency requirements and procedures for completing the process are on reference in the department office.

Since the credential is based on competencies rather than courses, the length of programs will vary. For a student without experience and coursework, it will typically necessitate a two-year full-time commitment. Part-time students are also admitted.

Since the competency approach to a credential program means an individual can meet the requirements in a number of ways, the following credential requirements represent a maximum coursework approach.

The M.S. in Counseling (or an acceptable equivalent) is required.

I. Prerequisites (15 units)

The prerequisites are the same as for the M.S. in Counseling. (Prerequisites are not included in the 76-87 units required for the Pupil Personnel Credential.) Coursework as follows:

- Learning (3)
- Statistics (3)
- Personality (3)
- Abnormal psychology (3)
- Human, child, or adolescent development (3)

II. Course Requirements (60 units)

- EPSY 6023 Research in Applied Behavioral Sciences (4)
- EPSY 6121 Counseling Exceptional Children (4)
- EPSY 6302 Individual Development (4)
- EPSY 6400 Family Therapy (4)
- EPSY 6403 Child Therapy (4)
- EPSY 6669 Mental Health Consultation (3)
- EPSY 6700 Advanced Educational Psychology (4)
- EPSY 6701 Appraisal Procedure: Standardized (4)
- EPSY 6711 Career-Life Planning (4)
- EPSY 6750 Foundations of Counseling (4)
- EPSY 6751 Psychotherapy Theory (4)
- EPSY 6752 Cross-Cultural Counseling (4)
- EPSY 6762 Group Theory and Procedure (4)
- EPSY 6764 Systems Organizational Change (4)
- EPSY 6765 Psychological & Counseling Services (2)
- EPSY 6785 Law and Ethics in Counseling (3)

III. Fieldwork (15-18 units)

- EPSY 6670 Fieldwork Group Supervision I (3)
- EPSY 6671 Fieldwork Group Supervision II (3)
- EPSY 6672 Fieldwork Group Supervision III (3)

Select 6 to 9 units from (A), (B), or (C)

- A. EPSY 6860, 6861, 6862 Advanced Fieldwork I, II, III (2-4)
- B. EPSY 6870, 6871, 6872 Advanced Fieldwork Group Supervision I, II, III (3)
- C. EPSY 6880 Advanced Internship (2-6)

IV. Capstone Experience (1-9 units)

Choose (A) or (B)

- A. EPSY 6021 Thesis/Project Seminar (3) or EPSY 6899 Project (2-5)
- B. EPSY 6909 Departmental Thesis (2-5) or EPSY 6910 University Thesis (1-9)

Pupil Personnel Credential: School Counseling and School Psychology Specializations

This combined credential program is offered by the Clinical Child Psychology Division. (Note: This program was discontinued and replaced with the Internship Credential in School Psychology, Fall 1996.)

The school psychologist is a clinical child psychologist who functions within the school organization. The school psychologist provides consultation and services for enhancement of the cognitive, social and emotional development of children and adolescents within the school environment; provides programs for the development of the staff; has responsibility for the prevention, assessment, and remediation of the

behavioral and learning difficulties of children; and often becomes the primary resource for the emotionally troubled children and their parents. The school psychologist serves the schools as the expert in behavioral measurement, program evaluation, and research.

The program for the school psychologist credential is a three-year course of graduate study and field experience. During the first year of study, the candidate will take the academic courses and field practice which will lead to a School Counseling Credential. The School Counseling Credential is a prerequisite for the internship for the School Psychology Credential. Those candidates who already possess the School Counseling Credential must, nevertheless, meet the requirements of this program; the program of study for the candidate will be determined in advisement with the Coordinator of the Clinical Child Psychology Division. The student whose sole goal is a school counseling credential should not apply to the Clinical Child Psychology Division.

School Counseling Specialization (63 units)

Prerequisites are not included in the 63 units required for the School Counseling Credential.

I. Prerequisites (18 units)

A baccalaureate degree and the courses listed below:

1. An introduction to statistics (3)
2. Abnormal Psychology (3)
3. Developmental Psychology (3)
4. Learning Theory (3)
5. Personality Theory (3)
6. Psychological Tests and Measurements (3)

II. Required Courses (54 units)

- EPSY 5610 Microcounseling (2)
- EPSY 6023 Research in Applied Behavioral Sciences (4)
- EPSY 6301 Pediatric Psychology (4)
- EPSY 6302 Individual Development (4)
- EPSY 6400 Family Psychotherapy (4)
- EPSY 6403 Psychotherapy with Children (4)
- EPSY 6500 Cognitive Behavioral Therapy (4)
- EPSY 6610 Graduate Seminar I (2)
- EPSY 6620 Graduate Seminar II (2)
- EPSY 6630 Graduate Seminar III (2)
- EPSY 6720 Theory and Assessment of Cognition (4)
- EPSY 6752 Cross-Cultural Counseling (4)
- EPSY 6753 Psychodynamic Psychotherapy (4)
- EPSY 6762 Group Procedures and Facilitation (4)
- EPSY 6765 Psychological and Counseling Services (2)
- EPSY 6785 Law and Ethics in Counseling (3)
- EPSY 6786 Child Abuse Assessment (1)

III. Required Fieldwork (9 units)

- EPSY 6660, 6661, 6662 Fieldwork I, II, III (3 units each)
or EPSY 6670, 6671, 6672 Fieldwork Group Supervision I, II, III (3 units each)

Note: Changes in the requirements for the School Counseling and the School Psychologist Specializations frequently occur. The faculty will advise the candidate of these changes; the student is encouraged to become informed through one's advisor.

School Psychology Specialization (113-117 units)

This program includes the 63 units required in the School Counseling Specialization described in the

previous section. The program for the school psychologist credential is a three-year program that includes at least one summer quarter of study. It is an intensive graduate program in which the practica, fieldwork and internship experiences are required and integrated into the academic coursework. Faculty supervision is provided at all levels of professional training. During the first year, the candidate will receive training in psychotherapeutic techniques with children, adults, and families in the Community Counseling Center on campus for one-half day per week and in a public school setting, or its equivalent, for two days per week. The second year requires an internship in the public school setting or selected community settings for two days per week. The third year of professional preparation requires a minimum of three days a week internship in a public school setting. The intern usually receives some remuneration from the public school district during this third year of internship; the remuneration is negotiated by the candidate with the school district. The three years of professional training provides opportunity for specialization within the field, as in infancy and early childhood, adolescence, severely handicapped, preschool, etc.

The School Psychology Specialization meets the educational requirements for the Educational Psychology license. This license enables the candidate to engage in private practice after three years of experience and successful completion of the State examination. The School Psychology Specialization is approved by the Commission of Teacher Credentialing (CTC) of California, and the National Council for the Accreditation of Teacher Education (NCATE). Also the National Association of School Psychology (NASP) has given provisional approval.

The program also includes the academic requirements for the Marriage, Family, and Child Counseling license. The candidate should indicate the dual course of study upon entrance into the program.

Requirements of the program

The candidate must satisfy all credential competency requirements as defined in the approved CTC credential document. This document is available in the University Library for the candidates. Specifically, the candidate must attain a grade of "B" or higher in the prerequisite and required courses. If a grade of "B" is not earned, the candidate must consult immediately with the appropriate faculty to determine the academic work necessary to achieve competency level. Two grades of "C" or lower in required courses are sufficient bases for disqualification from the credential program and from the Clinical Child Psychology option. The faculty is responsible for the evaluation of the candidates' abilities to relate successfully within the scope of professional responsibilities, activities and ethics. If the candidate cannot relate professionally in a manner that promotes the welfare of others or does not complete successfully the activities required in the field setting, the candidate will receive a "NC" grade in the fieldwork course; this "NC" grade automatically places the candidate on probationary status. A second grade of "NC" is considered a sufficient basis for with the disqualification from the credential program and from the Master of Counseling degree in the Clinical Child Psychology option. It is the responsibility of the candidate to initiate a meeting with the coordinator and the faculty before further registration in coursework is permissible. It is seldom that a candidate must be disqualified from the program of studies, and any student who is concerned about his/her progress should consult the faculty advisor promptly.

Prerequisites are not included in the 113-117 units required for the School Psychology Credential.

I. Prerequisites (18 units)

A baccalaureate degree and the courses listed below:

1. An introduction to statistics (3)
2. Abnormal Psychology (3)
3. Developmental Psychology (3)
4. Learning Theory (3)
5. Personality Theory (3)
6. Psychological Tests and Measurements (3)

II. Required Courses (93 units)

EPSY 5610 Microcounseling (2)

EPSY 6022 Program Evaluation (3)
EPSY 6023 Research in Applied Behavioral Sciences (4)
EPSY 6025 Psychopathology of Childhood (4)
EPSY 6029 Chemical Dependency Seminar (2)
EPSY 6301 Pediatric Psychology (4)
EPSY 6302 Individual Development (4)
EPSY 6400 Family Psychotherapy (4)
EPSY 6403 Psychotherapy with Children (4)
EPSY 6500 Cognitive Behavior Therapy (4)
EPSY 6610 Graduate Seminar I (2)
EPSY 6620 Graduate Seminar II (2)
EPSY 6630 Graduate Seminary III (2)
EPSY 6669 Mental Health Consultation (3)
EPSY 6670 Group Fieldwork Supervision I (3)
EPSY 6671 Group Fieldwork Supervision II (3)
EPSY 6672 Group Fieldwork Supervision III (3)
EPSY 6720 Cognitive Theory and Assessment (4)
EPSY 6746 Neuropsychology of Learning Disabilities (4)
EPSY 6752 Cross-Cultural Counseling (4)
EPSY 6753 Psychodynamic Psychotherapy (4)
EPSY 6762 Group Procedures and Facilitation (4)
EPSY 6765 Psychological and Counseling Services (2)
EPSY 6785 Law and Ethics of Counseling (3)
EPSY 6786 Child Abuse Assessment (1)
EPSY 6810 Advanced Graduate Seminar I (2)
EPSY 6820 Advanced Graduate Seminar II (2)
EPSY 6830 Advanced Graduate Seminar III (2)
EPSY 6911 Developmental Assessment Practicum (4)
EPSY 6912 Personality Assessment (4)

III. *Required Fieldwork (15 units)*

EPSY 6880 Advanced Internship (Take three times -- 5 units each)

IV. *Required Thesis (5-9 units)*

EPSY 6021 Thesis/Project Seminar (Take three times -- 3 units each) *or*
Complete five to nine units from the following:

EPSY 6909 Departmental Thesis (2-5) or EPSY 6910 University Theses (1-9)

M.S. IN SPECIAL EDUCATION

Faculty: Jacki L. Anderson (Coordinator, Severely Handicapped), Ann T. Halvorsen, Phyllis G. Kaplan (Coordinator, Learning Handicapped), Steven L. Williams

The Special Education program prepares its students for careers in direct teaching and for leadership roles in Special Education. Programs are offered which lead to the Master of Science degree and/or to the Learning Handicapped and Severely Handicapped Credentials. This division also offers a certificate program in the area of Resource Specialist.

The emphasis is on providing students with a wide range of practical methods for enhancing the lives of individuals with exceptional needs. To this end, coursework is taught by successful practitioners in the field. Also, the programs provide extensive supervised fieldwork in settings that are appropriate to each student's professional goals.

Since Fall quarter, 1985, the Learning Handicapped Credential program has also been offered at the Cal State Hayward Contra Costa Campus.

Note: All applicants for a Credential in Special Education must possess the basic teaching credential authorization from the California Commission for Teacher Credentialing. They must possess, or be concurrently enrolled in a program for, the Multiple Subject or Single Subject Teaching Credentials. Individuals who do not possess the basic teaching credential may enter a Special Education Credential program but should see a Teacher Education advisor about concurrent enrollment in Teacher Education.

The number of units required for the degree only is 45-47 units; the credential only is 59 units; the degree and credential is 60-69 units.

I. Prerequisite Course (4 units)

EPSY 5021 Exceptional Individual (4)

II. Required Courses

Generic Core (18 units)

EPSY 5121 Counseling Exceptional Children (4)

EPSY 6124 Introduction to Psycho-Educational Assessment (4)

EPSY 6126 Program Design and Evaluation (3)

EPSY 6129 Experimental Education (4)

EPSY 6130 Management, Consultation, and Communication (3)

Specialization Programs: Choose (A) or (B)

A. Learning Handicapped Option Complete (1) or (2)

1. Degree (19 units)

EPSY 5125** Methods, Materials, and Media for Exceptional Individuals (3)

EPSY 6127 Instructional Strategies (4)

EPSY 6128 Instructional Strategies Fieldwork (3)

2. Credential (34 units)

EPSY 6132 Advanced Psycho-educational Diagnosis Fieldwork (3)

EPSY 6131 Advanced Psycho-educational Diagnosis (4)

EPSY 6133 Specialist Competencies I (LH) (4)

EPSY 6134 Specialist Competencies II (LH) (4)

EPSY 6800** Student Teaching (LH) (10)

EPSY 6810** Advanced Graduate Seminar I (2)

B. Severely Handicapped Option

(Degree 19 units) (Credential 34 units)

EPSY 5136** Curriculum for the Severely Handicapped (3)

EPSY 6137 Teaching Severely Handicapped (4)

EPSY 6140 Specialist Competencies I (SH) (4)

EPSY 6141 Specialist Competencies II (SH) (4)

EPSY 6142 Assessment of Severely Handicapped (4)

EPSY 6801** Student Teaching (SH) (10)

EPSY 6820** Advanced Graduate Seminar II (2)

EPSY 6860 Advanced Fieldwork I (3)

EPSY 6870 Advanced Fieldwork Group Supervision I (3)

III. Additional Master's Degree Requirements (8-10 units)

EPSY 6023 Research in Applied Behavioral Sciences (4)

Select four to six units from the following:

Special Education Resource Specialist Certificate of Competence (16-17 units)

In addition to the M.S. and Credential programs, the Special Education faculty offers a Special Education Resource Specialist Certificate of Competence program approved by the Commission on Teacher Credentialing. This program is designed to provide knowledge and stated competencies for individuals who already hold a credential in Special Education to become Resource Specialists in schools.

To be admitted into the Special Education Resource Specialist Certificate of Competence program, the candidate must: (1) possess a clear Specialist Credential in Special Education; (2) have been accepted as an "Unclassified Post-baccalaureate" or "Classified Graduate" student by the university; (3) have at least 3 years of appropriate teaching experience; and (4) have been selected by the Special Education Option admission procedures.

I. Required Coursework

EPSY 5610 Microcounseling I (2)

EPSY 5620 Microcounseling II (2)

EPSY 6139 Legal Rights of the Handicapped (3)

EPSY 6501 Behavior Modification of the Learning Process (4)

EPSY 6670 Fieldwork Group Supervision I (3)

EPSY 6783 Contemporary Issues (2-3)

M.S. IN EDUCATION

Faculty: Donald J. Brown (Coordinator), Thomas E. Whalen (Advisor)

Option in Educational and Psychological Studies

This professional area is designed to provide a flexible program for students with diverse interests. Because there are fewer required courses than in the other programs within this department, it is possible to tailor one's individual program through the use of elective courses. This program requires only 45 units so that the student is able to complete the program in one academic year.

Students entering this program may have several objectives. These include:

1. Improving academic skills prior to enrolling in a doctoral program.
2. Re-entering the academic community at the graduate level and being somewhat undecided about specific career goals.
3. Exploring the general field of educational psychology; becoming proficient in the use of computers to analyze research data; entrance to a career as a research worker or an evaluation specialist.
4. Upgrading skills in order to broaden career opportunities.
5. Obtaining an interdisciplinary graduate education.

In order to supplement the above program aims, field work experiences are available, but not required. The individualized approach allows the student on-the-job experience under the supervision of qualified departmental faculty. Examples of field work experiences are involvement in research projects, designing evaluation procedures, counseling in a non-clinical setting, working with various student personnel officers in higher education, developing assessment instruments for private industry, and interviewing and data analyses for research firms. The number of field work assignments and the placement will vary with the student's interests and professional goals.

Surveys of past graduates reflect the versatility of the program in terms of possible job placements. Our graduates are employed in private business, city and county agencies, and higher education and others are enrolled in doctoral programs.

Students interested in applying to this program should follow the regulations pertaining to departmental admission, i.e., completion of three prerequisites (human development, statistics, and learning), the university "Graduate and Post-baccalaureate Application," the "Departmental Application for Admission," three personal references, a personal statement, and either the Miller's Analogies Test (MAT) or the Graduate Record Examination (GRE). Students whose completed applications are received by April 15 will be contacted during Spring quarter.

I. Prerequisites

Statistics (STAT 1000 or 3010 or other comparable course)
Learning Theory (PSYC 4200 or 4210 or other comparable course)
Human Development (PSYC 4420 or HDEV 3800 or TED 5021)

II. Required Courses (27 units)

EPSY 6021 Thesis-Project Seminar (3)
EPSY 6023 Research in Applied Behavioral Sciences (4)
EPSY 6024 Design of Educational Research (4)
EPSY 6700 Advanced Educational Psychology (4)
EPSY 6701 Appraisal Procedures: Standardized (4)
EPSY 6702 Appraisal Procedures: Non-Standardized (4)
EPSY 6720 Theory and Assessment of Cognition (4)

Complete 2-9 units from the following:

EPSY 6910 University Thesis (3-9) or EPSY 6909 (2-5) Departmental Thesis (2-5)
or combination of EPSY 6021 (3) and EPSY 6910 (1-6) (maximum 9 units)
or combination of EPSY 6021 (3) and EPSY 6909 (1-2) (maximum 5 units)

III. Electives (9-16 units)

Elective courses may be selected from within this department or from other departments of the university. With the many possible elective courses available, students are able to take those courses that most clearly reflect their career goals.

Scheduling of Classes

All core courses are scheduled on a Tuesday-Thursday daytime basis. Thus, it is possible for students to arrange a two-day-a-week schedule on campus. This makes it possible to maintain a part-time job while pursuing the degree as many past students have done successfully. Many electives are available at late afternoon or evening times.

POST-BACCALAUREATE COURSES

5010 Computers in Education (3)

Introduction to the use of computers in education and related fields. History, design, theory, and nomenclature of computers. Lab experience using microcomputers. Use and evaluation of commercial software for education and associated professional activities. Prerequisites: graduate standing or consent of instructor.

5021 The Exceptional Individual (4)

Characteristics of children who deviate physically, mentally, socially, or psychologically from normal

individuals. Methods of identification and the development of remediation programs designed to meet the exceptionalities encountered.

5121 Counseling Exceptional Children (4)

Clinical applications of counseling skills specifically related to the physical, mental, social, and psychological attributes of exceptional children. Prerequisite: EPSY 5021. (Y)

5125 Methods, Materials and Media for Exceptional Individuals (3)

Instruction in and evaluation of teaching methods, materials and media for exceptional individuals. Prerequisite: EPSY 5021. (Y)

5136 Curriculum for Severely Handicapped (3)

Specialized curriculum procedures for severely disabled and multiply handicapped. The unique problems encountered by teachers of severely physically handicapped, severely emotionally disturbed, and severely multiply handicapped students. Prerequisite: EPSY 5021.

5500 Developing Programs for Special Students in Regular Classrooms (4)

(See [TED 5500](#) for course description.)

5610 Micro Counseling I (2)

Development and practice of the basic skills of counseling, especially the skills of listening. Use of brief videotaped counseling sessions ("microcounseling"). Students will role-play to observe, analyze, and evaluate techniques of counseling.

5620 Micro Counseling II (2)

Development of the counselor's ability to influence others. Use of brief videotaped counseling sessions ("microcounseling"). Students will role-play to observe, analyze, and evaluate techniques of counseling. Prerequisite: EPSY 5610.

5767 Film in Counseling Psychology (2)

Selected modern film presentations. Issues include wellness and illness, social and existential issues which transcend common diagnostic formulations as explored by film and masters of therapeutic interventions.

5900 Independent Study (1-4)

GRADUATE COURSES

6021 Thesis-Project Seminar (3)

(See description of EPSY 6899, 6909, 6910 for definitions of project, departmental thesis, university thesis.) Group supervision approach to completion of project or thesis. Prerequisites: "Classified Graduate" student, permission of instructor. May be repeated for credit. (A)

6022 Program Evaluation (3)

Theory and procedures for designing and conducting formative and summative evaluations of educational and human service programs. Prerequisite: EPSY 6023, or TED 6020, or SAS 6020, or consent of instructor. (Y)

6023 Research in Applied Behavioral Sciences (4)

Survey of research philosophy and methods for conducting studies in settings employing counselors, educators, and psychologists. Prerequisite: EPSY 6701 or instructor's permission. Three hrs. seminar, 2 hrs. act. (Y)

6024 Design of Educational Research (4)

Theory and procedures of experimental design as applied to problems of education. Prerequisite: EPSY 6023. Three hrs. seminar, 2 hrs. act. (Y)

6025 Psychopathology of Childhood (4)

Seminar in developmental psychopathology; advanced case study, differential diagnosis, assessment procedures, treatment and placements. Prerequisites: EPSY 6720 and EPSY 6912. (Y)

6026 Psychopathology in Adulthood (4)

Theoretical and clinical approaches to conceptualization, differential diagnosis, and assessment of psychopathology through adulthood. Application of theories of psychopathology to counseling and psychotherapy. Prerequisite: consent of instructor. (Y)

6027 Chemical Dependence Theory (4)

Theory and research relating to chemical dependence as a variable in counseling. Focus on concepts of dependence, the disease model, identification, assessment, and family dynamics. Covers addiction to alcohol and other mood altering chemicals. (Y)

6028 Chemical Dependence Treatment (4)

Treatment of chemical dependence in counseling. Focus on therapeutic intervention, treatment modalities, and recovery issues as they relate to the chemically dependent client and family members. Prerequisite: EPSY 6027, or consent of instructor. (Y)

6029 Seminar in Chemical Dependency (2)

Survey of concepts of alcoholism and other chemical substance dependency. Assessment and treatment modalities applied to addictive disorders. (Y)

6099 Multimedia/Hypermedia (4)

(See [TED 6099](#) for course description.)

6124 Introduction to Psycho-Educational Diagnosis (4)

Current principles, procedures, techniques and instruments in assessing learning and behavioral patterns in exceptional children. Prerequisite: EPSY 5021. (Y)

6126 Program Design and Evaluation (3)

Designing, evaluating and reporting teaching and learning sequences for exceptional children in terms of behavioral and instructional objectives. Prerequisite: EPSY 5021. (Y)

6127 Instructional Strategies (4)

Instructional techniques, methods, systems, materials, precision management and behavior modification techniques used in instructing exceptional individuals. Concurrent enrollment in EPSY 6128 required. Prerequisite: EPSY 6124. (Y)

6128 Instructional Strategies Fieldwork (3)

Fieldwork in devising and utilizing instructional techniques, methods and materials used in instructing exceptional children. Concurrent enrollment in EPSY 6127 required. Prerequisite: EPSY 6124. Six hrs. field placement. (Y)

6129 Experimental Education (4)

A review of research on salient problems in Special Education with an emphasis on integrating research theories into curriculum planning.

6130 Management, Consultation and Communications (3)

An examination of management systems for delivering services to exceptional individuals. Techniques and processes of consultation and communication with school and community personnel. Prerequisites: EPSY

6127 and 6128. (Y)

6131 Advanced Psycho-Educational Diagnosis (4)

Clinical application of diagnostic skills. Emphasis on differential diagnosis in the areas of physiological, intellectual, and social-emotional adjustment of exceptional individuals. Prerequisite: EPSY 6124. Concurrent enrollment in EPSY 6132. (Y)

6132 Advanced Psycho-Educational Diagnosis Fieldwork (3)

Development of diagnostic skills in differentially diagnosing and developing educational programs for exceptional individuals. Prerequisite: EPSY 6127. Concurrent enrollment in EPSY 6131. Six hrs. field placement. (Y)

6133 Specialist Competencies I (LH) (4)

Integration of principles, procedures and techniques with the unique cognitive and affective needs of exceptional individuals. This course is exclusively for the Learning Handicapped specialization.

Prerequisite: EPSY 6132. (Y)

6134 Specialist Competencies II (LH) (4)

Integration of principles, procedures and techniques with the unique cognitive and affective needs of exceptional individuals. This course is exclusively for the Learning Handicapped specialization.

Prerequisite: EPSY 6133. (Y)

6135 Exceptional and Normal Infant (3)

A review of physiological, sociological, deprivational and psychological factors relating to the development of normal and exceptional infants and techniques for enhancing infant development.

Prerequisite: EPSY 5021. (Y)

6137 Teaching Severely Handicapped (4)

Methods of instruction for severely handicapped. Focus upon the technology of instruction for severely impaired students. Prerequisite: EPSY 5021.

6139 Legal Rights of the Handicapped (3)

Examine legal rights of handicapped and normal individuals as they exist and are developing under Federal, State and Local law. Prerequisite: EPSY 5021. (Y)

6140 Specialist Competencies I (SH) (4)

Extended application of course material covered in Specialist Competencies I with emphasis on organization of the instructional program in accord with personalized and individualized training objectives. This course is exclusively for the Severely Handicapped specialization. Prerequisite: EPSY 6132. (Y)

6141 Specialist Competencies II (SH) (4)

Extended application of course material covered in Specialist Competencies I with emphasis on organization of the instructional program in accord with personalized and individualized learning objectives. This course is exclusively for the Severely Handicapped specialization. Prerequisite: EPSY 6140. (Y)

6142 Assessment of Severely Handicapped (4)

Screening, diagnostic, and prescriptive assessment instruments and procedures appropriate for severely retarded, severely emotionally disturbed, and severely multiply handicapped students. Focuses upon instruments and procedures for assessing severely handicapped students. Prerequisites: EPSY 5021, 6124.

6143 Family/School Collaboration (4)

Strategies to facilitate collaboration between the school system and families in educating students with disabilities. Family systems theory and its practical application to encourage and support collaboration in

local communities and schools. Prerequisites: EPSY 5021, 5136. (Y)

6144 Inclusive Education: School and Community (4)

Strategies for including students with severe disabilities in integrated school and community settings. Emphasis on functional programming and interactions and friendships with non-disabled peers, with practical applications in local schools. Prerequisites: EPSY 5021, 5136. (W)

6145 Transition to Supported Living/Work (4)

Strategies to facilitate transition from school to post-school services. Emphasis on legally required transition plans and terms, and individualized, supported living and integrated work. Prerequisites: EPSY 5021, 5136, and 6137. (Sp)

6301 Pediatric Psychology (4)

Clinical issues in the growth and maturation of cognition, psychomotor performance, and ego development; anomalies of development and integration and related problems of social-emotional adjustment. Emphasis on the period of infancy and childhood. Prerequisite: consent of instructor. (W)

6302 Individual Development (4)

Theory and research covering individual growth over the life span. Emphasis on the interaction of biological and social factors and their psychological consequences, especially as to definition of normal crises and related levels of therapeutic intervention. (Y)

6400 Family Psychotherapy (4)

Discussion and activities in psychotherapeutic techniques. Theory and research dealing with family interaction and communication. Diagnostic and intervention methods for dysfunctional family systems. Three hrs. seminar, 2 hrs. act. (Y)

6402 Relationship Counseling (4)

Discussion of theory pertaining to the psychology of relationships, such as friendship, dating, and marriage. Investigation and activities pertaining to methods of evaluating and intervening in problems of dyadic relationships, communication, and social adjustment. Prerequisite: EPSY 6750 or instructor's permission. Three hrs. seminar, 2 hrs. act. (Y)

6403 Psychotherapy with Children (4)

Discussion of theory pertaining to psychotherapeutic interventions with children. Emphasis on developmental psychopathology and its relationship to family interaction. Prerequisite: EPSY 6400. (Y)

6404 Family Communication Networks (4)

Clinical problems in psychotherapy with families. Activities include analysis of communication systems, case management, and therapeutic intervention in family systems. Prerequisite: EPSY 6400. Three hrs. seminar, 2 hrs. act. (Y)

6405 Sex Counseling (4)

Investigation of human sexuality, sexual identity, and sexual problems with emphasis on counseling methods appropriate to promoting positive sexual functioning. Activities include films and class involvement in counseling methods. Prerequisite: EPSY 6750, or instructor's permission. Three hrs. seminar, 2 hrs. act. (Y)

6406 Seminar in Human Sexuality (2)

Physiological, psychological, social and cultural variables as they affect sexual identity, sexual behavior and sexual disorders. Clinical treatment of sexual problems. Prerequisites: EPSY 6750; instructor's permission.

6500 Cognitive Behavior Therapy (4)

Principles and practice of cognitive and behavior therapies, including meta models and transformational

linguistics of communication theories. Emphasis on possibilities for integrated therapeutic approach. (F)

6501 Behavior Modification of the Learning Process (3)

Seminar on prescriptions for individuals and groups; precise task analysis and concept programming, self-pacing, contingency management, and continuous evaluation. Prerequisite: EPSY 6500. (Y)

6600 Clinic Rounds (1)

Regularly scheduled seminar with Director of Community Counseling Center. Discussion of procedures, good practices, assignment of cases, and Center ethics, rules, responsibilities. Required of all graduate students assigned as trainees to the Center. CR/NC grading only. May be repeated for up to 8 units.

6610, 6620, 6630 Graduate Seminar I, II, III (2, 2, 2)

Introductory considerations of application of theory and current research to professional settings; problems in use of professional techniques and methods. Prerequisite: concurrent registration in fieldwork. (Y)

6660, 6661, 6662 Fieldwork I, II, III (2-4)

Individual supervision of assigned fieldwork. Prerequisite: departmental approval. CR/NC grading only (A).

6669 Seminar in Mental Health Consultation (3)

Theory and techniques of mental health consultation. Consideration of institutional and group factors as they affect and condition the adjustment problems of individuals. Techniques and strategies available to psychologists for affecting changes in the mental health climate of schools. Prerequisite: EPSY 6861. (Y)

6670, 6671, 6672 Field Work Group Supervision I, II, III (3, 3, 3)

Group supervision of assigned field work. Prerequisite: approval of instructor. CR/NC grading only. (A)

6700 Advanced Education Psychology (4)

Systematic analysis of general principles of motivation and learning as applied to educational processes. Prerequisite: upper division learning course. (Y)

6701 Appraisal Procedures: Standardized (4)

Seminar in measurement theory applied to the development and evaluation of standardized tests used in counseling. Activity includes administration and supervision of above instruments. A miscellaneous course fee will be charged for materials. Please consult the quarterly *Class Schedule* for the current fee. Prerequisites: STAT 1000 or 1100, or equivalent. Three hrs. seminar, 2 hrs. act. (Y)

6702 Appraisal Procedures: Non-Standardized (4)

Theory and research on scales, questionnaires, and other non-standardized tests for assessing and predicting behavior. Activity to include administration, scoring, and interpretation. Prerequisite: STAT 1000 or 1100, or equivalent). Three hrs. seminar, 2 hrs. act. (Y)

6710 Career and Life Style Development Theory (4)

Examination of theories of vocational and a vocational choice and development with emphasis on the cultural, psychological and sociological antecedents and consequences. Prerequisite: "Classified Graduate" status in department. (Y)

6711 Career-Life Planning (4)

Career-Life planning counseling techniques; information sources; development of career libraries and centers, employability development techniques; activities involving observation and participation in career counseling and information. Prerequisite: EPSY 6750. Three hrs. seminar, 2 hrs. act. (Y)

6720 Theory and Assessment of Cognition (4)

Concepts of intelligence and their use in mental testing. Major types of individually administered intelligence tests, their uses and interpretation. A miscellaneous course fee will be charged for materials.

Please consult the quarterly *Class Schedule* for the current fee. Prerequisite: EPSY 6701 or equivalent. (Y)

6722 Vocational Appraisal and Placement (4)

Clinical instruction in the psychological processes of relating data gained from specialized testing to the counseling of individuals for effective performance in the labor market. A miscellaneous course fee will be charged for materials. Please consult the quarterly *Class Schedule* for the current fee. Prerequisite: EPSY 6701. Two hrs. seminar, 6 hrs. lab. (Alt. Y)

6746 Neuropsychology of Learning Disabilities (4)

Diagnosis and rehabilitation of learning disabilities emphasizing a neuropsychological approach. A miscellaneous course fee will be charged for materials. Please consult the quarterly *Class Schedule* for the current fee. Prerequisite: course work in cognition and development assessment or consent of instructor. Three hrs. seminar, 3 hrs. lab. (Sp)

6750 Foundations of Counseling (4)

The principles and concepts of counseling, including communication dynamics, intervention techniques, and development of a personal theory of counseling. Prerequisite: "Classified Graduate" status in department or consent of instructor. Three hrs. lect., 2 hrs. act. (Y)

6751 Counseling and Psychotherapy Theory (4)

Examination of current theories of counseling and psychotherapy; development of individual counseling approach. Prerequisite: EPSY 6750. Three hrs. lect., 2 hrs. act. (Y)

6752 Cross Cultural Counseling (4)

Focus on cross-cultural counseling and psychotherapy, cultural values and personality formation; value orientation inherent in counseling and psychotherapy; psychological effects of cultural racism; effects of sex roles and life styles within different cultures. Three hrs. lect. plus one three-day workshop. (A)

6753 Psychodynamic Psychotherapy (4)

Clinical application of psychodynamic theories and procedures. Emphasis on contemporary developments in ego theory, object-relation theory, and psycho-social development. (F)

6754 Cross-Cultural Consultation (4)

Consultation with schools, agencies, institutions concerning emotional issues in mixed cultural/ethnic situations. Clinical application of current theories, research in counseling and psychotherapy. Reading, examination of case materials. Prerequisite: EPSY 6752 or consent of instructor. (Y)

6756 Brief Psychotherapy: Dynamic and Strategies (2)

Principles, concepts, and techniques of brief psychotherapy with emphasis on psychodynamic and strategic approaches. (Y)

6757 Gender Issues in Counseling (2)

Behavior, values, attitudes, biases, and beliefs in sex roles and their impact in counseling. Role playing and micro-counseling used to illustrate concepts. Prerequisite: EPSY 6750 or instructor's permission. (Y)

6758 Practicum in Counseling (3)

Introductory learning experience to prepare graduate students for professional counseling in clinical settings. Students will receive information, practice, counseling skills and develop a professional perspective. Repeatable for one additional quarter for credit. (A)

6760 Counseling and Administration in Higher Education (4)

Theory and practice of counseling in higher education. Organization and administration of counseling services in higher education. Current and future trends impacting counseling in higher education.

6761 History and Philosophy of Higher Education Student Services (4)

The history and philosophy of student services in higher education.

6762 Group Procedures and Facilitation (4)

Theories, principles of group dynamics and processes facilitating individual, small group, and organizational change. Interpersonal skills in group process. Clinical analysis of actual group experiences. Prerequisite: EPSY 6750 or PUAD 6812 or instructor's consent. Not open to students with credit for PUAD 6762. (Y)

6763 Advanced Group Processes (4)

Training in the methods of leading counseling groups. Examination of principles of group facilitation and practice in laboratory setting. Three hrs. seminar, 3 hrs. lab. (Y)

6764 Intervention Strategies for Systems and Organizational Change (4)

Facilitator's role in organizational, systems change: schools, agencies, industry. Diagnosis, intervention strategies for planned or indirect organizational, systems change. Actual experience with intervention models, case problems. Prerequisite: EPSY 6750 or consent of instructor. Not open to students with credit for PUAD 6764. Three hrs. seminar, 2 hrs. act. (Y)

6765 Psychological and Counseling Services in Schools and Higher Education (2)

The administration and organization of psychological and counseling services in the schools and higher education: concepts, responsibilities, and functions of the psychologist, counselor and student support services. Different sections will focus on K-12 or higher education. May be repeated for credit. Prerequisite: consent of instructor. (Y)

6770 Internship (2-6)

Individually supervised experience in a professional setting utilizing the full range of competencies in the student's concentration. Prerequisite: departmental approval. CR/NC grading only. May be repeated for two additional quarters. (A)

6781 Healthy Personality (4)

Application of the theories and research in the area of psychological health and human effectiveness to the practice of counseling. Prerequisite: PSYC 4610 or instructor's permission. (A)

6782 Counseling Women (4)

Discussion of behavior, values, attitude, bias, and beliefs in female sex roles and their impact on counseling with women. Role playing and microcounseling will be activities. Prerequisite: EPSY 6750 or instructor's permission. Three hrs. seminar, 2 hrs. act. (Y)

6783 Seminar: Contemporary Issues (2-3)

Seminar in theoretical, research, and counseling approaches concerning special issues and populations, such as delinquents, drug users, aged, the poor. May be taken up to three times for credit with different content. Prerequisites: "Classified Graduate" status in department and instructor's permission. Offered as two- or three-hour seminar. (Y)

6785 Law and Ethics in Counseling (3)

Professional ethics and statutory, regulatory and decisional laws currently applicable to the practice of counseling and psychotherapy. Confidentiality, mandated reporting laws, family and child laws as they affect clinical practice. The relationship between a counselor's personal values and his or her professional behavior and ethics. (Y)

6786 Child Abuse Assessment (1)

Legal and clinical aspects of child abuse as an issue in counseling and psychotherapy practice. Child abuse reporting laws and procedures, the psychological and family system variables important in assessment, and both individual and family treatment strategies. CR/NC grading only. (Y)

6787 Gerontology Counseling (4)

Counseling issues in treating the elderly; transitions, family processes, and significant life events; assessment of psychopathology and planning for treatment of elders, both individually and within a family structure. (Y)

6788 Domestic Abuse Counseling (1)

Detection, assessment, and diagnosis of spousal or partner abuse. Clinical issues regarding emotional abuse and violence in domestic relationships. Interventions for the treatment of couples in abusive relationships.

6800 Student Teaching (LH) (10)

Student teaching under the supervision of a master credentialed teacher and a member of the college faculty. Open only to students who have been admitted to the credential program. Concurrent enrollment in the student teaching seminar, EPSY 6810, is required. (Sp)

6801 Student Teaching (SH) (10)

Student teaching under the supervision of a master credentialed teacher and a member of the college faculty. Open only to students who have been admitted to the credential program. Concurrent enrollment in the student teaching seminar, EPSY 6810, is required. (Sp)

6810, 6820, 6830 Advanced Graduate Seminar I, II, III (2, 2, 2)

Relationship of theory and current research to professional practice; consideration of ethical and legal principles, socio-cultural issues, and research techniques in professional settings. (Y)

6860, 6861, 6862 Advanced Fieldwork I, II, III (2-4 each)

Individual supervision of assigned field work. Prerequisite: one year of approved supervised field work in the area of concentration and Department approval. CR/NC grading only. (A)

6870, 6871, 6872 Advanced Field Work Group Supervision I, II, III (3, 3, 3)

Group supervision of assigned field work. Prerequisite: one year of approved supervised field work in the area of concentration and approval of instructor. CR/NC grading only. (A)

6880 Advanced Internship (2-6)

Individually supervised experience in a professional setting utilizing the full range of competencies in the student's concentration. Prerequisite: one year of approved supervised field work or internship in the area of concentration and Department approval. May be repeated two additional quarters for a maximum of 18 units. CR/NC grading only.

6894, 6895, 6896 Supervision Fieldwork I, II, III (2, 2, 2)

Completion, under college faculty direction, of actual problems involving supervisory duties. Prerequisites: department approval, advance application, or EPSY 6670. (Y)

6897 Supervision Internship (2-6)

On-the-job completion of field duties normally carried by directors or supervisors of pupil personnel services. Prerequisites: EPSY 6670, department approval, advance application. Concurrent registration in EPSY 6894, 6895, or 6896. (A)

6898 Cooperative Education (1-4)

Supervised work experience in which students complete academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. CR/NC grading only. (A)

6899 Project (2-5)

Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be

required. Prerequisite: graduate standing. Maximum of 5 units per student.

6900 Independent Study (1-4)

6909 Departmental Thesis (2-5)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally is required. Prerequisite: graduate standing. Maximum of 5 units per student.

6910 University Thesis (1-9)

Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense is normally required. Prerequisite: graduate standing. Maximum of 9 units per student. (See also, "University Thesis Writing Guide," available in WA 859.)

6911 Developmental Assessment Practicum (4)

Clinical practice under supervision with individually administered tests. A miscellaneous course fee will be charged for materials. Please consult the quarterly *Class Schedule* for the current fee. Prerequisite: EPSY 6720. Twelve hrs. lab. (Y)

6912 Personality Assessment (4)

Study of instruments and procedures commonly employed in clinical study of emotional and social adjustments. A miscellaneous course fee will be charged for materials. Please consult the quarterly *Class Schedule* for the current fee. Prerequisite: EPSY 6720. Three hrs. seminar, 3 hrs. lab. (Y)

6955 Integrated Work for Students with Severe Disabilities (4)

Instruction in integrated community-based work training leading to integrated employment for persons with severe disabilities. Current issues related to vocational assessment, transition, and supported employment. Required of SH students receiving grant funds.

6965 Cultural Diversity in the Workplace (4)

Teaching of future counselors, teachers, managers, human relations personnel in the most effective ways to value diversity in the workplace. Managing differences, communicating across cultures, supervising differences, and developing programs and practices that top our culturally diverse workforces. Prerequisites: EPSY 6752 and graduate standing.

* Students completing a Project or a Departmental Thesis and registering for 6899 or 6909, even if combined with EPSY 6021, are limited to a total of 5 units. EPSY 6021 can be repeated for a total of 6 units; however, only five of these six units may be applied to the M.S. degree.

** Credential only

English [ENGL]

- [M.A. IN ENGLISH](#)
- [M.A. IN ENGLISH: TESOL OPTION](#)
- [GRADUATE COURSES](#)

ENGLISH

Department of English
School of Arts, Letters, and Social Sciences
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Assistant Professors:

Stephen D. Gutierrez, Keiko Tanaka

Graduate Coordinators:

Jacqueline Doyle, Jacob Fuchs

TESOL Coordinator:

Keiko Tanaka

M.A. IN ENGLISH

Program Description The university offers the Master of Arts degree in English. Although there is no separate degree offered in Creative Writing, it is possible to satisfy the thesis option for the M.A. in English by work in fiction, verse, or drama. The student seeking a degree must observe the general university requirements stated elsewhere in this catalog as well as the specific departmental requirements stated here.

Admission

To apply for admission to the Master of Arts program in English, the student must fill out the proper forms (obtained from and returned to the Admissions Office. The Admissions Office will then send the application to the English Department where it will be accepted or rejected. Also see admission requirements for the TESOL Option.

To be admitted to the M.A. program in English, the student must: (1) hold the B.A. degree from an accredited college or university, with a major in English, and (2) have an undergraduate GPA in English courses of at least 3.0. If the student cannot comply with these requirements, (s)he may petition the department by letter for special consideration. A student not admitted to the program because of deficiencies is urged to enroll in the university as an "Unclassified Post-baccalaureate" student to overcome these deficiencies.

Upon admittance to the graduate program in English, the student should immediately arrange through the English Department Office to consult a graduate advisor on selecting courses and satisfying the department's M.A. Foreign Language Requirement (see "Foreign Language Requirement" on this page).

All students except those who are "Classified Graduate" students in English must have the written permission of an English graduate advisor to enroll in a graduate course in English.

"Classified Graduate" Status and Advancement to Candidacy

The student is normally admitted to the program in English as a "Conditionally Classified Graduate" student. One condition to his or her being a "Classified Graduate" is that (s)he pass ENGL 6001 with a grade of "A" or "B". Another is that the student must satisfy the University Writing Skills requirement. There may be other conditions to his or her "Classified Graduate" status if (s)he has been admitted to the program with deficiencies; the student should consult with a graduate advisor to determine whether this is the case. After all conditions have been met, the student will be granted "Classified Graduate" status as a graduate student in English. To Advance to Candidacy for the M.A. in English, the student must satisfy the department's M.A. Foreign Language Requirement and complete 20 quarter-units of graduate coursework (including ENGL 6001) acceptable for the M.A. Also see admission requirements for the TESOL Option.

Degree Requirements

The student must complete, with a grade point average of 3.0 or above, 45 quarter-units of credit approved by a graduate advisor. At least 28 of the 45 quarter-units must be in English courses numbered 6000-6999 other than 6900 (Independent Study) and 6910 (University Thesis). ENGL 6001 is a required course. The remaining quarter-units (up to 17) may be taken in any combination of English courses numbered 4000-4999, 6900, and 6910. Also see requirements for the TESOL Option.

The thesis is optional. The student may elect to take 9 of his or her quarter-units in ENGL 6910 to write an approved thesis or equivalent work in fiction, verse, or drama. The student who elects to write a thesis must comply with the thesis instructions of the Department of English as well as those in the University Thesis Writing Guide available in WA 859. For those who elect a thesis, one exit examination in a historical period of British or American Literature is also required. For those who do not elect a thesis, two exit examinations in historical periods of British or American Literature are required.

Foreign Language Requirement

The student must demonstrate a reading knowledge of a foreign language. Consult a departmental advisor for details.

Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 grade point average, and the University Writing Skills requirements.

Applying for Graduation

A student must apply formally to graduate with a master's degree, by submitting a "Candidate for Degree" card during the Add/Drop period for the quarter before the one in which (s)he expects to graduate. Also during the quarter before the one in which the student expects to graduate, (s)he must ask the department's Graduate Coordinator to send a "Major Check" sheet to the Graduate Evaluations Office.

M.A. IN ENGLISH: TESOL OPTION

Admission

To be admitted to the M.A. in English with a Teaching English as a Second Language (TESOL) Option, students must hold a relevant baccalaureate degree (English, Linguistics, Speech Communication are obvious examples), with a 3.0 overall GPA, and have completed the following prerequisite courses (40 units) or their equivalents:

ENGL 3005 Study of Language (4)
ENGL 3010 Modern English Grammar (4)
ENGL 3015 Introduction to Phonology (4) or
SPPA 3855 Introduction to Phonetics (4)
ENGL 3020 Advanced Expository Writing (4)
ENGL 3040 History of the English Language (4)
ENGL 4040 Introduction to American Dialects (4)
SPCH 4830 Intercultural Communication (4)
ANTH 3800 Language and Culture (4) or HDEV 4520 Language Acquisition and the Symbolic Function (4)
Two courses in modern British or American literature

Required Courses (45 units)

ENGL 6501 and 6502 Theory and Practice of Teaching ESL I and II (8)
ENGL 6503 Second-Language Acquisition (4)
ENGL 6504 Morphology and Lexical Semantics (4)
ENGL 6506 Applied Linguistics (4)
ENGL 6507 Testing and Evaluation for Teaching ESL (4)
ENGL 6508 Supervised Tutoring/Teaching (8)
ENGL 6509 Computer Assisted Language Learning and Teaching (4)
ENGL 6750 Theory and Practice of Composition (4)
ENGL 6909 Departmental Thesis (5)

"Classified Graduate" Status and Advancement to Candidacy

Students are normally admitted to the master's program in English as "Conditionally Classified Graduate" students. Once the students have completed any outstanding prerequisite courses and have passed the Writing Skills Test, they may apply for "Classified Graduate" status. In order to Advance to Candidacy, students must have completed 24 units of graduate-level coursework with grades of "B" and higher.

Applying for Graduation

Students must apply formally to graduate with a master's degree by submitting a "Candidate for Degree" card during the Add/Drop period for the quarter before the one in which they expect to graduate. They must ask the English Department's Graduate Coordinator to send a "Major Check" sheet to the Graduate Evaluations Office.

GRADUATE COURSES

6001 Introduction to Graduate Studies (4)

Introduction to the major research tools for the study of English; survey and evaluation of various methods in literary criticism. Required for M.A. in English. (Y)

6070 Graduate Workshop in Fiction (4)

Writing of long and short fiction. Theory and analysis of the art of fiction. For the prospective professional writer. Prerequisite: graduate standing in English and ENGL 4070 or consent of instructor. Maximum total credit: 8 units. May be repeated once for credit with consent of instructor.

6080 Seminar in Critical Theory of Literature (4)

Study of major contemporary critics and critical approaches to literature. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: graduate standing.

6085 Seminar in Feminist Criticism (4)

Feminist criticism and its application to literary works. Literary works followed by feminist critical analyses of those works. Prerequisite: graduate standing in English.

6100 Seminar in Medieval Literature (4)

Study of major works, authors, and literary topics of the medieval period; at least one work read in the original language. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: ENGL 4151 or consent of instructor. (Y)

6215 Seminar in Renaissance Literature (4)

Study of major works, authors, and literary topics of the Tudor and Stuart periods. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: ENGL 4220 or 4251 or 4252 or 4810, or consent of instructor. (Y).

6350 Seminar in Restoration and 18th-Century British Literature (4)

Study of major works, authors, and literary topics of the Restoration and the 18th century. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: ENGL 4325 or 4813 or 4831, or consent of instructor. (Y)

6405 Seminar in 19th-Century British Literature (4)

Study of major works, authors, and literary topics of the Romantic and Victorian periods. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: ENGL 4411 or 4412 or 4832, or consent of instructor. (Y)

6501 Theory and Practice of Teaching ESL I (4)

Focuses on current research as well as practical, innovative methods for teaching ESL to adult learners. Prerequisite: graduate standing.

6502 Theory and Practice of Teaching ESL II (4)

Focuses on current research as well as practical, innovative methods for teaching ESL to adult learners. Prerequisite: ENGL 6501.

6503 Second-Language Acquisition (4)

Psycholinguistic and sociolinguistic processes as well as affective factors involved in the acquisition of a second language, with emphasis on adult learners of English. Prerequisite: graduate standing.

6504 Morphology and Lexical Semantics (4)

Investigation of the structural composition of English words, with emphasis on processes of word formation and theories of meaning and meaning change. Analysis of errors made by ESL learners. Prerequisite: graduate standing.

6506 Sociolinguistics (4)

Relationship between language and society. Language variation associated with different geographic, ethnic, and socioeconomic groups and social situations. Implications for teaching English as a Second Language. Prerequisite: graduate standing.

6507 Testing and Evaluation for Teaching ESL (4)

Methods of assessing proficiency in speaking, understanding, reading, and writing a second language. Examines adequacy of traditional evaluation methods as well as procedures in test construction and evaluation. Prerequisite:

graduate standing.

6508 Supervised Tutoring/Teaching (4)

Supervised work with students in ESL classes and tutorials. Prerequisites: ENGL 6501 and 6502.

6509 Computer Assisted Language Learning and Teaching (4)

Methods of integrating the computer into teaching ESL to adult learners. Considers theoretical and practical issues. Prerequisites: graduate standing, ENGL 6501, 6502, and 6503.

6600 Seminar in American Literature to 1900 (4)

Study of major works, authors, and literary topics before 1900. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: ENGL 4634 or 4635 or 4636 or 4860, or consent of instructor. (Y)

6650 Seminar in Women's Literature (4)

Literary works written in English by women authors throughout the ages. May be repeated once for credit with consent of instructor. Prerequisite: graduate standing in English.

6660 Seminar in 20th Century British Literature (4)

Study of major British works, authors, and literary topics of the 20th century. Prerequisite: ENGL 4816 or 4827 or 4833 or 4876 or consent of instructor. May be repeated for credit.

6665 Seminar in 20th Century American Literature (4)

Study of major American works, authors, and literary topics of the 20th century. Prerequisite: ENGL 4637 or 4827 or 4870 or 4876 or consent of instructor.

6690 Seminar in African-American Literature (4)

Major works, authors, and literary topics of the 19th and 20th centuries. May be repeated for credit with consent of instructor. Prerequisite: graduate standing in English and ENGL 4636 or 4637 or 4690 or 4860 or 4870 or consent of instructor.

6750 Theory and Practice of Composition (4)

Focus on current research in theory and methods of teaching composition. Prerequisite: consent of instructor.

6760 Theory and Practice of Writing Across the Curriculum (4)

Pedagogies incorporating writing throughout the disciplines; writing problems encountered by native and non-native English speakers; strategies for responding to student writing; technologies helpful for student writers; methods for working with students individually and in groups. Prerequisite: consent of instructor.

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the English major. CR/NC grading only. Prerequisites: at least 3.0 GPA, departmental approval of activity. (A)

6900 Independent Study (1-4)

6909 Departmental Thesis (1-5)

Development and writing of a research paper for submission to the department, which specifies its format. The written project, focusing on TESOL research, includes a survey of current literature and a bibliographical essay on an important issue in the field. Supervised by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense is normally required. Prerequisite: graduate standing. Maximum 5 units per student.

6910 University Thesis (1-9)

Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral

defense normally required. Prerequisites: Advancement to Candidacy and an approved thesis proposal. Maximum of 9 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)

Online University Catalog
California State University - Hayward
Last Update: 11/18/96

Geography [GEOG]

- [M.A. IN GEOGRAPHY](#)
- [GRADUATE COURSES](#)

GEOGRAPHY

Department of Geography and Environmental Studies
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 3021
Phone: (510) 885-3193, 885-3193, FAX: (510) 885-2353

Professor:

Herbert M. Eder (Chair)

Associate Professors:

Christina L.B. Kennedy, David J. Larson, Scott Stine

Assistant Professor:

David Woo

Graduate Coordinator:

David Woo

M.A. IN GEOGRAPHY

Program Description

Graduate study is offered leading to the degree of Master of Arts in Geography, with a choice of ten specialties: biogeography, cartography, cultural geography, economic geography, regional planning, historical geography, history and philosophy of geography, physical geography, regional geography, and urban geography. The seminars focus on intensive, directed readings interspersed with discussions of the content, principles, methods, and techniques of the selected topic or theme. The intent is to develop a subject to its research frontiers emphasizing an awareness of problems and their significance for the discipline. Seminars are accompanied or followed by directed research yielding oral and written reports. Their purpose is to expand beyond the recognition of problems to the guided investigation of a topic or theme. The seminars are supplemented by independent study and ultimately by research culminating in a University Thesis or a Departmental Thesis or a Project that allows and motivates the student to advance further in a chosen specialty. The candidate is responsible for the fulfillment of the specific requirements of the department stated below.

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on the currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

Admission

"Conditionally Classified Graduate" Status

Admission to this university in some category of post-baccalaureate status is the prerequisite for entry into the graduate program. Graduate courses in Geography are open to students who have completed the prerequisites and/or obtained the consent of the instructor. Credit may be given for equivalent courses taken at other accredited institutions; undergraduate deficiencies may be corrected while the student is in "Conditionally Classified Graduate" status.

A student must complete the following requirements to be admitted to the program with "Conditionally Classified Graduate" status:

1. File the CSU "Graduate and Post-baccalaureate Application," which is available from the Admissions Office. The student should also submit two copies each of transcripts from all universities or colleges attended and a departmental application (available from the department office) as a declaration of intent to pursue the M.A. degree program in Geography.
2. Have a 2.5 or higher GPA in all undergraduate work; and have a 3.0 or higher GPA in all upper division and graduate work in Geography prior to request for entry into the program.

Note: If a student has earned less than a 2.5 grade point average in all undergraduate work, or if (s)he has less than a 3.0 grade point average in upper division and graduate courses in Geography, (s)he must continue coursework in "Unclassified Post-baccalaureate" status until (s)he has removed the deficiencies and demonstrated his/her ability to meet the requirements of the graduate program.

3. The Graduate Record Examination (GRE) Aptitude Test is not required, but students are strongly encouraged to take this test and submit their scores to the Geography Department prior to application for admission to the M.A. degree program in Geography.

"Classified Graduate" Status

A student must complete the following requirements to be admitted to the program with "Classified Graduate" status:

1. Complete the following undergraduate courses or their equivalents, or demonstrate a competency by examination in:
 - GEOG 3100 Regional Climatology (4) or GEOL 3110 Principles of Geomorphology (4) or GEOG 3115 Physical Landscape Analysis (4)
 - GEOG 3410 Air-Photo Interpretation (4)
 - GEOG 3420 Field Instruments and Observation (4)
 - GEOG 3600 Cartographic Principles (4)
 - GEOG 4800 Growth of Geographic Thought (4)

Note: Up to 10 units of undergraduate courses may be taken as electives applicable toward the 45 units for the M.A. degree.

2. File an intended program of study with the departmental Graduate Advisor;
3. Complete the upper division course prerequisites for the seminars in the intended program of studies;
4. Complete at least 12 quarter units considered applicable by the department toward the M.A. degree requirements, including at least 3 quarter units of graduate-level (6000 series) work in residence at this university;
5. Be recommended for "Classified Graduate" status by the department; and
6. Fulfill the University Writing Skills requirement.

Maintenance of "Classified Graduate" Status

To maintain "Classified Graduate" status a student must maintain a 3.0 or higher GPA must be attained on all work taken in the approved program of study, whether at Cal State Hayward or at any other college or university. Only courses with grades of "C" and higher are acceptable for courses applicable to degree requirements in Geography.

If a candidate's GPA drops below 3.0, the department will notify the Graduate Dean to place the student in "Conditionally Classified Graduate" status and the university will place the student on Academic Probation until (s)he has remedied his or her deficiencies and has been recommended by the department for return to "Classified Graduate" status. Failure by a student to return to "Classified Graduate" status in two additional quarters of study (or following completion of 15 additional quarter units) shall result in his or her being academically disqualified from the departmental program.

Advancement to Candidacy

Admission to "Classified Graduate" status does not imply that a student will be Advanced to Candidacy for the M.A. degree. A student with "Classified Graduate" status will be Advanced to Candidacy for the M.A. degree when (s)he has satisfied the following requirements:

1. Demonstrated proficiency in either a modern foreign language, or in statistical methods as they apply to geography, or in mathematics.
 - a. Languages which are acceptable without special arrangements are Chinese, French, German, Japanese, Russian, Spanish, and Swedish. Any other modern foreign language may be substituted, provided the thesis advisor, the student, and the graduate advisor agree that the language is an integral part of the projected program of study for the M.A. degree.

"Proficiency" in a foreign language means the completion (with a grade point average of 2.5 or better) of two years of college-level instruction in the language or demonstrating, by written examination, a reading competency at this level.

- b. Statistical methods may be used to satisfy this requirement provided the thesis advisor, the student, and the graduate advisor agree that such methods form an integral part of the projected program of study for the M.A. degree.

"Proficiency" in statistical methods is defined as satisfactory completion of the equivalent of:

STAT 1000 Elements of Probability and Statistics and STAT 3010 Statistical Methods in the Social Sciences, plus one 4000-level statistics course (STAT 4601 recommended). The student will also be required to demonstrate by examination the ability to solve a geographic problem using the computer.

- c. Mathematics may be used to satisfy this requirement provided the thesis advisor, the student, and the graduate advisor agree.

"Proficiency" in mathematics is defined as satisfactory completion of the equivalent of Trigonometry and Analytic Geometry (MATH 1300); Calculus I, II, III (MATH 1304, 1305, 2304); and either Linear Algebra (MATH 2101) or one other upper division mathematics course, except MATH 4021, 4022, 4023.

2. Declared an intention to complete either a thesis or a project
3. Been recommended for Advancement to Candidacy by the department.

Degree Requirements

To be eligible for the M.A. degree in Geography a student must:

1. have been Advanced to Candidacy;
2. have completed 45 quarter units of graduate work of which:
 - a. all must have been earned within the five years just preceding the completion of the requirements for the degree;
 - b. not fewer than 32 units must have been completed in residence;
 - c. not fewer than 23 units must have been in geography courses in the 6000 series, including the thesis or project;
 - d. not more than 6 units may have been for a University Thesis (GEOG 6910) nor more than 4 for a project (GEOG 6899); and
 - e. not more than 13 units may have been for extension and/or transfer course credit, as approved by the department;
3. have completed a satisfactory program of study as approved by the department, to include:
 - a. GEOG 6010 Seminar on Research Theory and Philosophy of Geography (4)
 - b. four graduate seminars in geography (12)
 - c. elective courses (graduate or upper division) in geography taken as a graduate student (12-15)
 - d. elective courses (graduate or upper division) outside of geography in one or more closely related fields (8-13)
(*Note: A student with a baccalaureate degree in a closely related field may take these elective courses in geography.*)
 - e. a University Thesis or Departmental Thesis or Project (4-6)
4. have obtained a grade point average of 3.0 or higher in
 - a. all post-baccalaureate units undertaken;
 - b. all 45 units offered as satisfying the requirements of the M.A. degree program;
5. have been recommended for the M.A. degree in Geography by the department.
6. have satisfied the University Writing Skills requirement.

Upper Division Courses Acceptable for the Master's Degree

All upper division Geography courses are acceptable for the M.A. degree program.

GRADUATE COURSES

6010 Seminar on Research Theory and Philosophy of Geography (4)

A search for common theory and philosophy in modern geography. Focus on proposal development with the intent of giving graduate students a framework for their thesis or project research development. Prerequisite: GEOG 4800. (F)

6100 Seminar in Physical Geography (3)

Selected topics and directed research in physical geography based upon intensive readings, group discussion, and oral and written reports. Prerequisite: two upper division courses in physical geography (3100-4100 series), or equivalent, or consent of instructor.

6300 Seminar in Cultural Geography (3)

Selected topics and directed research in cultural geography based upon intensive readings, group discussion, and oral and written reports. Prerequisite: two upper-division courses in cultural geography, or equivalent, or consent of instructor. (Y)

6400 Seminar in Historical Geography (3)

Selected topics and directed research in historical geography based upon intensive readings, group discussion, and oral and written reports. Prerequisite: GEOG 3300 or GEOG 3360 or two upper division courses in history or consent of instructor.

6500 Seminar in Regional Geography (3)

Selected regions of the world based upon directed research, group discussion, and oral and written reports. Prerequisites: two regional courses in geography or consent of instructor.

6700 Seminar in Man's Role in Changing the Face of the Earth (3)

Study of selected topics in Human/Environmental relationships and their effects upon landscape change and environmental problems. Prerequisites: one of ENVT 3460, GEOG 3000, 3300, 4320, 4350, or consent of instructor. (Sp)

6750 Seminar in Environmental Planning (3)

Selected topics and processes used in environmental planning based upon application of environmental knowledge and skills in problem solving. Prerequisite: ENVT 3460 or consent of instructor.

6800 Seminar in Urban and Regional Planning and Development (3)

Selected topics and directed research in urban and regional planning and development based upon intensive readings, group discussion, and oral and written reports. Prerequisites: GEOG 3350, or equivalent, or consent of instructor. (Y)

6850 Geographic Internship (4-6)

Individual students are assigned to public, private, or volunteer agencies and are supervised jointly by agency personnel and the course instructor. Students exchange experiences in group session and are subject to review by instructor. Prerequisite: "Classified Graduate" status. (F, W, Sp)

6899 Project (2)

Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate status. Maximum of 4 units per student. (A)

6900 Independent Study (1-4)

6909 Departmental Thesis (1-5)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate status. Maximum of 5 units per student. (A)

6910 University Thesis (1-6)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate status. Maximum of 6 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)

Geology [GEOL]

- [M.S. IN GEOLOGY](#)
- [GRADUATE COURSES](#)

GEOLOGY

Department of Geological Sciences
School of Science
Office: North Science 329
Phone: (510) 885-3486

Professors:

Elwood R. Brooks, Sue E. Hirschfeld, Leigh W. Mintz, Alexis N. Moiseyev, Detlef A. Warnke (Chair)

Associate Professor:

Anna V. Buising

Assistant Professor:

Nancy E. Fegan

Graduate Coordinator:

Alexis N. Moiseyev

M.S. IN GEOLOGY

Faculty: Research Interests

Elwood R. Brooks, Ph.D., 1964, University of Wisconsin; petrology field geology, volcanology, optical mineralogy.

Anna V. Buising, Ph.D., 1988, University of California at Santa Barbara; sedimentology (tectonics and sedimentation regional studies, sedimentary petrology, and facies models).

Nancy E. Fegan, Ph.D., 1993, Michigan State University; groundwater and surface water chemistry, watershed hydrology, water-rock interaction.

Sue E. Hirschfeld, Ph.D., 1971, University of California, Berkeley; paleontology, stratigraphy, earthquake hazards.

Leigh W. Mintz, Ph.D., 1966, University of California, Berkeley; invertebrate paleontology, historical geology (on administrative assignment).

Alexis N. Moiseyev, Ph.D., 1966, Stanford University; geochemistry, geophysics, ore deposits.

Detlef A. Warnke, Ph.D., 1965, University of Southern California; oceanography, marine geology,

geomorphology.

Program Description

The Department of Geological Sciences offers graduate study leading to the Master of Science degree in Geology. This program is designed to prepare students for: (1) employment as geologists in government (city, county, regional, state, and federal) and private enterprise (engineering and geotechnical firms, mining and oil companies, etc.); (2) research at the doctoral level in various aspects of geology, geochemistry, geophysics, and oceanography, depending on their undergraduate background; and (3) the Community College Instructor Credential (the master's degree requirement). We also provide continuing education for professional geologists, engineers, planners, etc.

To serve graduate students who are employed during the day, all graduate courses in the Department of Geological Sciences are offered in the evenings and on weekends. In addition to regular catalog courses, recent graduate seminars and advanced topics courses have dealt with such subjects as computer applications in geology, rock mechanics, geothermal exploration, mineral resource evaluation, isotope geochemistry, sedimentary models, and tectonics and sedimentation. Students registered at Cal State Hayward may enrich their graduate programs by enrolling in courses, through cross-registration at the University of California, Berkeley. Additional facilities and part-time employment may be secured through Co-op programs, the Lawrence Berkeley and Livermore National Laboratories, and the U.S. Geological Survey in Menlo Park.

Candidates for this degree must be prepared to engage in significant individual research. Lately, student research in this department has included such topics as contaminant hydrogeology, areal geology and slope stability, engineering geology, glacial geology, marine and geothermal geochemistry, mineral deposits, volcanic petrology, neotectonics, and fluvial and marine sedimentology. It is very important that prospective candidates determine whether their research interests coincide with those of the faculty members before applying. Interested persons are invited to contact the department directly for more details on the program and the availability of financial assistance. Qualifications and advancement in the graduate program are decided by the department Graduate Coordinator with the concurrence of the department faculty.

Environmental Geology Option

Students who complete a combination of appropriate courses in the Department of Geological Sciences and other departments and who complete an environmentally related thesis, will be allowed to receive the M.S. degree with the Environmental Geology Option. A list of appropriate courses may be obtained from the department office.

Admission

With the qualifications listed under "Conditionally Classified Graduate" status below, the M.S. degree program is open to any student in possession of a baccalaureate degree in Geology with course work equivalent at least to the core requirements for the B.S. degree in Geology at Cal State Hayward (including a 5 week or 8 quarter unit, summer field geology course and coursework in mathematics, physics, and chemistry).

Applicants must have a GPA of at least 2.5 in all undergraduate work and at least 2.75 in all geology courses. Any undergraduate geology course with a "D" grade will have to be repeated. Students transferring from another graduate program must have a GPA of at least 3.0 in all graduate geology courses. (No more than 13 units may be transferred.)

Applications must be accompanied by two letters of recommendation from faculty members or work supervisors.

Conditionally Classified Graduate Status

Students who are otherwise qualified but have course deficiencies and/or have not satisfied the University

Writing Skills requirement, will be accepted as "Conditionally Classified Graduate" students. Course deficiencies may be removed by enrolling on a "CR/NC" basis. (Students who wish to develop their writing skills should enroll in English 3000 or 3001.)

Classified Graduate Status

Students who fulfill all the requirements for admission to the program will be accorded "Classified Graduate" status once they have satisfied the University Writing Skills requirement. All deficiencies have to be removed, and the University Writing Skills requirement satisfied no later than the completion of 20 units of coursework applicable to the degree or the student will be disqualified.

Selection of Thesis or Academic Advisor

Once "Classified Graduate" status has been attained, each student will be assigned a thesis advisor by the department chair after consultation with the student and the graduate coordinator. The faculty member chosen also will act as academic advisor.

Advancement to Candidacy

In order to be Advanced to Candidacy, the student must have:

1. been accorded "Classified Graduate" status
2. been assigned a thesis advisor; and
3. submitted to the department an acceptable Thesis Prospectus describing the research to be attempted (guidelines for preparation of the Prospectus may be obtained from the department office). The research topic must be approved in advance by the thesis advisor.

Degree Requirements

1. Advancement to Candidacy
2. Satisfaction of university requirements described in the Graduate and Post-Baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement
3. Completion of the study plan outlined below:
Two Graduate Seminars (GEOL 6811) (2,2)
University Thesis (GEOL 6910) (9)
Geology Graduate Courses (20)
Upper division/graduate electives in Geology and related fields (12)
4. Completion and defense of the University Thesis.

Curricular Requirements

A. Graduate Geology Course Requirements

All students are required to take two graduate seminars (GEOL 6811), each 2 units. In addition, any combination of graduate geology courses and additional seminars except GEOL 6420 (Internship), GEOL 6900 (Independent Study), and GEOL 6910 (University Thesis) must be taken for a total of 20 units.

B. Elective Course Requirement

Twelve units must be completed in courses selected from a list of approved upper division and graduate courses in Geology and related disciplines which is available from the department office; at least 4 units

must be in Geology courses.

C. Basic University Requirements

These include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

Students cannot receive credit toward the master's degree for:

- Courses taken to remove deficiencies
- Independent Study, GEOL 6900, in excess of 4 units
- Internship, GEOL 6420, in excess of 4 units
- University Thesis, GEOL 6910, in excess of 9 units
- Cooperative Education (GEOL 3898)

University Thesis

Requirements: Students must submit to the Thesis Committee, and defend orally, an acceptable University Thesis. The University Thesis is a formal paper reporting the results of original research. This research normally involves field and/or laboratory investigation. The thesis is submitted to the university in the bound format specified in the "University Thesis Writing Guide." A minimum of two copies of the thesis must be submitted to the Thesis Office (WA 859); one copy will be filed in the Department Office. The Thesis Committee comprises the faculty thesis advisor plus either (1) two other faculty members from the Department of Geological Sciences or other appropriate Cal State Hayward faculty, or (2) one other faculty member from the department and one or more qualified individuals from outside the university.

Units Required: GEOL 6910, University Thesis, for a total of 9 units; students may not register for more than 50% of the total units prior to starting the writing of their thesis.

Other Requirements

Students filing for graduation are expected to know the procedures described in this catalog. (See "[How to Apply for Graduation](#)" in the Baccalaureate Degree Requirements chapter.)

GRADUATE COURSES

Marine Science Courses

See the graduate [Marine Science chapter](#) for course descriptions.

- 6202** Marine Instrumental Analysis (6)
- 6204** Sampling and Experimental Design (6)
- 6242** Plate Tectonics (4.5)
- 6244** Paleoceanography (6)
- 6245** Deep Sea Sedimentation (6)
- 6251** Marine Geochemistry (6)
- 6261** Ocean Circulation and Mixing (6)
- 6262** Satellite Oceanography (6)
- 6263** Application of Computers to Oceanography (6)
- 6274** Advanced Topics in Oceanography (1.5-6)
- 6286** Graduate Seminar in Marine Geology (3)

Geology Courses

6320 Groundwater (4)

Groundwater resource evaluation methods. Mathematical development of multi-dimensional flow equations. Introduction to computer models and numerical simulation to predict aquifer yields. Inorganic and organic groundwater contamination. Contamination transport processes. Three hrs. lect., 3 hrs. lab. and/or field trips. (Sp)

6321 Aqueous Geochemistry (4)

Chemistry of surface and ground water. Carbonate system and pH, ion exchange, mineral equilibria, salinity, redox reactions, trace elements, isotopes. Thermodynamics and equilibrium in natural waters. Hydrochemical cycling of elements. Cross-listed with [CHEM 6321](#). Prerequisite: GEOL 4110 or upper division Chemistry, or permission of instructor. Three hrs. lect., 3 hrs. lab. (Alt. F)

6322 Water/Rock Interactions (4)

Near-surface interactions between rocks, water, and soils. Clay mineralogy, x-ray diffraction and SEM analysis. Weathering rates, development of soil profiles, kinetic constraints and chemical equilibrium in low temperature water/rock systems. Prerequisite: GEOL 4110 or permission of instructor. Three hrs. lect., 3 hrs. lab., field trip(s). (Alt. F)

6400 Plate Tectonics (4)

Geologic, geophysical, and geochemical evidence for plate tectonics. Mechanisms and implications of plate tectonics with regard to igneous, sedimentary and metamorphic processes and evolution of the crust. Background in geophysics and geochemistry recommended. Four hrs. lect.; one field trip required. (Alt. Y)

6405 Geotectonic Development of California (4)

Advanced treatment of petrology, stratigraphy, and structure of California; interpretation of the state's geologic history in terms of plate and accretion tectonics. Prerequisites: GEOL 3701, -2; 3730; and 3810, or permission of instructor. Two hrs. lect., 6 hrs. lab/field; several weekend (overnight) and Saturday field trips required. (Alt. Sp)

6410 Geologic Hazards (4)

Hazards to welfare and works of people due to faulting, earthquakes, volcanism, landslides, subsidence, expansive soils, and hydrologic processes. Prerequisites: structural geology, petrology, and geomorphology, or consent of instructor. Three hrs. lect., 3 hrs. lab. and/or field trips. (Y)

6411 Engineering Geology (4)

Application of geology in location and planning of engineering works. Study of case histories. Use of geophysical techniques to solve engineering geologic problems. Prerequisite: Graduate standing or consent of instructor. Three hrs. lect., 3 hrs. lab. and/or field trips. (Y)

6412 Advanced Igneous and Metamorphic Petrology (4)

Chemical characteristics of igneous rocks and magmatic evolution. Petrography of igneous and metamorphic rock suites using the polarizing microscope, emphasizing thorough description of mineralogy and textures. Prerequisite: GEOL 3611 or equivalent. Two hrs. lect., 6 hrs. lab. (Alt. Y)

6415 Advanced Sedimentary Petrology (4)

Advanced study of terrigenous-clastic and chemical sedimentary rock petrogenesis, including depositional environments and facies models, diagenesis, and basic analysis techniques. Prerequisites: GEOL 3611 and 3702 or equivalent courses. Three hrs. lect., 3 hrs. lab. Field trip(s). (Alt. Sp)

6420 Internship (1-4)

Professional experience for at least one quarter with a public or private organization involved in geologic studies, summarized in a written report. Credit/No Credit grading only. Prerequisites: "Classified Graduate" status and advisor's approval. No more than 4 units can be applied toward the master's degree. (A)

6510 Mineral Resource Evaluation (4)

The geologist's role in organizing exploration, in supervising mining production and ore processing, appraising mineral deposits, and estimating reserves. Principles of mining economics. Prerequisite: graduate standing in geology or instructor's approval. Three hrs. lect., 3 hrs. lab. (Alt. W)

6620 Advanced Topics in Geology (4)

Selected advanced topics in geology. May be repeated with consent of instructor. Prerequisite: graduate standing or consent of instructor. Four hrs. lect. (Y)

6621 Advanced Topics in Geology with Laboratory (4)

Selected advanced topics in geology. May be repeated with consent of instructor. Prerequisite: graduate standing or consent of instructor. Three hrs. lect., 3 hrs. lab. (Y)

6811 Graduate Seminar (2)

Investigation of a selected geologic topic. May be repeated for credit with consent of instructor. Prerequisite: graduate standing or consent of instructor. Two hrs. seminar. (Y)

6900 Independent Study (1-4)

CR/NC grading only. No more than 4 units may be applied toward the master's degree. (A)

6910 University Thesis (1-9)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least two of whom must be Cal State Hayward faculty members. Oral defense required. CR/NC grading only. Prerequisites: "Classified Graduate" status and advisor's approval. Maximum of 9 units per student. (See also "University Thesis Writing Guide," available in WA 859.) (A)

History [HIST]

- [M.A. IN HISTORY](#)
- [GRADUATE COURSES](#)

HISTORY

Department of History
School of Arts, Letters, and Social Sciences
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Phone: (510) 885-3207

Professors:

Jose A. Fernandez, Frank D. Gilliard, Bruce A. Glasrud, Tom G. Hall, Gerald S. Henig, John E. Morby, Richard J. Orsi, Theodore Roszak, Judith M. Stanley

Associate Professors:

Dee E. Andrews, Henry F. Reichman (Chair)

Assistant Professors:

Lois L. Huneycutt, Sophia Lee

Graduate Coordinator:

Dee E. Andrews

M.A. IN HISTORY

Program Description

The Master of Arts degree in History is designed to meet the varied needs and interests of students seeking an advanced degree in history. The program trains students in advanced skills in historical research, writing, and teaching. Four options permit students to plan their coursework to best suit their goals within the overall program requirements and the range of courses offered.

The program includes graduate course offerings in historical research and historiography, conference (seminar) courses, undergraduate or graduate elective units, and a culminating master's project. Elective units may be taken in other fields with the approval of the graduate coordinator. The master's project may be a university thesis, departmental thesis, examinations in major and minor fields, or a graduate project, depending on the option chosen.

Because the majority of students in the master's program are employed full-time during the day, graduate courses are offered in the evening, usually on a one-night-a-week basis, in Fall, Winter, and Spring quarters. This schedule allows students time to complete regular assignments, carry on research, and make regular progress toward the M.A. degree.

Career Opportunities

The master's program is especially suited to individuals interested in enhancing their careers as secondary school

teachers, in qualifying as community college faculty, or training as historical editors, archivists and Bay Area or California historians. It is also useful for individuals interested in retraining for careers in history or in preparing for doctoral programs in history.

Faculty

Although most graduate students find it convenient to specialize in American and California history, the History Department faculty also includes specialists in European, Asian, and Latin American history. Qualified graduate students may usually carry out research and specialize in these areas as well. The full-time faculty are professional scholars, widely published in their respective fields and active in regional and national historical associations. The department has many years' experience in advising and training master's students in history.

Option Areas

The master's program offers four options: Thesis, Examination, Teaching, and Public History. The Thesis, Examination, and Teaching options differ chiefly in their required M.A. projects. The Public History Option has a distinct set of course requirements designed for training in that specialty.

Students who intend to pursue further graduate work in History should select the Thesis option. Both the Thesis and Examination options are appropriate for those who do not plan to continue beyond the master's degree. The Teaching option is especially useful for individuals who currently teach or plan careers in teaching. The Public History option prepares students for non-academic work in history, such as Bay Area or California projects in the private or public sector or museum and archival work. It is generally expected that students in the Thesis and Public History options will pursue research at libraries and historical collections outside the university in completing their master's projects. Students in the Examination and Teaching options are more likely to complete their projects on campus.

Special Features

Internships (non-remunerative) in research and editing are available in the department with the journal *California History*, with preference given to Public History students. Graduate students are also eligible for funding for travel and research through the Evelyn Whitman Rice Memorial Fund. Research opportunities in Bay Area and California history abound at the University of California, Berkeley; the Bancroft Library; the National Archives at San Bruno; and numerous private collections in the region. The university library provides excellent reference, microfilm and interlibrary loan services.

Scholarships

Qualified history graduate students are eligible for graduate financial aid through the loan and fellowship programs administered by the Financial Aid Office. Small scholarships of \$100 to \$500, pending available funds, are awarded annually through the Evelyn Whitman Rice Memorial Fund to assist graduate students in completing their master's projects.

Admission

Admission to the master's program generally requires a B.A. degree major in History, or the equivalent, and a minimum GPA of 3.0 ("B") in the last two years of undergraduate work and 3.25 ("B+") in history. A one-page statement of purpose and two letters of recommendation must accompany applications. Interested students with degrees in related disciplines, such as American Studies, Ethnic Studies, Political Science, Art or Theater History, and Literature, and suitable academic backgrounds in history are encouraged to apply.

In some cases, applicants may be advised to enroll in the university as an "Unclassified Postbaccalaureate" student to remedy any deficiencies or complete further coursework in history. Students without necessary background in research

or writing may also be admitted to the program with a "Conditionally Classified Graduate" status with the requirement that they complete HIST 4030 and/or 4031 at a specified grade level before being admitted to "Classified Graduate" status. Students meeting all admissions requirements, and who have satisfied the University Writing Skills requirement, are eligible to be admitted with "Classified Graduate" status.

Degree Requirements

The Master of Arts degree in History consists of 45 units. Each of the four options in the master's program requires a prescribed program of 45 units listed below. Reading proficiency in a foreign language is strongly encouraged, especially for those planning to pursue doctoral degrees or research careers.

I. Thesis Option (45 units)

A. Required Courses (17 units)

- HIST 6010 Seminar in History (5)
- HIST 6030 Graduate Historiography (4)
- HIST 6910 University Thesis (8)

B. Conference Course (16 units)

Four courses, including repeats, from the following in at least two areas. One Conference Course must be in the general area of the thesis topic.

- HIST 6100 Conference Course in Ancient and Medieval History (4)
- HIST 6200 Conference Course in European History (4)
- HIST 6300 Conference Course in Asian History (4)
- HIST 6400 Conference Course in United States History (4)
- HIST 6500 Conference Course in Latin American History (4)

C. Electives (12 units)

Twelve (12) units of upper division or graduate courses in History.

D. Complete an approved University Thesis (See HIST 6910 above.)

II. Examination Option (45 units)

A. Required Courses (13 units)

- HIST 6010 Seminar in History (5)
- HIST 6030 Graduate Historiography (4)
- Four units of HIST 6909 Departmental Thesis (1-4)

B. Conference Courses (20 units)

Five courses, including repeats, from the following in at least two areas:

- HIST 6100 Conference Course in Ancient and Medieval History (4)
- HIST 6200 Conference Course in European History (4)
- HIST 6300 Conference Course in Asian History (4)
- HIST 6400 Conference Course in United States History (4)
- HIST 6500 Conference Course in Latin American History (4)

C. Electives (12 units)

Twelve (12) units of upper division or graduate courses in History.

D. Comprehensive Examination

Pass comprehensive written examinations in major and minor fields as prescribed by the department.

III. Teaching Option (45 units)

A. Required Courses (17 units)

- HIST 6010 Seminar in History (5)

HIST 6030 Graduate Historiography (4)
HIST 6899 Project or HIST 6909 Departmental Thesis (4)
HIST 6900 Independent Study (4)

B. *Conference Courses (16 units)*

Four courses, including repeats, from the following in at least two areas:

HIST 6100 Conference Course in Ancient and Medieval History (4)
HIST 6200 Conference Course in European History (4)
HIST 6300 Conference Course in Asian History (4)
HIST 6400 Conference Course in United States History (4)
HIST 6500 Conference Course in Latin American History (4)

C. *Electives (12 units)*

Twelve (12) units of upper division or graduate courses in History.

D. *Curriculum Project*

Complete an approved curriculum Project. See HIST 6899, 6909 above.)

IV. Public History Option (45 units)

A. *Required Courses (25 units)*

HIST 4032 Introduction to Public History (4)
HIST 6010 Seminar in History (5)
HIST 6030 Graduate Historiography (4)
HIST 6400 Conference Course in United States History (4)
HIST 6899 Project or HIST 6909 Departmental Thesis (3)
HIST 6901 Internship in Public History (5)

B. *Conference Courses (12 units)*

Three courses, including repeats, from the following in at least two areas:

HIST 6100 Conference Course in Ancient and Medieval History (4)
HIST 6200 Conference Course in European History (4)
HIST 6300 Conference Course in Asian History (4)
HIST 6400 Conference Course in United States History (4)
HIST 6500 Conference Course in Latin American History (4)

C. *Electives (8 units)*

Eight units of upper division or graduate courses in History.

Recommended Skills Courses: The department recommends that students select two or three courses from the following list, or others approved by their advisor, appropriate to their specific professional goals:

ANTH 3240 Archeology of North America, 3710 Museum Curating, 4240 Data Analysis in Archeology; ART 3701 Gallery and Museum Exhibition and Design, 3702 Theories and Practices of Galleries and Museums; ART/MCOM 4620 History of Photography; PUAD 4800 The Study of Public Administration, 6828 Quantitative Analysis in the Public Sector

D. *Internship and Project*

Complete an approved Internship and Public History Project. (See HIST 6899, 6901, 6909 under required courses.)

Upper Division Courses Acceptable for the Master's Degree

All History courses in the 3000-4000 series except 3400, 4030, and 4031 are acceptable courses in a master's program.

Advancement to Candidacy

In addition students, must meet the requirements of Advancement to Candidacy confirming that a student is prepared to finish the degree and is recommended as a degree candidate. A Classified Graduate student in good standing is eligible to be advanced to candidacy for the master's degree after:

1. completing 12 quarter units applicable to the degree program
2. completing Hist 6010 and 6030
3. submitting a proposal for the Master's thesis, project, or two fields of examination to the Graduate Committee
4. obtaining the Graduate Coordinator's approval of the student's committee, comprised of at least two faculty members.

GRADUATE COURSES

6010 Seminar in History (5)

Historical methodology including critical analysis and use of source materials, research and writing. Investigation of selected topics in political, economic, diplomatic, intellectual, and social history. Reports and discussion. Prerequisite: consent of instructor. (F)

6030 Graduate Historiography (4)

Intensive readings in the classics of historical writing and the philosophy of history. Written critical analyses, both in- and out-of-class, are required. Open only to postbaccalaureate students. Prerequisite: consent of instructor. (Y)

6100 Conference Course in Ancient and Medieval History (4)

Readings and discussion in the significant historical literature of ancient and medieval Europe emphasizing the chief areas of historical controversy and interpretation. Study of the major historians. May be repeated for additional credit with other professors. Prerequisite: consent of instructor.

6200 Conference Course in European History (4)

Readings and discussion in the significant historical literature of modern Europe emphasizing the chief areas of historical controversy and interpretation. Study of the major historians. May be repeated for additional credit with other professors. Prerequisite: consent of instructor.

6300 Conference Course in Asian History (4)

Readings and discussion in the significant historical literature of Asia emphasizing the chief areas of historical controversy and interpretation. Study of the major historians. May be repeated for additional credit with other professors. Prerequisite: consent of instructor.

6400 Conference Course in United States History (4)

Readings and discussion in the significant historical literature of the United States emphasizing the chief areas of historical controversy and interpretation. Study of the major historians. May be repeated for additional credit with other professors. Prerequisite: consent of instructor.

6500 Conference Course in Latin American History (4)

Readings and discussion in the significant historical literature of Latin America emphasizing the chief areas of historical controversy and interpretation. Study of the major historians. May be repeated for additional credit with other professors. Prerequisite: consent of instructor.

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 5 units. A maximum of 5 units will be accepted toward the History major. Prerequisites: at least a 3.0 GPA; departmental approval of activity. (A)

6899 Project (1-4)

Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate standing.

6900 Independent Study (1-4)**6901 Internship in Public History (1-5)**

Supervised field work in non-academic settings, such as museums, libraries, archives, private business and government agencies, or historical preservation programs. Prerequisite: consent of instructor. May be repeated, but maximum allowable credit is five units.

6902 Historical Editing (1-4)

Theory and method of editing scholarly historical journals. Experience editing a State Historical Society quarterly under the supervision of its editor. May be repeated for credit. Prerequisite: consent of instructor.

6909 Departmental Thesis (1-4)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing.

6910 University Thesis (1-4)

Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. (The University Thesis Writing Guide is available in Warren Hall, room 859.)

Mathematics [MATH]

- [PROGRAM DESCRIPTION](#)
- [OPTIONS](#)
- [GRADUATE COURSES](#)

MATHEMATICS



Department of Mathematics and Computer Science

School of Science

Office: North Science 335

Phone: (510) 885-3414

Student Service Center: North Science 337

Phone: (510) 885-4011

Professor Emeritus:

John W. Summers

Professors:

James S. Daley, Peter A. Fowler, Edward L. Keller (Chair), Gary E. Lippman, Massoud Malek, Charles M. Marut, Russell L. Merris, Christopher L. Morgan, William R. Nico (Computer Science Coordinator), Edna E. Reiter (Associate Chair), Istvan Simon, Bruce E. Trumbo, Marvin R. Winzenread, Donald L. Wolitzer, Ytha Y. Yu

Associate Professors:

Chi Fai Ho, Dan Jurca, Farzan Roohparvar, Stuart Smith, Hwa Tang, William Thibault

Assistant Professors:

Kevin E. Callahan, Julie S. Glass, Kathleen Hann, Chung-Hsing OuYang

Lecturers:

Paula Albert, Jack A. Carter, Michael A. Contino, Dorothy E. Fujimura, Phil Gonsalves, Jean Simutis

Graduate Coordinator:

Donald L. Wolitzer

PROGRAM DESCRIPTION

The Mathematics and Computer Science Department offers graduate study leading to the degree of Master of Science in Mathematics. The goal of the faculty is to provide excellent instruction in advanced mathematics and to maintain a supportive environment for graduate students. Students who complete the program should be equipped for careers in community college teaching or positions in industry that require knowledge of mathematics beyond the undergraduate level. The M.S. degree in Mathematics can also serve as preparation for advanced study toward a Ph.D. degree in mathematics or a related field.

Our program features small classes that allow for close contact between students and faculty. Most graduate classes are offered in the late afternoon or early evening, making it possible for working students to attend. Courses toward the M.S. degree may also be taken during the summer quarter. Students may begin their studies in any one of the four

quarters.

Students interested in the M.S. degree program in Mathematics should speak with the Mathematics Graduate Coordinator.

Career Opportunities

A number of former Cal State Hayward students currently hold positions as community college mathematics teachers. Others have found the M.S. degree in mathematics to be an ideal preparation for further studies at doctorate-granting institutions and have continued by working towards a Ph.D. degree in mathematics or a related field such as operations research, physics, or economics. A number of these alumni are now professors at four-year institutions. Still others are in mathematics-related careers in industry.

Faculty

The faculty of the Mathematics and Computer Science Department hold doctorates in a wide variety of areas of specialization and offer courses encompassing a broad range of pure and applied mathematics, including standard graduate mathematics courses as well as courses in new areas. Areas of emphasis include numerical analysis, pure and applied algebra, differential equations, real and complex analysis, topology, geometry, mathematical optimization, computer simulation, probability, statistics, and selected topics in applied mathematics.

Special Features

Each quarter, a limited number of teaching positions is available to qualified graduate students. These positions, which generally involve teaching one lower division mathematics course per quarter, provide valuable experience, especially for those who intend to become community college teachers. The department also employs qualified students as paper graders.

Mathematics students at Cal State Hayward have access to modern computer equipment, including various mathematical software packages.

The Cal State Hayward Mathematics Club is open to all interested students. This club features lectures by students and faculty and offers a variety of social activities.

Scholarships

Each year the department awards a number of scholarships covering a large portion of the fees for the subsequent year. Scholarship applications may be obtained from the department office during the Winter quarter.

OPTIONS

There are three options available. Option I emphasizes coursework drawn from fundamental branches of mathematics: algebra, topology, and real and complex analysis. Option II, Mathematics Teaching, is intended for those who hold secondary teaching credentials and who intend to pursue a career in secondary education. Option III, Applied Mathematics, is designed to expose students to various aspects of applied mathematics, while allowing some coursework in "pure" mathematics as well. Students who intend to become community college teachers or go on to further graduate study should select Option I or Option III.

Option I

Admission

To enter the program with "Classified Graduate" status, a student must have completed at least 36 quarter units of acceptable upper division mathematics with a grade point average of "B" or higher. Included among these units must be courses in:

- Analysis
- Abstract algebra
- Linear algebra
- Differential equations

A student may be admitted to the program with "Conditionally Classified Graduate" status while making up course or grade point deficiencies. Units taken to meet any course deficiencies may not be applied toward the master's degree, and no more than 20 quarter units taken while in "Conditionally Classified Graduate" status may be applied to the degree. A "Conditionally Classified Graduate" student who has no course deficiencies, a "B" or higher average in at least 12 quarter units of postbaccalaureate study, and has satisfied the University Writing Skills requirement, should petition the graduate coordinator for admission to the master's degree program with "Classified Graduate" status.

Advancement to Candidacy

A student with "Classified Graduate" status may apply for Advancement to Candidacy after completing at least 16 quarter units toward the master's degree with a "B" or higher average, including at least two 6000-level mathematics courses with a "B" or higher average. Before being Advanced to Candidacy, a student's complete course of graduate study must be approved by the Mathematics Graduate Studies Committee.

Degree Requirements

The following departmental requirements must be satisfied:

- A. The following four courses (or their equivalents) must be completed, either as an undergraduate or as a graduate student:
 - MATH 4121 Advanced Algebra (4)
 - MATH 4340 Introduction to Complex Variables (4)
 - MATH 4350 Theory of Functions of a Real Variable (4)
 - MATH 4360 Introduction to Topology (4)
- B. The 45 quarter units applied to the degree must include:
 1. At least 24 quarter units of 6000-level courses, of which at least 20 quarter units are mathematics courses.
 2. At least two of the following four courses:
 - MATH 6121 Topics in Advanced Algebra I (4)
 - MATH 6201 Topology (4)
 - MATH 6340 Complex Analysis (4)
 - MATH 6350 Real Analysis (4)
- C. A comprehensive examination must be passed. Details are available in the department office.

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

Option II (Mathematics Teaching)

Admission

This option is available only to holders of teaching credentials, unless special permission is obtained. In order to be admitted to the master's degree program with "Classified Graduate" status, a student must have completed 30 or more

quarter units of acceptable upper division mathematics with an average of "B" or higher. A student may be admitted to the program with "Conditionally Classified Graduate" status while making up course or grade point deficiencies. Units taken to meet any course deficiencies may not be applied toward the master's degree, and no more than 20 quarter units taken while in "Conditionally Classified Graduate" status may be applied to the degree. A "Conditionally Classified Graduate" student who has no course deficiencies, a "B" or higher average in at least 12 quarter units of post-baccalaureate study, and has satisfied the University Writing Skills requirement, should petition the graduate coordinator for admission to the master's degree program with "Classified Graduate" status.

Advancement to Candidacy

A student with "Classified Graduate" status may apply for Advancement to Candidacy after completing at least 16 quarters units of work toward the master's degree with a "B" or higher average.

Before being Advanced to Candidacy, a student's complete course of study must be approved by the Mathematics Graduate Studies Committee.

Degree Requirements

The following departmental requirements must be satisfied:

A. Courses in the following areas must be completed, either as an undergraduate or as a graduate student:

- Set theory
- Number theory
- Geometry

It is strongly advised that courses in probability, statistics, linear programming, and computer science be included in a prospective teacher's background.

B. The 45 quarter units applied to the degree must include:

1. At least 22 1/2 quarter units of 6000-level courses, of which at least 18 quarter units are mathematics courses.
2. An approved course in professional education.

C. A comprehensive examination must be passed. Details are available in the department office.

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills Requirement.

Option III (Applied Mathematics)

Admission

To enter the program with "Classified Graduate" status, a student must have completed a course in computer science and at least 36 quarter units of acceptable upper division mathematics, statistics, or computer science courses with a grade point average of "B" or higher. Included among these units must be courses in:

- Analysis
- Abstract algebra
- Linear algebra
- Differential equations

A student may enter the program with "Conditionally Classified Graduate" status while making up course or grade point deficiencies. Units taken to meet course deficiencies may not be applied toward the master's degree, and no more than 20 quarter units taken while in "Conditionally Classified Graduate" status may be applied to the degree.

A "Conditionally Classified Graduate" student who has no course deficiencies, a "B" or higher average in at least 12 quarter units of post baccalaureate study, and has satisfied the University Writing Skills Requirement, should petition the department graduate coordinator for a change to "Classified Graduate" status.

Advancement to Candidacy

A student with "Classified Graduate" status may apply for Advancement to Candidacy after completing at least 16 quarter units towards the master's degree with a "B" or higher average, including at least two 6000-level mathematics courses with a "B" or higher average.

Before being Advanced to Candidacy, a student's complete course of study must be approved by the Mathematics Graduate Studies Committee. In particular, approval must be obtained for any course(s) taken outside the Mathematics and Computer Science Department.

Degree Requirements

The following departmental requirements must be satisfied:

- A. The following four courses (or their equivalents) must be completed, either as an undergraduate or as a graduate student:

MATH 3301 Analysis II (4)
MATH 3401 Introduction to Probability Theory I (4)
MATH 3750 Numerical Analysis I (4)
MATH 3841 Linear Programming (4)

- B. The 45 quarter units applied to the degree must include:

1. At least 22 1/2 quarter units of 6000 level courses of which at least 18 are mathematics courses.
2. At least two of the following five courses:

MATH 6100 Applied Algebra (4)
MATH 6331 Topics in Differential Equations (4)
MATH 6401 Advanced Probability I (4)
MATH 6870 Computer Simulation (4)
MATH 6750 Topics in Advanced Numerical Analysis (4)

- C. A comprehensive examination must be passed. Details are available in the department office.

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

Upper Division Mathematics, Computer Science, and Statistics Courses Acceptable for M.S. in Mathematics

CS 3120 Programming Language Concepts (Option III only) (4), 3240 Data Structures and Algorithms (Option III only) (4), 3430 Computer Architecture (Option III only) (4), 3660 File Management (Option III only) (4), 4110 Compiler Design (Option III only) (4), 4170 Theory of Automata (Option III only) (4), 4245 Analysis of Algorithms (4), 4560 Operating Systems (Option III only) (4), 4660 Database Architecture (Option III only) (4), 4810 Artificial Intelligence (Option III only) (4), 4840 Computer Graphics (Option III only) (4);

MATH 3122 Abstract Algebra II (4), 3151 Combinatorics (4), 3301 Analysis II (4), 3320 Calculus of Vector Functions (4), 3361 Ordinary Differential Equations (4), 3600 Number Theory (4), 3750 Numerical Analysis I (4), 3841 Linear Programming (4), 4040 History of Mathematics (Option II only) (4), 4100 Mathematical Logic (4), 4121 Advanced Algebra (4), 4130 Set Theory (4), 4151 Graph Theory (4), 4215 Topics in Geometry (4), 4301 Analysis III (4), 4340 Introduction to Complex Variables (4), 4350 Theory of Functions of a Real Variable

(4), 4360 Introduction to Topology (4), 4750 Numerical Analysis II (4), 4841 Topics in Optimization (4);

STAT 3401, 3402 Introduction to Probability Theory I, II (4 each), 3502, 3503 Statistical Inference I, II (4 each), 4401 Introduction to Stochastic Processes (4)

GRADUATE COURSES

6100 Applied Algebra (4)

A survey course covering significant areas of applied algebra. Topics might include applied matrix theory, game theory, convexity and inequalities, and/or algebraic coding theory. Prerequisite: MATH 3100 or equivalent. May be repeated once for credit with consent of Mathematics Graduate Studies Committee.

6121 Topics in Advanced Algebra I (4)

Continuation of MATH 4121. Topics include ideals, commutative rings, modules; field extensions and Galois theory. Prerequisite: MATH 4121.

6122 Topics in Advanced Algebra II (4)

Advanced topics in groups, rings, and fields. May include topics from the classification of groups, abelian groups, unique factorization domains, principal ideal domains, finite field theory, field extensions, modules, vector spaces, homological algebra. Prerequisite: MATH 6121 or consent of instructor.

6201 Topology (4)

Continuation of MATH 4360 Topics may include countability and separation axioms, Tychonoff theorem, metrization theorems, homotopy theory. Prerequisite: MATH 4360.

6250 Topics in Differential Geometry and Topology (4)

Topics in differential geometry and topology such as manifolds, bundles, differential forms, curvature, theorems of Sard-Smale, Poincare-Hopf, Gauss-Bonnet, de Rham, and Hodge. Prerequisites: MATH 3100, 3301, or consent of instructor.

6260 Computational Complexity (4)

(See [CS 6260](#) for course description.)

6331 Topics in Differential Equations (4)

Topics selected from the theory of ordinary and partial differential equations. May be repeated for credit with consent of Mathematics Graduate Studies Committee. Prerequisites: MATH 3100, 3331, 3301 or instructor's permission.

6340 Complex Analysis (4)

Cauchy integral formula, Mittag-Leffler's theorem, Weierstrass' factorization theorem, normal families, Riemann mapping theorem, and selected topics. Prerequisite: MATH 4340.

6350 Real Analysis (4)

Theory of Lebesgue measure and integration on the real line. Selected topics and applications. Prerequisite: MATH 4350.

6375 Introduction to Nonlinear Analysis (4)

An introduction to nonlinear analysis for applications. Basic functional analysis, fixed point theory, Leray-Schauder theory, bifurcation theory, and application to Sturm-Liouville problems and Euler buckling. Prerequisites: MATH 3100, 3300, 3331, or consent of instructor.

6401, 6402 Advanced Probability I, II (4,4)

(See [STAT 6401, 6402](#) for course description.)

6501, 6502 Mathematical Statistics I, II (4,4)

(See [STAT 6501, 6502](#) for course description.)

6510 Analysis of Variance (4)

(See [STAT 6510](#) for course description.)

6750 Topics in Advanced Numerical Analysis (4)

Topics selected from approximation theory; spline theory; numerical linear algebra; the algebraic eigenvalue problem; numerical solutions to non-linear systems of equations, partial differential equations, and boundary value problems. May be repeated for credit with consent of Mathematics Graduate Studies Committee. Cross-listed with [CS 6750](#). Prerequisites: MATH 4750 and 3301 or instructor's permission.

6870 Computer Simulation (4)

(See [CS 6870](#) for course description.)

6900 Independent Study (1-4)

6910 University Thesis (1-6)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also, "University Thesis Writing Guide" available in WA 859.)

Mathematics Education

6010 Seminar in Teaching and Learning Elementary Mathematics (4)

(See [T ED 6010](#) for course description)

6021 Seminar in Diagnosis and Treatment of Learning Difficulties in Mathematics (4)

(See [T ED 6021](#) for course description)

6040 Advanced Curriculum and Instruction in Mathematics (4)

(See [T ED 6040](#) for course description)

Multimedia [MM]

- [M.A. IN MULTIMEDIA](#)
- [COURSES](#)

MULTIMEDIA

School of Arts, Letters, and Social Sciences; School of Business and Economics; School of Education; School of Science

Office: Graduate Programs, Warren Hall 771

Phone (510) 885-3286

Professor:

Christopher L. Morgan (Mathematics and Computer Science)

Associate Professors:

Hadi Bezhad (Management and Finance); Alexander Bordesky (Accounting and Computer Information Systems); Bijan Gillani (School of Education: Interdisciplinary Studies); Tung-Shing Lan (Accounting and Computer Information Systems); James Petrillo (Art); William Thibault (Mathematics and Computer Science)

Assistant Professor:

Anju Relan (School of Education: Interdisciplinary Studies)

Graduate Coordinator:

James Petrillo (Art)

M.A. IN MULTIMEDIA

Program Description

The Multimedia master's degree is a new interdisciplinary program that focuses on the creative and technical aspects of how to use modern computer technology to create, control, deliver, and present information in a variety of different forms.

The primary forms of multimedia presentations are, for the most part, sound and light. However, presentations may include information perceived by other senses (e.g., haptic). The program emphasizes teamwork as a fundamental method for accomplishing large projects. It provides an opportunity for students to practice newly learned skills and to employ these skills in practical situations.

The program is designed to offer both theoretical background and practical experience beyond what is covered in our undergraduate degree programs. It is not just professionally oriented, but is designed to provide opportunities for students to gain a deeper understanding of technology and collaborative effort. This approach is especially important in Multimedia because training in specific systems, on specific machines, and in specific techniques is transitory as these systems, machines, and techniques rapidly evolve. In contrast, design principles and people skills are long-lasting and generally apply to a wide variety of specializations. This foundation is important because many of our students will

have a number of different job classifications during their working lives.

Career Opportunities

This program prepares its graduates to seek employment in positions where they work in teams or individually to produce artistic and commercial multimedia materials. Potential places of employment include film and video studios, production and post-production houses, CD-ROM publishers, corporate training and communication groups, support groups for scientific visualization, support groups for business presentation, and support groups for educational institutions.

Faculty

This is an interdisciplinary program involving all four schools in the university. The program is administered by a Multimedia Program Committee which will have at least one faculty member from each school. Committee members initially will be drawn from the departments of: Art, Management and Finance, Mathematics and Computer Science, Accounting and Computer Information Systems, and Interdisciplinary Studies in Education. The Graduate Dean will serve as an ex-officio member of the Committee.

Prerequisites

Because students enter this program from a variety of backgrounds, they may need additional coursework in technical knowledge provided by our undergraduate programs. This technical knowledge should include fundamentals of audio and video technology. Mastery of this required prerequisite knowledge can be demonstrated by passing MM 4850 Fundamentals of Digital Media or an equivalent course. MM 4850 requires a prerequisite of ART 4200, or CS 1020, or CS 1160 or T ED 5099, or CIS 3270, or equivalent. Possession of this knowledge can also be demonstrated by having completed the undergraduate Multimedia Option in the B.A. degree major in Art, or the Multimedia minor.

Admission

Applicants are individually evaluated for admission to the program on the basis of a combination of the following factors: (a) records of previous academic work, normally a GPA of 3.0 or higher in the last 90 units of undergraduate work; (b) sample of completed work and projects reflecting applicant's talents and abilities; and (c) evidence of professional experience in related fields. Applicants are selected by an admissions panel of the Multimedia Program Committee.

Applications who have not completed all prerequisite requirements may be placed in "Conditionally Classified Graduate" status if they can demonstrate the ability to complete these requirements.

Requirements for Continuation

Once admitted to the program, students must satisfy further requirements, e.g., they must satisfy the University Writing Skills requirement. Students who have completed all the prerequisite requirements and the University Writing Skills requirement are given "Classified Graduate" status. Advancement to Candidacy is a university requirement for graduation. A student with "Classified Graduate" status may apply for Advancement to Candidacy after completing at least 16 quarter units towards the master's degree with a "B" average. Before being Advanced to Candidacy, a student's complete course of study must be approved by the Multimedia Program Committee.

Curricular Requirements

I. Required Courses (29 units)

MM 6101 Mind, Media and Meaning (4)

MM 6102 Content Development for Interactive Multimedia (4)

MM 6103 Management of Multimedia Business (4)
MM 6805 Technical Forum (1) (Must be repeated for a total of 4 units)
MM 6806 Introduction to Multimedia Project Development (3)
MM 6807 Multimedia Research I (3)
MM 6808 Multimedia Research II (3)
MM 6899 Project (4)

II. Electives (16 units)

ART 4210 Interactive Applications and CD-ROM Production (4)
MM 6097 Principles of Instructional Multimedia (4)
MM 6098 Designing Effective Multimedia Instruction (4)
MM 6099 Multimedia/Hypermedia (4)
MM 6310 Multimedia Applications and Development (4)
MM 6410 Telecommunications Design for Multimedia (4)

Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of this catalog. These requirements include the 32-units residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

COURSES

MM 6097 Principles of Instructional Design (4)

Cross-listed with [T ED 6097](#).

MM 6098 Designing Effective Multimedia Instruction (4)

Cross-listed with [T ED 6098](#).

MM 6099 Multimedia/Hypermedia (4)

Cross-listed with [T ED 6099](#).

MM 6101 Mind, Media and Meaning (4)

A seminar on the evolution and role of multimedia and telecommunications technology in the making of culture. Particular focus on the effects of electronic communication on meaning and values.

MM 6102 Content Development for Interactive Multimedia (4)

Writing for interactive structures and designing appropriate interfaces. Conceptualization and production of effective content organization. Structures for interactive media. Prerequisite: MM 6101 and familiarity with at least one development methodology (e.g., computer software development, theater or video scripting, educational materials development).

MM 6103 Management of Multimedia Business (4)

The legal, financial, and managerial environments of multimedia business and the management of multimedia projects, production, R & D, marketing, and finance. Prerequisite: MM 6101.

MM 6310 Multimedia Applications Development (4)

Developing multimedia application programs using high level, object-oriented, programming environments. Study of device-independent approaches to controlling multimedia devices. Student projects to develop multimedia application programs. Prerequisite: CS 4840. Two hrs. lect., 4 hrs. act.

MM 6410 Telecommunications Design for Multimedia (4)

Characteristics, treatment, and transmission of multimedia data. Design of point-to-point, multipoint, and broadcast networks for specific multimedia applications. Project-oriented. Prerequisite: TC 4477 or CS 4590.

MM 6805 Technical Forum (1)

Recent developments in the multimedia industry and the infusion of the latest conceptual and technical advances. Presentations by CS faculty, industry professionals, and student project teams. Maximum credit of 4 units.

MM 6806 Introduction to Multimedia Project Development (3)

Small development projects to establish processes of collaborative work practices, evaluate the potential of individual students to succeed as members of a project team, and identify leadership skills. Prerequisite: "Classified" or "Conditionally Classified Graduate" standing in Multimedia M.A. program. Fee.

MM 6807 Multimedia Research I (3)

Collaborative interdisciplinary student teams begin to develop the multimedia project. Creation and design of audio, video, graphic, literary content, and employment of the latest technology. Prerequisite: MM 6806.

MM 6808 Multimedia Research II (3)

Continuation of multimedia projects begun by the teams established in Multimedia Research I. Project prepared for completion in MM 6899. Prerequisite: MM 6807.

MM 6899 Project (4)

Development of an original professional quality multimedia project which is summarized in a written abstract. Both the project and the abstract are submitted to the program committee which specifies their format. Supervision by a faculty committee, at least one of whom must be a Cal State Hayward faculty member. Required oral defense consisting of a presentation of the multimedia project and evaluation of the contribution of individual team members. Prerequisite: MM 6808.

Music [MUS]

- [M.A. IN MUSIC](#)
- [GRADUATE COURSES](#)

MUSIC

Department of Music
School of Arts, Letters, and Social Sciences
Office: Music and Business Bldg. 1501
Phone: (510) 885-3135 FAX: (510) 885-3461

Professors:

Thomas W. Acord, James M. Bertram, Roberta Brokaw, David H. Eshelman, Frank J. La Rocca, Nathan Rubin, Timothy M. Smith, David B. Stein, Ellen Wassermann, William G. Wohlmacher (Chair)

Associate Professor:

Susan K. Witt

Lecturers:

Brian K. Breeding, Jerry A. Dagg, Lawrence G. Granger, Eric E. Hansen, Janice D. Ortega, Jonathan A. Ring, Jay Rizzetto, Brenda J. Schuman-Post, Carl R. Stanley, Arthur L. Storch, William Trimble, Daniel L. Zinn

Graduate Coordinator:

David B. Stein

M.A. IN MUSIC

Program Description

The Master of Arts degree in Music is designed for those individuals pursuing careers as public or private school teachers; for professional performers and composers; for school and college music teachers who wish to increase their professional effectiveness; and for those who plan further music study at the doctoral level. Courses emphasize scholarly performance and include in-depth work and research in the student's major field of interest. The ultimate goal of the Department of Music is to develop well-informed performers, independent scholars, and inspired teachers.

Faculty

The Department of Music faculty have achieved an enviable reputation for their high degree of academic, professional, and classroom expertise. Faculty, students and alumni are proud of the program and its success in graduating well-prepared students who have continued to work in the music field locally, nationally, and internationally. The programs of the Department of Music are fully accredited by the National Association of Schools of Music.

Areas of Emphasis

Within the M.A. degree program, students will concentrate their study in one of four areas of emphasis: (1) Performance, (2) Composition-Theory, (3) Music Education, and (4) Music History and Literature.

Performance

The performance emphasis is designed to prepare the student as a professional performer or teacher through the advancement of instrumental or vocal skills and the study of selected historical, stylistic, and theoretical courses. An audition is required before a student is accepted into this area of emphasis. Performance of a Graduate Recital is a major goal of this program. Graduate performance students will receive a sixty-minute lesson each week of the regular quarter.

Composition-Theory

This area of emphasis is designed for the student who wishes to continue developing toward a professional level as a composer, and who wishes to continue further study of music theory. Most students in this program aim toward careers as professional composers and teachers. Some continue into doctoral programs at other universities. Composition students are given a sixty-minute lesson each week. The successful completion of a substantial original composition, accompanied by a written analysis, is required for students in this area.

Music Education

Courses in Music Education are designed to deal with the practical aspects of teaching music in the public and private schools. Emphasis is placed on conducting skills, conceptual teaching, rehearsal techniques, organizational procedures, and appropriate pedagogical approaches for all levels of teaching development. Students who adopt this emphasis usually will have had previous teaching experience, but this program is open to all qualified applicants. A standard thesis or project is a requirement in this area.

Music History and Literature

This area of emphasis is designed to give sufficient academic work and background to those students who wish to continue graduate study at the doctoral level or for students wishing to teach in the areas of history, literature and music appreciation. Classes offered by the Department of Music cover all the major historical periods and specific historical studies are offered as seminars. A student who pursues this option is expected to be able to do independent research and will complete a standard thesis.

Scholarships

Scholarships, including the Graduate Equity Fellowships, are available for new and continuing graduate students. Contact the Department of Music office at (510) 885-3135 for more information.

Admission Requirements

Upon making application to the program, a candidate may be admitted for graduate study in the Department of Music as a "Conditionally Classified Graduate" student if: (1) the general requirements for graduate standing have been met, and (2) the student holds a baccalaureate degree with a major in music and an upper division grade point average of at least 3.0 ("B") in music.

Students wishing to enroll in the graduate program who do not have a major in music must first complete an equivalency of the Cal State Hayward B. A. degree major in Music. When the equivalency has been completed, the student will then be eligible for entrance into the graduate program, subject to the entrance requirements stated above.

Graduate Music Advisory Examinations

The Graduate Music Advisory Examinations, given by the Department of Music, must be taken prior to the beginning of the student's first quarter in residence. These examinations include dictation, theory, history and literature, and piano proficiency. Contact the department for the date of these examinations.

Graduate Entrance Audition-Performance, Composition

All graduate applicants seeking admission into the Performance or Composition-Theory areas of emphasis must

perform an audition or submit original scores prior to being accepted for graduate level applied lessons. These evaluations are held prior to the registration period for the Fall, Winter and Spring quarters. Performance auditions are twenty minutes in length. Composition students should submit tapes and scores of their works for evaluation. Contact the department for the date of these auditions.

Classification in the Program

A student may be a "Classified Graduate" student if (s)he:

1. Has completed all undergraduate deficiencies;
2. Has completed at least 12 quarter units in residence at the 6000-level applicable toward the master's degree, including Music 6000, with a minimum grade point average of 3.0;
3. Has passed the Graduate Advisory Examinations in basic piano proficiency, ear training, music history and literature, and music theory. The Graduate Advisory Examinations must be passed by the time the student has completed 20 units applicable to the degree or the student will be dropped from the program;
4. As a graduate student pursuing the history-literature area of emphasis, has demonstrated reading ability in French, German, or Italian; other languages may be substituted by approval of the department;
5. Has fulfilled the University Writing Skills requirement.

Advancement to Candidacy

A student who holds "Classified Graduate" standing may be considered for Advancement to Candidacy when (s)he:

1. Has filed a study program for the completion of the degree which has been approved by the departmental Graduate Studies Committee;
2. If electing the performance emphasis, has successfully demonstrated a graduate standard of excellence before an auditions committee.

Degree Requirements

To be eligible for the Master of Arts degree a student must:

- A. Be Advanced to Candidacy;
- B. Complete 45 units of approved courses of which:
 1. 32 must be completed in residence;
 2. 24 must be at the 6000 level;
 3. A minimum of 9 units must be in one of the four possible areas of emphasis: composition-theory, history-literature, music education or performance;
 4. Not more than 12 units of applied music will be counted in the performance area of emphasis;
 5. Up to, but no more than 3 units of applied music, when approved by an advisor, may be applied toward degree requirements by candidates outside the performance area of emphasis;
 6. At least 3 units in addition to those in the area of emphasis must be completed in each of the following areas: composition-theory, history-literature, music education;
 7. Up to, but no more than 9 units of study outside of music may be counted toward the degree (these units must be approved by a graduate advisor and must be at the 3000 level or above);
- C. Present a thesis or project in one of the following forms:
 1. In the history-literature area, a standard research thesis (University Thesis, MUS 6910);

2. In the composition-theory area, an original composition;
3. In the music education area, either a standard research thesis (University Thesis, MUS 6910) or a project (Project, MUS 6899);
4. In the performance area, a final graduate recital;

D. Pass both written and oral examinations as may be required by the department upon completion of all course work. (Students who do not complete a thesis or project are required to pass a comprehensive examination.)

The candidate must observe the specific departmental requirements stated here and in the Handbook for Graduate Music Majors. In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Postbaccalaureate Studies chapter in this catalog. These include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 grade point average, and the University Writing Skills requirement. The candidate is responsible for seeing an advisor and planning a tentative program, for completing the prerequisites to program approval, and for taking the Graduate Advisory Examinations.

Curricular Requirements (45 units)

- I. Core Classes (12-15 units)
 - MUS 6000 Seminar in Bibliography and Research Methods (3)
 - One course in Theory (3)
 - One course in History/Literature (3)
 - One course in Music Education (3)
 - Applied Music (0-3)
- II. Other Required Studies in Music (9-18 units)
 - Emphasis area classes (9-12)
 - University Thesis or Project (0-6)
- III. Electives (12-21 units)
 - In Music (6-12)
 - In Music, or, with approval, outside of Music (9)
 - Pass written and oral examinations (0)

Performance Activities

While it is not required that graduate music students enroll in performance activities and/or chamber ensembles, it is recommended, and the additional experience earned will be beneficial. Credit earned in these activities is not included in the 45 quarter units required for the M. A. degree in Music.

Upper Division Music Courses Acceptable for Master's Degree

Before enrolling in any undergraduate course the graduate student should be aware of the minimum requirement of 6000-level units and should consult his or her advisor in the department.

- 4054 Instrumentation
- 4110 Seminar in Music Literature
- 4120 Seminar in Music History
- 4435 Seminar in Public School Instrumental Teaching Techniques
- 4440 Seminar in Public School Choral Teaching Techniques
- 4445 Seminar in Elementary Classroom Music Teaching Techniques
- 4501 Seminar in the Art and Science of Vocal Pedagogy I
- 4502 Seminar in the Art and Science of Vocal Pedagogy II

3000-level courses may be acceptable for the master's degree with approval of the graduate advisor.

GRADUATE COURSES

General

6000 Seminar in Bibliography and Research Methods (3)

Analysis of specialized bibliography and methodology employed in the four main areas of music history/literature, theory and composition, music education, and performance. Individual research on selected topics. Required for Advancement to Candidacy. Prerequisite: graduate standing in music or consent of the instructor. (F)

6899 Project (1-3)

Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate standing. Maximum of 3 units per student. (A)

6910 University Thesis (1-6)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)

Music Education

6380, 6390 Advanced Conducting (Choral I, Instrumental II) (3, 3)

Analysis, interpretation, score reading, and actual experience in conducting in an advanced rehearsal situation. May be repeated for credit, with permission of the instructor. Prerequisites: MUS 3380, 3390 or equivalents. (Alt. Y)

6415 Seminar in Developing Music Concepts Through the Rehearsal (3)

Analysis of selected instrumental and choral music to discover theory, structural, and stylistic concepts which may be developed during the rehearsal. Prerequisite: graduate standing in music or consent of instructor.

6420 Seminar in Advanced Instrumental Techniques (3)

Development of techniques and skills applicable to junior and senior high school instrumental music teaching. Discussions and presentations, with focus on practical application. Prerequisite: graduate standing in music or consent of instructor.

Music History and Literature

6100 Seminar in History of Western Music (4)

Advanced review of the history of Western music from the Medieval period to the present. Emphasis on stylistic, formal and theoretical development. Not applicable toward the M.A. degree in music. Prerequisite: graduate standing or consent of instructor.

6105 History of Music, Medieval to Renaissance (3)

A comprehensive study of musical forms and styles from 1100 to 1600 with detailed analyses of representative works and theoretical writings. Prerequisites: graduate standing in music or consent of instructor, MUS 3155-57 or equivalents. (Alt. Y)

6115 Music in the Baroque Period (3)

A detailed study of musical styles, forms, and performance practice from 1600 to 1750, with analyses of representative works. Prerequisites: graduate standing in music or consent of instructor, MUS 3155-57 or equivalents. (Alt. Y)

6125 Music of the Classical Period (3)

A detailed study of the development of musical forms and performance media, from the Rococo to the end of the 18th Century. Prerequisites: graduate standing in music or consent of instructor, MUS 3155-57 or equivalents. (Alt. Y)

6135 Music of the Romantic Period (3)

An intensive study of the structure and development of music from Beethoven through the end of the 19th Century. Prerequisites: graduate standing in music or consent of instructor, MUS 3155-57 or equivalents. (Alt. Y)

6160 Music of the Orient (3)

A study of the tuning systems, instruments, and performance practices in Oriental music, with emphasis on the classical traditions in Indian, Chinese, and Japanese music. Prerequisite: MUS 3034 or consent of instructor. (Alt. Y)

6180 Contemporary Music (3)

Research of developments in music since 1950, including recent 12-tone theory, aleatoric techniques and electronic music. Prerequisites: MUS 3157 and 3034 or consent of instructor. (Alt. Y)

Music Theory

6010 Seminar in Theory and Analytic Techniques of Western Music (4)

Advanced review of the vocabulary and analytic techniques of Western music from modal through set theory. Emphasis on application of techniques to analysis of representative styles. Not applicable toward the M.A. degree in music. Prerequisite: graduate standing or consent of instructor.

6015, 6016 Analysis of Musical Styles I, II (3,3)

Analysis of compositional styles from chant to present day music. Compositional principles are derived from the music with results then generalized according to composer and period. Prerequisite: MUS 3034 or consent of instructor.

6051 Seminar in Theoretical Problems (3)

Special problems in music theory, analysis. Directed reading and reports. May be repeated for credit. Prerequisite: MUS 6015 or 6016 or consent of instructor.

Applied Music

6210-6270 Graduate Applied Music (1-5)

Individual advanced instruction for graduate music majors. Open to graduate students who have been accepted by audition. May be repeated for credit. (A)

6210 Advanced Piano

6211 Advanced Organ

6212 Advanced Harpsichord

6220 Advanced Voice

6230 Advanced Violin

6231 Advanced Viola

6232 Advanced Cello

6233 Advanced String Bass
6234 Advanced Harp
6235 Advanced Guitar
6240 Advanced Flute
6241 Advanced Oboe
6242 Advanced Clarinet
6243 Advanced Bassoon
6244 Advanced Saxophone
6250 Advanced Trumpet
6251 Advanced French Horn
6252 Advanced Trombone
6253 Advanced Baritone
6254 Advanced Tuba
6260 Advanced Percussion
6270 Advanced Composition

Miscellaneous

6900 Independent Study (1-4)

Online University Catalog
California State University - Hayward
Last Update: 11/18/96

Public Administration [PUAD]

- [MASTER OF PUBLIC ADMINISTRATION](#)
- [POST-BACCALAUREATE COURSE](#)
- [GRADUATE COURSES](#)

PUBLIC ADMINISTRATION

Department of Public Administration
School of Arts, Letters, and Social Sciences
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Professors:

Carl J. Bellone, Jong S. Jun (Associate Chair), Richard W. VrMeer (Chair)

Associate Professors:

George F. Goerl, O. Jombo Umeh, Dvora Yanow

Assistant Professor:

Linda Dennard

Adjunct Professors:

Armando Gonzales, Carlos Navarro, Mark Nickerson

Lecturers:

Hillair Bell, Donald Blubaugh, Carol Edlund, Tony Enea, Madeline Fassler, Ted Gaebler, Susan Gonzales, John Holan, Maryann Huckabay, Alton Jelks, Will L. Johnson, Gregg McVicar, Steve Morgan, Glenn M. Shor, Emily Wagner, William Zaner

Institute for Governmental Research and Training:

Jong S. Jun (Director)

Graduate Coordinator:

Jong S. Jun

MASTER OF PUBLIC ADMINISTRATION

Program Description

The Department of Public Administration at Cal State Hayward offers a program of coursework leading to a Master of Public Administration (M.P.A.) degree. Public Administration is a rich and challenging multi-disciplinary field drawing from sociology, anthropology, philosophy, psychology, economics, and urban and organizational studies. The master's degree program provides students with a grounding in major philosophical and social science thinking about the nature of organizations; it helps students to build the intellectual and practical tools they will need to become effective organizational leaders in the public and non-profit sectors. The M.P.A. program is designed to increase the personal and professional effectiveness of people working in public, voluntary, and private organizations. The purpose of the program is to prepare individuals for leadership positions in various organizations with a sense of commitment to social purpose, the public interest, and effective public problem-solving.

The program proceeds on several assumptions: (1) many pressing problems of society must be dealt with through public agencies, and these agencies must be staffed by well-prepared public administrators; (2) public agencies should be more oriented to the public interest and be more client-centered than is generally the case at present; (3) public agencies should be humanistically oriented, encouraging personal contribution, growth, and improvements in the quality of working life; (4) public agencies should nurture and support a critical awareness on the part of public administrators, leading to an ability to challenge and change administrative practice; and (5) public administrators need to find creative and innovative solutions to the problems of providing quality public services in times of resource scarcity.

The department strives to expand the meaning of public administration to include the theory and practice of administration in non-profit and community organizations. Overall, emphasis is placed upon developing student sensitivities to a wide variety of human, social, and organizational realities in order to assist public organizations in formulating and obtaining their goals and striving toward responsible social change. In sum, the faculty believes the challenge of the changing post-industrial era is best met by humanizing governments, by strengthening their capacities for intelligent policy analysis and effective action on behalf of the public interest, and by encouraging in public administrators a welcoming attitude toward learning, creativity and innovation.

Career Opportunities

The M.P.A. program prepares students for careers in government organizations at the federal, state, and local levels as well as in community organizations and the non-profit sector. The program also offers an excellent preparation for doctoral level study for those seeking careers in university teaching and research. The curriculum offers students opportunities to specialize in public management, public policy development and implementation, health care administration, and human resource development and organizational change. Cal State Hayward M.P.A. alumni are well represented in positions of leadership throughout the Bay Area as well as in local, state, and federal agencies in the western states.

Features

Instructional Locations: The department offers evening courses that meet from 6:30 p.m. to 10:00 p.m. at Cal State Hayward and the university's Contra Costa Campus in Concord. The entire degree with the Public Management Option or the Health Care Administration Option may be taken at the Contra Costa Campus. Contra Costa courses are taught by regular faculty and carry regular academic credit. Students may take courses at either of the two locations in whatever combinations desired in pursuit of the M.P.A. degree.

Internship. The Department of Public Administration sponsors a graduate internship program as an integral part of the master's program. The internship program provides students with an opportunity to complement their academic studies with practical administrative experience in a city, county, state, federal, or non-profit agency. The internships vary from three to nine months and average 10 to 30 hours per week. Some pay a stipend, others are on a volunteer basis. An internship is not a job placement, but an opportunity for gaining experience.

Study Abroad. Students may also enrich their programs through foreign study at Leiden University or Erasmus University in the Netherlands. Course work taken at these institutions earn full credit for a total of 13 quarter units toward the M.P.A. degree. Students pay regular Cal State Hayward fees in the exchange program.

Scholarships

Graduate Equity Fellowship
Herman J. McKenzie Memorial Scholarship Fund
Helen Jacobsen Scholarship
Robert Odell Scholarship
Distance Learning Graduate Assistantship

Admission

The M.P.A. degree program is open to students planning a career in public organizations who have a baccalaureate degree from an accredited institution and who have earned an overall grade point average of 3.0 (4.0 basis) in the last two years or 90 quarter/60 semester units of undergraduate work. The Graduate Record Exam is not required.

All applicants should: (1) submit a letter with their application stating their reasons for wanting to pursue the M.P.A. degree, describing their relevant work experience, and explaining their past academic performance; (2) submit two letters of recommendation (letters from prior instructors are preferred). Successful experience in positions of administrative leadership will be considered in evaluating these applications.

Admission to the university and admission to the M.P.A. degree program are separate steps. It is suggested that application for admission to the university (Part A) be filed together with the form for entry into the degree program (Part B).

Student Standing and Progress Toward the Degree

There are three categories of student status which reflect student progress toward the degree: "Conditionally Classified Graduate" student, "Classified Graduate" student, and Advancement to Candidacy.

1. Students achieve "Conditionally Classified Graduate" status when they have been admitted to the M.P.A. degree program, but have not yet completed the prerequisites for "Classified Graduate" status in the M.P.A. degree program.
2. Students achieve "Classified Graduate" status when they have satisfactorily completed the three prerequisites for the M.P.A. degree program or their equivalents, and satisfied the University Writing Skills requirement. (See "Prerequisites for "Classified Graduate" status.")
3. Students are Advanced to Candidacy when they have completed the core courses with a 3.0 or better GPA.

Note: Students who fail to maintain a 3.0 GPA in their prerequisite and graduate courses for two or more consecutive quarters will be academically disqualified from the university.

Prerequisites for "Classified Graduate" Status

As prerequisites to "Classified Graduate" status, students must satisfactorily complete four courses: STAT 1000 Elements of Probability and Statistics, PUAD 4800 Public Administration and Society, PUAD 4830 Organization Theory and Behavior, and PUAD 5000 Philosophy of Public Administration, or request to have one or more of them waived based upon coursework taken outside of the Department of Public Administration within the past 5 years. STAT 1000 and PUAD 4800, 4830 and 5000 should be taken before attempting the core graduate courses. Because no specific undergraduate major is required for admission to the program, when additional deficiencies are apparent, a student may be required to complete preparatory work in the deficient areas before attempting graduate level study.

Degree Requirements

The Master of Public Administration program requires completion of 48 quarter units, distributed among core courses; required and elective courses in an option area; and the graduate synthesis or the departmental or university thesis. Of these, at least 35 units must be completed in residence (transfer units are limited to 13 quarter units); at least 24 units must be in courses in the 6000 series. No course numbered 1000 to 2999 (or equivalent if taken elsewhere) may be used as part of the 48 unit graduate degree program.

No more than 8 units of Independent Study (PUAD 6900) may be counted toward the 48 units required for the degree. Thesis or Graduate Synthesis credit may not exceed 4 units.

A grade point average of 3.0 must be maintained in all 48 quarter units taken to satisfy the degree requirements. All

graduate degree requirements must be completed within 5 years.

Curricular Requirements

A. Required courses (20 units)

- PUAD 6805 Public Policy Formulation and Implementation (4)
- PUAD 6811 Human Organizations and Social Realities (4)
- PUAD 6812 Changing Human Organizations (4)
- PUAD 6831 Research Methods in Public Administration I (4)
- PUAD 6832 Research Methods in Public Administration II (4)

Note: Prerequisite courses (STAT 1000; PUAD 4800, 4830, 5000) should be completed prior to core courses. Core courses should be completed prior to enrolling in option courses.

B. Option Area: 24 units in one of the following four option areas:

1. *Public Policy Development (24 units)*

Four of the following:

- PUAD 6806 Policy Development for Alternative Futures (4)
- PUAD 6807 Analysis of Social Policy (4)
- PUAD 6809 Public Program Evaluation (4)
- PUAD 6810 Science, Technology, and Public Policy (4)
- PUAD 6830 Information Management in Public Organizations (4)
- PUAD 6870 Comparative Public Policy and Administration (4)

Electives: 8 units (selected with the consent of advisor). These units may be taken outside of the department.

2. *Public Management (24 units)*

Four of the following:

- PUAD 6830 Information Management in Public Organizations (4)
- PUAD 6840 Public Finance Administration (4)
- PUAD 6842 Governmental Budgeting (4)
- PUAD 6850 Human Resources Management in the Public Sector (4)
- PUAD 6851 Public Service and the Quality of Working Life (4)
- PUAD 6865 Administration of the Urban Region (4)

Electives: 8 units (selected with the consent of advisor). These units may be taken outside of the department.

Note: PUAD 6845 Local Government Financial Management and/or PUAD 6846 Governmental Accounting and Fiscal Management are recommended for public finance students.

3. *Health Care Administration (24 units)*

Four of the following:

- PUAD 6830 Information Management in Public Organizations (4)
- PUAD 6872 Health and Social Policy (4)
- PUAD 6875 Social Construction of Health Care (4)
- PUAD 6876 Financing Sustainable Health Care (4)
- PUAD 6878 Health Care in Social Transformation (4)

Electives: 8 units (selected with the consent of advisor). These units may be taken outside of the department.

4. *Organizational Change (24 units)*

PUAD 6762 Group Procedures and Facilitation (4)

PUAD 6763 Advanced Group Process for Organizational Change (4)

PUAD 6764 Intervention Strategies for Changing Organizations (4)

PUAD 6765 Organizational Diagnosis and Assessment (4)

Electives: Choose alternative (A) or alternative (B).

Alternative A: Management Focus

Two of the following (8 units), selected with consent of advisor:

PUAD 6830 Information Management in Public Organizations (4)

PUAD 6840 Public Finance Administration (4)

PUAD 6842 Governmental Budgeting (4)

PUAD 6850 Human Resources Management in the Public Sector (4)

PUAD 6851 Public Service and the Quality of Working Life (4)

PUAD 6854 Public Labor Relations (4)

Alternative B: Counseling Focus in Educational Psychology

(This alternative provides more concentrated work in the clinical and counseling areas). Two of the following (8 units), selected with consent of advisor:

EPSY 6400 Family Psychotherapy (4)

EPSY 6750 Foundations of Counseling (4)

EPSY 6751 Counseling and Psychotherapy Theory (4)

EPSY 6781 Healthy Personality (4)

C. Capstone Experience. Choose (1) or (2)

1. The Graduate Synthesis (PUAD 6901) and Comprehensive Examination, or

2. The Departmental Thesis (PUAD 6909) or University Thesis (PUAD 6910) (4 units).

Note: Students in the Counseling Focus (Alternative B) of option 4 (Organizational Change) are not required to take the Graduate Synthesis (PUAD 6901). Their comprehensive exam will be specially designed to cover the Educational Psychology electives.

Incompletes

Students accumulating more than 8 units of work graded "I" may not register for courses applicable to the degree until the "I" grades are removed.

Capstone Experience

Comprehensive Exam, Departmental Thesis, or University Thesis

Students have a choice of completing the program with a Departmental Thesis, University Thesis, or Comprehensive Examination. Students who wish to take the Comprehensive Examination must enroll in PUAD 6901, Graduate Synthesis (4 units) (except for those completing the "Counseling Focus" of option 4). Students completing PUAD 6901 are eligible to take the Comprehensive Exam, which is a proctored essay exam. Students who fail the Comprehensive Exam may retake PUAD 6901 and the Exam one time, or they may choose to enroll in PUAD 6909, Departmental Thesis or PUAD 6910 University Thesis; they may not do both.

Students who wish to take PUAD 6909, Departmental Thesis or PUAD 6910, University Thesis (each carries 4 units of graduate credit) should be aware of the procedural differences between a departmental and university thesis. The university thesis requires a two faculty member committee and submission of the thesis to the university for final approval and binding. Two bound copies are required (one for the department and one for the university library). The

university thesis deadline dates are listed in the catalog each year. The University Thesis Committee meets as called by the student or the faculty. Students completing the departmental thesis may either sign up individually with a faculty advisor or meet in a scheduled graduate course. A departmental thesis is directed by one faculty member. Two copies of the departmental thesis are required for the department.

Grades of "SP" (Satisfactory Progress) may be given for a thesis that is not completed at the end of the quarter. The "SP" grade must be removed within five years or it will become an "F."

Granting the Degree

Upon satisfaction of all requirements for the degree, the department will recommend that the candidate be granted the Degree of Master of Public Administration. Students must file for graduation by the second week of the quarter prior to the quarter in which they expect to graduate.

POST-BACCALAUREATE COURSES

5000 Philosophy of Public Administration (4)

Critical analysis of emerging domestic and global ideas and issues shaping and being shaped by the public sector. Theoretical perspectives on understanding values, ethics, citizenship, public good, and search for democratic administration. Prerequisites: PUAD 4800, 4830.

5900 Independent Study (1-4)

GRADUATE COURSES

6762 Group Procedures and Facilitation (4)

Theories of group dynamics; group processes underlying individual, small group, and planned or indirect organizational change. Interpersonal skills in group facilitation. Lectures, lab. Prerequisite: EPSY 6750 or PUAD 6812, or consent of instructor. Not open to students with credit for EPSY 6762. (F)

6763 Advanced Group Process for Organizational Change (4)

Development of team building skills for organizational change, exploration of interpersonal communication, processes of goal setting, conflict resolution, application of knowledge and skills to public organizational development. Prerequisite: PUAD 6762. Not open to students with credit for EPSY 6763. (W)

6764 Intervention Strategies for Changing Organizations (4)

Facilitator's role in organizational change processes. Relating diagnosis to intervention strategies in planned and indirect organization change; intervention models and case problems. Prerequisite: PUAD 6763. Not open to students with credit for EPSY 6764. (Sp)

6765 Organization Diagnosis and Assessment (4)

Theory and methods of organization diagnosis and assessment; nondirective/directive interview techniques; development of assessment instruments; assessing change capacities; phenomenological and existential analysis of lived time and space; preparation of diagnostic analysis in development of intervention strategies. Prerequisite: PUAD 6812. (Y)

6805 Public Policy Formulation and Implementation (4)

Critical analysis of public policy-making processes; interrelationships between policy formulation, execution, evaluation, and revision; models of policy choices; citizen participation in policy-making; administrative responsibility

in policy development. Prerequisite: PUAD 4800. (A)

6806 Seminar in Policy Development for Alternative Futures (4)

Theory and methods of forecasting alternative futures; anticipating future issues and making policy recommendations; selected topics such as tomorrow's workplace, information society, globalization of public policy and administration, business-government relations. Prerequisite: PUAD 6805. (Y)

6807 Analysis of Social Policy (4)

Selected social policies, such as those concerning the environment, housing, immigration, welfare. Special emphasis on developing analytical and planning techniques inherent in the social policy process. Prerequisite: PUAD 6805. (Y)

6809 Seminar in Public Program Evaluation (4)

Assessment of policy impact and effectiveness; analysis of program objectives; methods of evaluation; developing action oriented evaluation processes; administration of evaluation systems. Prerequisite: PUAD 6805. (Y)

6810 Seminar in Science, Technology and Public Policy (4)

Critical examination of scientific and technological influences on public policy assumptions, processes and outcomes; role of scientific knowledge, expertise, technological imperatives and assessment; normative and cognitive implications. Prerequisite: PUAD 6805. (Y)

6811 Human Organizations and Social Realities (4)

Post-modernist approaches to the understanding of organizational realities, including phenomenological, critical, feminist, and other interpretive approaches; subjective, intersubjective, contextual, historical influences; organizational socialization and personality growth, personal and organizational value development and human effectiveness. Prerequisites: PUAD 4800, 4830 and STAT 1000. (A)

6812 Changing Human Organizations (4)

Application of interpretive, critical, and postmodern theories to changing organizations; use of meaning-centered, experientially grounded theories for understanding organizational cultures; personal praxis in changing organizations. Prerequisite: PUAD 6811. (A)

6815 Ethics and Administrative Responsibility (4)

Ethical dimensions of the public service; value dilemmas, administrative ethics and accountability, responsibility in making public choices, whistle-blowing, the public interest; equality and equity in democracy. Prerequisites: PUAD 6805 and 6811. (Y)

6828 Quantitative Analysis in the Public Sector (4)

Uses and methods of quantitative and computer data analysis in the public sector; emphasis on the application of quantitative data to organizational improvement and policy research; examination of the logic and principles underlying quantitative methods and techniques. Prerequisites: PUAD 4800, 4830, and STAT 1000 (or equivalent). (Y)

6830 Information Management in Public Organizations (4)

Critical examination of the significance of information management concepts, tools, and technologies for public organizations; their implications for policy formulation, analysis, evaluation, organizational change, budgeting, decision making, knowledge management, and client services. Prerequisites: PUAD 4800, 4830, and STAT 1000 (or equivalent). (Y)

6831 Research Methods in Public Administration I (4)

Theory and methods of interpretive research in the public sector. Emphasis on meaning-centered and inductive modes of data-gathering and analysis, including interviews, participant observation, ethnographic methods and the development of grounded theory. Issues in case study presentation and field research narratives. Prerequisites: PUAD 4800, 4830, 5000.

6832 Research Methods in Public Administration II (4)

Positivist research methods; uses of quantitative and computer analysis; application of quantitative approaches to

organizational improvement, policy research, and decision making; implementation of research design; examination of the logic underlying application of quantitative methods and statistical techniques. Prerequisites: PUAD 4800, 4830, and 5000. (Y)

6840 Seminar in Public Finance Administration (4)

Budgetary processes in public policy formation and administrative control; strategic principles of fiscal policy in attaining public goals; public revenues, sources, incident, and effect of principal taxes; intergovernmental aspects of revenue problems; grants in aid. Prerequisite: PUAD 6805. (Y)

6842 Governmental Budgeting (4)

Governmental budgeting as political and social process; administrative control at federal, state, local levels; central budget agencies and budget offices in operating agencies, budgets as planning, policymaking and management instruments; executive-legislative relationships. Prerequisite: PUAD 6805. (Y)

6845 Local Government Financial Management (4)

Analysis of budget preparation strategies and techniques; forecasting of public revenues; examination of legal expenditures and revenue limitations; and evaluation of impact upon budget allocations on programmatic objectives. Prerequisite: PUAD 6840 or 6842. (Y)

6846 Governmental Accounting and Fiscal Management (4)

Understanding basic accounting procedures, basic governmental accounting and fiscal reporting concepts; fund accounting; integrated roles of accounting, budgeting, financial reporting and fiscal management. Prerequisite: PUAD 6805. (Y)

6850 Human Resource Management in the Public Sector (4)

Development of public service concepts and institutions; assessment of public personnel methods and organizations; interaction with other management functions, and with the executive and legislative processes; influence of social and political values upon public service concepts. Prerequisite: PUAD 6811. (Y)

6851 Public Service and the Quality of Working Life (4)

Critical assessment of the nature of work and the quality of working life in public organizations; including a new examination of traditional personnel practices; workplace democracy; cooperative labor/management relations; work and health; productivity and alternative work patterns. Prerequisite: PUAD 6811. (Y)

6854 Seminar in Public Labor Relations (4)

History and present legal status of public labor relations; changing concepts and their implications for existing institutions; processes and values in public personnel systems; dispute resolution; cooperative labor/management committees and other current issues. Prerequisites: PUAD 4830 and 6805.

6865 Administration of the Urban Region (4)

Origins and varieties of administrative institutions in the urban region; assessment and development of institutional alternatives; analysis of fiscal and human resources. Prerequisite: PUAD 6805. (Y)

6868 Land-Use Planning for Administrators (4)

Historical overview of land-use planning in the U.S.; general and specific plans; infrastructure development and cost projections; land-use planning models; California planning law; planning processes: preliminary, tentative and final maps; zoning; political pluralism and the politics of planning. Prerequisite: PUAD 6805. (Y)

6870 Comparative Public Policy and Administration (4)

Comparative methods in public administration; public policy issues in cross-national context; emphasis on development administration, administrative reform, organizational change, planning and implementation of development policies, and globalization of public administration. Prerequisite: PUAD 6805. (Y)

6872 Health Care as Social Policy (4)

The impact of health care administration on broader social policy; the relationship between emerging models of health

care and current health policy issues; transforming the political environment through community based programs; critical analysis of interest-based policy formation. Prerequisite: PUAD 6805. (Y)

6875 Social Construction of Health Care (4)

Origins and structure of health care delivery systems. How ideas about health and medical care are anchored in social and cognitive relationships. Assumptions that inhibit systemic change. Developing transformational strategies. Prerequisite: PUAD 6805. (Y)

6876 Financing Sustainable Health Care (4)

Financing sustainable health care delivery and administration; emphasis on comparing bioeconomics and emerging integrated systems approaches with more conventional market-based financing strategies. Prerequisite: PUAD 6805. (Y)

6878 Health Care in Social Transformation (4)

Strategies for creating healing communities and for renewal of organizational cultures; new career paths in healing communities which emphasize healing as a management practice; the implications of healing communities for social transformation. Prerequisite: PUAD 4830. (Y)

6880 Selected Problems in Public Administration (4)

An investigation of a specific problem area defined by the instructor that is of current interest to the field of public administration. Repeatable if the content is different. Prerequisite: PUAD 6805. (Y)

6893 Internship in Public Administration (1-4)

Academically challenging field placements in half-time or full-time positions with governmental agencies under the supervision of university faculty member. Examination of the relationship of theory to practice in the provisions of public service. "CR/NC" grading only. Prerequisites: PUAD 4800, PUAD 4830, and the consent of the Internship Coordinator. (A)

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the Master of Public Administration degree. CR/NC grading only. Prerequisites: at least a 3.0 GPA; the approval of the Internship Coordinator. (A)

6900 Independent Study (1-4)

6901 Graduate Synthesis (4)

A synthesis of public administration theories and concepts through a critique of major readings in the field. Prerequisite for Comprehensive Examination (except for Counseling Focus students in the Organizational Change Option). Prerequisites: Advancement to Candidacy, completion of all core courses, option area requirements and electives, and consent of instructor. (A)

6909 Departmental Thesis (1-4)

Development and writing of a research paper for submission to the department, which specifies its format. Supervision by a departmental faculty member. Oral defense normally required. Prerequisites: Advancement to Candidacy and consent of thesis advisor. Maximum of 4 units per student. (A)

6910 University Thesis (1-4)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisites: Advancement to Candidacy and consent of Thesis Committee. Maximum of 4 units per student. (See also "University Thesis Writing Guide" available in WA 859.) (A)

Sociology and Social Services [SOC]

- [M.A. IN SOCIOLOGY](#)
- [GRADUATE COURSES](#)

SOCIOLOGY AND SOCIAL SERVICES

Department of Sociology and Social Services
School of Arts, Letters, and Social Sciences
Office: Meiklejohn Hall 3095
Phone: (510) 885-3173

Professors:

A. K. Basu, Diane R. Beeson, Benjamin P. Bowser, Benjamin G. Carmichael, Robert G. Dunn, Juan L. Gonzales, Jr. (Chair), Terry Jones, Sonjia P. Redmond, Karl L. Schonborn, Basil J. Sherlock, Young I. Song, Willem W. Van Groenou

Assistant Professors:

Nan P. Chico, Efren N. Padilla

Graduate Advisor:

Robert G. Dunn

M.A. IN SOCIOLOGY

Program Description

The Department of Sociology and Social Services offers graduate study leading to the degree of Master of Arts in Sociology with a thesis, examination, or special project. The candidate is responsible for the fulfillment of the general requirements stated in this catalog as well as the specific requirements of the department stated below.

Admission ("Classified Standing")

The student should note that admission to the university as a post-baccalaureate student does not in itself constitute admission to the department's program. In general, the program is open to graduates of accredited institutions who have (1) completed coursework equivalent to that required in the lower and upper division core in Sociology at Cal State Hayward; and (2) achieved not less than a 3.0 grade point average in all graduate and undergraduate work; and (3) submitted to the department letters of reference from two former instructors who are familiar with the student's academic work. For "Classified Graduate" status, the student must have fulfilled the University Writing Skills requirement.

In exceptional cases, a student who has earned less than a 3.0, but above a 2.5 grade point average, may be admitted to "Conditionally Classified Graduate" standing by submitting Graduate Record Examination scores (Aptitude Test: quantitative and verbal; and Advanced Test in field of the undergraduate major) at or above the 50 percentile.

Maintenance of "Classified Graduate Standing"

To maintain "Classified Graduate" standing a grade point average of at least 3.0 must be achieved in all courses taken in the approved program, whether taken at Cal State Hayward or at some other accredited institution. If a candidate's grade point average falls below 3.0, the candidate shall be placed on probation at the end of that quarter. If while on probation the candidate fails to make progress toward raising his or her grade point average toward a 3.0, the candidate is subject to disqualification at the discretion of appropriate Cal State Hayward authorities. Disqualified students will not normally be considered for readmission to Cal State Hayward for at least one year after disqualification.

Advancement to Candidacy

A student who holds "Classified Graduate" standing may be Advanced to Candidacy for the master's degree when the student has:

1. Filed an approved program of study with the department
2. Completed at least 12 quarter units of approved graduate level work beyond the baccalaureate degree with a grade point average of 3.0 or better
3. Been recommended for Advancement to Candidacy by the department.

Curricular Requirements (45 units)

Forty-five (45) quarter units of approved courses earned in graduate standing of which 32 quarter units must be completed in residence. With departmental approval, up to 12 quarter units of upper-division work required to remove undergraduate deficiencies can be counted toward the 45 quarter units required for the degree.

All Students must complete (A) and (B) and one of four options under (C).

A. Core Requirements (20 units)

- SOC 6111 Advanced Sociological Research Methods I (4)
- SOC 6112 Advanced Sociological Research Methods II (4)
- SOC 6311 Seminar in Sociological Theory I (4)
- SOC 6312 Seminar in Sociological Theory II (4)
- STAT 3010 Statistical Methods in the Social Sciences (4)

B. Topics Seminars in Sociology (12 units)

- SOC 6800 Topics Seminar (4) (May be taken three times for credit)

C. Students Must Choose One of the Four Capstone Experiences (13 units)

1. *University Thesis*

- a. SOC 6910 University Thesis (9)
Before a student may register for SOC 6910, (s)he must be Advanced to Candidacy.
- b. Electives chosen under advisement from upper-division courses and graduate seminars in Sociology, Statistics, or closely related fields (4)

2. *Comprehensive Examination*

- a. Electives chosen under advisement from upper-division courses and graduate seminars in Sociology, Statistics, Foreign Languages and/or closely related fields (13)
- b. Area Comprehensive Examination (in four areas)
 - (1) Theory
 - (2) Methods
 - (3) Substantive area (elected by candidate with departmental approval)
 - (4) Substantive area (elected by candidate with departmental approval)Before a student may take the Comprehensive Examination, (s)he must be Advanced to Candidacy.

Failure to pass the examination twice results in dismissal from the program.

3. *Project*

- a. Electives chosen under advisement from upper-division courses and graduate seminars in Sociology, Statistics, Foreign Languages, and/or closely related fields (8)
- b. SOC 6899 Project (5)
Before a student may register for SOC 6899, (s)he must have the departmental advisor's approval and be Advanced to Candidacy.

4. *Departmental Thesis*

- a. Electives chosen under advisement from upper-division courses and graduate seminars in Sociology, Statistics, Foreign Languages, and/or closely related fields (8).
- b. SOC 6909 Departmental Thesis (5)
Before a student may register for SOC 6909, (s)he must have the departmental advisor's approval.

Upper Division Courses Acceptable for the Master's Degree

All sociology courses in the 3000-4000 series are acceptable choices in the master's program.

GRADUATE COURSES

6111 Advanced Sociological Research Methods I (4)

Application of scientific methods to the analysis of social phenomena; methodological orientations in sociology; types of research procedure, nature of sociological variables and their statistical treatment. Two hrs. seminar; 4 hrs. lab. Prerequisites: "Classified Graduate" standing and consent of instructor. (Y)

6112 Advanced Sociological Research Methods II (4)

Development of individual projects, illustrating study designs, applications of scientific method in the collection, analysis and presentation of data at advanced levels. Two hrs. seminar; 4 hrs. lab. Prerequisites: "Classified Graduate" standing; SOC 6111. (Y)

6311 Seminar in Sociological Theory I (4)

Modern schools of sociological thought with a focus on functionalism, conflict theory, and symbolic interactionism. Examination of contemporary developments, with an emphasis on postmodern theories. Consideration of theory as a response to social, cultural, political and academic change. Prerequisites: "Classified Graduate" standing and consent of instructor. (Y)

6312 Seminar in Sociological Theory II (4)

Contemporary thematic and conceptual issues in the study of class, gender, race and other categories of difference and inequality. Application of issues to development of students' interests and thesis topics. Major Prerequisites: "Classified Graduate" standing; SOC 6311. (Y)

6800 Topics Seminar (4)

Presentation of selected topics beyond regular courses. Subject will vary from time to time. May be taken three times for unit credit with change in course content. Prerequisites: "Classified Graduate" standing and consent of instructor. (Y)

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Sociology major. CR/NC grading only. Prerequisites: at least a 3.0 GPA; departmental approval of activity. (A)

6899 Project (5)

Development of an original product (i.e., video documentary) which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required.

Prerequisite: graduate standing. Maximum of 5 units per student.

6900 Independent Study (1-4)**6909 Departmental Thesis (1-5)**

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 5 units per student.

6910 University Thesis (1-9)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 9 units per student. (See also, "University Thesis Writing Guide," available in WA 859.)

Special Majors and Certificates

- [GRADUATE SPECIAL MAJORS](#)
- [SPECIAL CERTIFICATES](#)

SPECIAL MAJORS AND CERTIFICATES

Curriculum and Academic Programs

Office: Warren Hall 859

Phone: (510) 885-3716, Fax: (510) 885-4777

Professors:

Carl J. Bellone (Dean of Graduate Programs), Leigh W. Mintz (Associate Vice President, Curriculum and Academic Programs)

GRADUATE SPECIAL MAJORS

Program Description

The University offers the Special Major program for both the M.A. and M.S. degrees. There is not a clear distinction between the two degrees so normally the decision about the assignment of a Special Major reflects the type of degree offered by the departments involved. A Special Major must be a coherent program organized around a broad academic theme. The title should be short (three to five words) and should describe the central academic theme of the program and not the student's career objective unless the two coincide. A graduate Special Major must be fully approved before the student has fewer than 32 quarter units to complete for the degree so the residence requirement can be met.

A department with a regular master's degree program (the sponsoring department) must certify that the prospective Special Major student would be eligible for admission to its program as a "Conditionally Classified" or "Classified Graduate" student. (However, the student who obtains an approved Special Major is not admitted to the regular graduate program, but to the Special Major program under the Office of Curriculum and Academic Programs.)

A graduate Special Major must consist of 45 quarter units of which at least half must be in graduate (6000-level) courses and at least 32 must be in residence in the program at Cal State Hayward. No more than 9 units may be in supervisory courses such as Independent Study, Project, Department or University Thesis, Field Work, Co-op Ed, and/or Internship. Graduate level courses in at least two different departments must be involved in the program. No course enrollment used in the Special Major can be older than five years at the intended time of graduation. A 3.00 grade point average is required for completion of the graduate Special Major. If a student has not satisfied the University Writing Skills requirement, admission is in "Conditionally Classified" status until the Writing Skills Test is passed.

A student is Advanced to Candidacy if, after completion of half the program, a 3.0 GPA is attained by a "Classified Graduate." Failure to achieve Candidacy will void the Special Major contract. The student must comply with the standard master's degree requirements for all students listed in the Graduate and Post-baccalaureate Studies chapter at

the beginning of the graduate section of this catalog.

Procedure

A student who contemplates developing a Special Major must have an overall undergraduate and postbaccalaureate grade point average of at least 2.70 ("B-," Adequate). Forethought and planning need to precede any formal action. An information packet is available from the Admissions and Records Information Counter in the Lobby of Warren Hall and in the Office of Curriculum and Academic Programs, WA 859.

The prospective Special Major student must prepare a one-page prospectus of at least 200 words describing the theme or central academic focus of the proposed program (including the departments to be involved), the reasons why the objective cannot be fulfilled through a regular master's degree program, the academic and experiential background the student will bring to the program, the occupational goals of the student in relation to the proposal, the approximate time frame for completion of the degree, and other pertinent information. A sample prospectus for a hypothetical Special Major is included in the information packet. The student must also contact three faculty advisors in the involved departments, secure their support, and nominate them as his/her Special Major committee.

The prospectus and the names of the sponsoring department chair and three faculty advisors (and their departments) must be submitted to the Office of Curriculum and Academic Programs before the student has fewer than 32 units to complete in the master's degree.

If the proposal appears academically sound and logistically feasible, the Dean of Graduate Programs (Graduate Dean hereafter) will forward copies of it to the proposed faculty committee members along with an explanation of the Special Major policies and procedures, copies of the student's transcripts, and a form for development and approval of the specific program of courses.

The three-person committee and the student must meet at a mutually acceptable time to design the program (i.e. to prepare the list of required and elective courses and to determine the appropriate culminating experience). When this is done, the form is completed, signatures of approval are affixed, and it is returned to the Graduate Dean by the committee chair.

The Graduate Dean will review the proposal and, if it satisfies university requirements, will send a copy to the dean of each school in which the student will be taking courses. The Graduate Dean will also designate the school from which the student is to graduate. The school deans will have ten working days (two weeks) to enter any objections. If none is received, the Graduate Dean will act on the proposal. If an objection is received, the Graduate Dean will hold the proposal pending resolution by the school dean, committee, and the student.

When the proposal is approved, the student must have at least 32 quarter units to complete for the degree. (Units in the quarter in progress can only be counted if the Add/Drop deadline has not been passed.) When the proposed program has been approved by the Graduate Dean, a final copy will be typed in the Office of Curriculum and Academic Programs, the student and the Graduate Dean will sign it, and copies will be distributed. When the student comes into the Office of Curriculum and Academic Programs to sign the papers, s(he) must turn in a completed "Change of Graduate Objective" form. The student will receive a copy of his/her approved Special Major program at this time.

If any alterations of the approved program are necessary, the student initiates the process with the chair of his/her faculty advisory committee. A petition for a Change in Major Requirements needs approval by the advisor (committee chair), the dean of the school from which the student will graduate, and the Graduate Dean. Upon completion of 23 units with a 3.00 GPA and satisfaction of the University Writing Skills Requirement, a "Classified Graduate" student should request the committee chair to submit an "Advancement to Candidacy" form to the Registrar's Office.

The Special Major student files for graduation by filling out the "Candidacy for Graduation" form in the Office of Curriculum and Academic Programs during the first two weeks of the quarter immediately preceding the final quarter before graduation. The graduation check for the Special Major is performed in the Graduation Evaluations section of the Registrar's Office upon receipt of the "Candidacy for Graduation" forms.

A student who is writing a University Thesis should be aware of the thesis requirements and deadlines published in the Catalog and in the University Thesis Writing Guide (available in WA 859). The University Thesis must be submitted to the Thesis Office in Curriculum and Academic Programs no later than three weeks before the end of the last quarter. In addition to the mandatory university copy and any personal copies, the student must furnish at least one bound copy of the thesis to the sponsoring department according to its policy.

SPECIAL CERTIFICATES

A program leading to the award of a Special Certificate must consist of at least 20 quarter units of upper division and/or graduate courses. A minimum grade point average of 2.00 is required for all the courses comprising the Special Certificate program. The program must provide a logical and coherent pattern of preparation for a limited objective. The title of the proposed certificate should be brief (three to five words) and must carry no connotation of meeting a licensing requirement for professional practice.

Procedure

The following procedure applies to Special Certificate programs consisting largely of postbaccalaureate and/or graduate courses.

The student develops a proposed program with the advice and approval of a faculty member knowledgeable in the field of study. A typed copy of the proposed program, with advisor and student approval, is forwarded by the advisor to the dean of the school in which the preponderance of courses will be taken. If the dean approves, s(he) signs and sends the proposal to the Graduate Dean via the Office of Curriculum and Academic Programs. The Graduate Dean sends a copy of the proposal to each of the other three school deans.

The deans have ten working days to enter an objection. If none is received and the Graduate Dean judges the proposal to be sound, the program will be approved. If any school dean objects, s(he) must file written objections with the Graduate Dean within the ten days. These will be considered by the Graduate Dean in deciding whether or not to approve the program.

The student is notified in writing by the Graduate Dean as to the final action on his/her proposal. A copy of an approved program is filed in the student's folder in the Registrar's Office. Upon completion of the Special Certificate program, the student applies to the Registrar's Office and pays the required fee to receive the certificate.

Speech Communication [SPCH]

- [M.A. IN SPEECH COMMUNIAION](#)
- [COURSES](#)

SPEECH COMMUNICATION

Department of Speech Communication
School of Arts, Letters, and Social Sciences
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Phone: (510) 885-3118

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Associate Professor:

Sally K. Murphy, Anne L. Pym

Lecturers:

Deborah M. Alexander, Karen L. Fritts, Agha Saeed

Graduate Advisor:

Anne L. Pym

M.A. IN SPEECH COMMUNIAION

The Department of Speech Communication offers graduate study leading to the Master of Arts degree in Speech Communication. The candidate must observe the general requirements for the Master of Arts degree stated in the Graduate and Post-baccalaureate Studies chapter in this catalog as well as specific departmental requirements stated here and more fully in the Graduate Handbook issued by the department (copies available upon request). University requirements include the 32-unit residence requirement, the 5-year rule in currency of subject matter, the minimum number of units of 6000-level courses, a 3.00 GPA, and the University Writing Skills Requirement. The candidate is also responsible for:

1. consulting an advisor, selecting a graduate committee, and planning a tentative program;
2. completing the prerequisites to the program and all program requirements.

Program Description

Students who complete the Master of Arts degree in Speech Communication will gain understanding and expertise in public, professional, and personal communication. By enabling them to critically analyze and improve spoken and written messages, the program prepares students to play valuable roles in business, industry, government, and education; to pursue doctoral study; and to communicate effectively in day-to-day life.

The study of Speech Communication includes theories and critical methods of rhetoric and communication, as well as critical analysis of messages as they occur within and across public, interpersonal, and organizational contexts, and

across disciplines. The department focuses upon relating theory to practice in ways that recognize and explore the profound influences of culture on how we communicate. Cal State Hayward's Speech Communication program is widely and highly regarded for its excellence in preparing business, government, and teaching professionals and Ph.D. students.

Career Opportunities

Students with a M.A. in Speech Communication are trained to speak, think, and write clearly and effectively. Because these are highly sought after skills, graduates are valuable employees in many jobs, including but not limited to teaching, consulting, human resources, personnel, communication training in organizations, management, banking, sales, government, and politics. The degree is also excellent preparation for Ph.D. and law degrees.

Faculty: Areas of Specialization

The graduate faculty is comprised of seven full-time professors committed to teaching excellence and research. The faculty are well respected and are involved in professional organizations, in campus activities, and in community service.

John Hammerback, Ph.D. 1970, Indiana University; M.A. 1965, University of Oklahoma: modern rhetorical theory, rhetorical criticism, ethnic public address

Sally Murphy, Ph.D. 1986, University of Minnesota; M.A. 1975, University of New Mexico: conversation analysis, research methods, persuasion theory, communication theory, teaching speech communication

Daniel Prentice, Ph.D. 1972, University of California, Los Angeles; M.A. 1967, University of California, Los Angeles: communication theory, organizational communication, female/male communication, communication training in organizations

Anne Pym, Ph.D. 1987, Pennsylvania State University; M.A. 1971, University of Washington: critical/postmodern theories of discourse, rhetorical criticism, modern rhetorical theory, public address, classical rhetoric, ethics of communication, rhetoric of popular culture

Agha Saeed, (lecturer) Ph.D. 1994, University of California, Berkeley; M.A. 1988, University of California, Berkeley: political communication, ethnic public address, Eastern/Middle Eastern/African rhetorical traditions, discourse analytic theories and cross-cultural communication.

Jack A. Samosky, Ph.D. 1974, Indiana University; M.A. 1962, University of Wisconsin, Madison: argumentation, freedom of speech, small group communication, American public address

Gale Young, Ph.D. 1978, University of California, Los Angeles; M.A. 1970, University of California, Los Angeles: intercultural communication, interpersonal communication, communication theory

Areas of Emphasis

Students in the department take regularly offered seminars and upper division courses in rhetorical studies, intercultural communication, organizational communication, and interpersonal communication. In addition, students may choose among special topics seminars, upper division courses, and independent study. Advisors work with students to create individual programs that meet their goals.

Features

Teaching Assistantships: Qualified students may be granted opportunities to teach, to assist in forensics, or to assist a professor on a project. To be eligible for consideration in teaching SPCH 1000 and/or 1004, students must show satisfactory achievement in SPCH 6250 (Teaching Public Speaking and Interpersonal Communication) and have mentored with a faculty member in the course(s) they wish to teach. Interested students should consult with the Graduate Coordinator or the Department Chair.

Forensics Program: First year graduate students who have no experience in forensics may participate on the forensics team. Those who have participated in forensics may gain experience in directing forensics by assisting

with the forensics team.

Communication Laboratory: In addition to classroom study of interpersonal, intercultural, organizational, and public communication, we sponsor a Communication Laboratory open to the campus community that provides communication-related support services. Upper division Speech Communication majors and graduate students serve as tutors who help students research, organize, outline and deliver oral presentations. Students are encouraged to volunteer in the Lab to gain valuable teaching experience and to serve other students.

Annual Conference in Rhetorical Criticism: The Department of Speech Communication hosts the Conference in Rhetorical Criticism in early May of each year. Students from across the nation submit scholarly papers to the Conference where they participate in group sessions to receive written, and oral critique of their work by faculty critics. Commended papers are read before the entire assembly and published in the annual Conference Journal.

Work Study: If you are interested in the work study program, consult with the Financial Aid Office in WA 545.

Internships: With the permission of your committee chair, students may earn up to four units of internship credit by working in the Communication Lab, by mentoring in SPCH 1000 or 1004, by assisting in the Forensics Program, by internship through Co-op Education, by internship in Organizational Communication, or by other work-related internships.

Grad Forum: Grad Forum is the department organization open to all graduate students. The Grad Forum elects officers and meets regularly to socialize, to discuss research, and to discuss concerns and problems. Each year, one graduate student is elected to serve as a student representative to the faculty meetings.

Scholarships and Awards

- The Karl Robinson Scholarship is awarded to outstanding Speech Communication students and M.A. candidates who show potential for excellence in scholarly achievement.
- The Outstanding Graduate Student Award is given to students who demonstrate outstanding scholarship, leadership, and contribution to the program.
- The Outstanding Teaching Assistant Award is given to students who demonstrate outstanding performance in teaching.

Admission

Application for admission includes two parts: (1) submit the university application form, with fee, to the Admissions Office, Warren Hall 200, Cal State Hayward, Hayward, CA 94542; (2) submit the department application form, a statement of purpose, three letters of recommendation, and a sample of scholarly writing to the Graduate Coordinator, Department of Speech Communication, Cal State Hayward, Hayward, CA 94542. Both university and department application forms are available at the Department of Speech Communication Office, Robinson 220. You may be admitted under one of the following:

"Classified Graduate" Standing

For admission with "Classified Graduate" standing to the M.A. program in Speech Communication, students must (1) submit an application to pursue a specific program of graduate study and be accepted by the department and the university; (2) have completed a baccalaureate major in Speech Communication from an accredited institution, or appropriate preparatory coursework approved by the faculty; (3) have maintained an overall grade point average of at least 2.50, and a 3.00 in all Speech Communication coursework; and (4) satisfied the University Writing Skills Requirement.

"Conditionally Classified Graduate" Standing

If a student's GPA is below expected levels in GPA, if a student's speech communication major did not include

prerequisite courses, if a student's degree is in another field, or if the University Writing Skills Requirement has not been satisfied, it may be possible to be admitted with "Conditionally Classified Graduate" standing. In this case, students are admitted graduate students but have conditions to meet. Student status will remain conditional until the work is completed with a minimum 3.0 GPA and the Writing Skills Test has been passed. (See "Degree Requirements" below for prerequisite courses.)

Degree Requirements

The M.A. in Speech Communication requires completion of 45 units in an approved program of study, with a minimum GPA of 3.0. Of the 45 units, at least 23 must be in courses at the 6000 level. No more than 22 units at the 3000 and 4000 levels may count toward graduation.

For those who lack the appropriate preparatory coursework, SPCH 1000 or SPCH 4350, and SPCH 1004 may be required. In addition, the following four-unit courses are required as prerequisites and should be taken at their first offering if not previously completed: SPCH 3411 or 4411; SPCH 3510; SPCH 4810; SPCH 4201; and SPCH 4600. Undergraduate courses which may be applied to the M.A. degree are listed below.

At least 32 units must be completed in residence. A total of eight quarter units of Independent Study may be applied to the M.A.

Writing Skills Requirement

All students must successfully pass the Writing Skills Test to become fully "Classified Graduate" students. Graduate students must take the CSU Writing Skills Test in their first quarter of their residency.

Attainment of "Classified Graduate" Standing

To attain "Classified Graduate" standing, a student must have completed all prerequisites with a "B" average and passed the Writing Skills Test. Notify the graduate advisor immediately upon completion, and request that s(he) complete the necessary paper work.

Advancement to Candidacy

To be Advanced to Candidacy for the M.A. degree in Speech Communication, the student must:

1. be a "Classified Graduate" student in good standing;
2. complete 12 quarter units beyond the prerequisites with at least a 3.0 GPA;
3. chose a graduate committee;
4. submit a study plan for completion of the degree program to the committee chair;
5. satisfactorily defend the thesis proposal or project proposal, if one of these capstones is selected;
6. show evidence of progress and ability to complete the program.

Capstone Experiences

The M.A. degree may be completed in one of the following ways, with approval of the advisor: Thesis, Project, or Comprehensive Examination.

1. Thesis (5-9 units) Upon approval of his/her graduate committee, a student may elect the thesis program; s(he) will carry out research on a specific topic in the field and will report, review, and file the results; s(he) will be examined on the thesis (see 3, below); the thesis will carry nine units of credit if a University Thesis and five units if a Departmental Thesis.
2. Project (5 units) Upon approval of his/her graduate committee, a student may elect the Project option (5 units); enrollment commits the student to a production of a piece of work which is to follow prescribed forms; a permanent record is to be filed in the departmental office.
3. Comprehensive Examination: A student may elect a program made up entirely of a minimum of 45 hours of approved coursework. A comprehensive examination must be passed.

Examinations

1. Students electing the Thesis option will sit for oral examination of the thesis proposal and a defense of the thesis at its completion.
2. Students electing the Project option (5 units) will substitute the oral examination of their project for two hours of written examination.
3. Satisfactory achievement on comprehensive written and oral examinations will be required of students electing the coursework and project options. For the comprehensive examinations, the student will be tested on (a) Rhetorical Theory/Methods/Analysis, (b) Communication Theory/Methods/Analysis, and (c) Area of Emphasis, and, if elected by the student, a cognate field such as history, English, sociology, public administration, etc.

Students must be prepared to be examined on all coursework taken during their graduate study, including all required courses and any coursework in progress during the quarter of examination. *Rhetorical Theory/Methods/Analysis* includes history of rhetoric, rhetorical theory, critical theories of rhetoric, rhetorical criticism, public address, argumentation, etc. *Communication Theory/Methods/Analysis* includes interpersonal communication, organizational communication, intercultural communication, research methods, etc. *The Area of Emphasis* is to be decided in conjunction with graduate committee.

Curricular Requirements

I. Required Courses (16 units)

SPCH 4550 Communication Criticism (4)

SPCH 4600 Modern Rhetorical Theory (4)

SPCH 6000 Introduction to Graduate Study (4)

SPCH 6400 Seminar in Rhetorical Studies (4) (May be repeated for credit)

Note: SPCH 4870 Methods of Research in Speech Communication is strongly recommended.

II. Elective Courses (29 units)

The following courses, or their approved transfer equivalents, are acceptable electives for the degree. Certain of these courses may be required by the student's committee.

Upper Division Elective Courses

(Note that no more than 22 units of the degree program can be in undergraduate courses.)

SPCH 4201 Comparative Traditions of Rhetoric, 4210 Non-Western Rhetoric, 4230 Rhetoric of Social Movements, 4350 Advanced Public Speaking (with permission), 4411 Theories of Argumentation, 4452 American Public Address, 4600 Modern Rhetorical Theory, 4610 Rhetoric of Popular Culture, 4700* Topics in Speech Communication (topics may include: political communication, ethics of communication, persuasion theory, listening, feminist perspectives on communication, non-western theories of rhetoric, rhetoric and the media.), 4810 Communication Theory, 4830 Intercultural Communication, 4840 Organizational Communication, 4842 Communication Training in Organizations, 4850 Female and Male Communication, 4855 Family Communication, 4858 Intimate Communication, 4860 Ethnic Public Address, 4870 Methods of Research, 4880 Communication and Conflict Resolution

Elective Graduate Seminars:

SPCH 6100 Seminar in Topics in Speech Communication (topics may include: argumentation theory, conversation analysis, freedom of speech, conflict resolution, rhetorical criticism, communication ethics, group process, public address), 6200 Internship in Speech Communication (1-4), 6250 Seminar in Teaching Public Speaking and Interpersonal Communication, 6300 Seminar in Critical Theories of Rhetoric (topics may include: postmodernity and rhetoric, ethics and postmodernity, ideology theory, discourse analysis), 6400 Seminar in Rhetorical Studies (topics may include: persona in rhetoric, argumentation, postmodern discourse theory, issues in rhetorical criticism), 6500 Seminar in American Public Address, 6600 Seminar in Organizational Communication, 6800 Seminar in Interpersonal Communication, 6810 Seminar in Intercultural Communication

Other Elective Courses:

SPCH 5183 Directing Forensics (2), 6898 Cooperative Education (1-4 units), 6899 Project (5 units), 6900 Independent Study (1-4 units), 6909 Departmental Thesis (1-5 units), 6910 University Thesis (1-9 units)

III. Capstone Experience

If a comprehensive examination is not selected as the capstone experience, a thesis or project must be completed.

COURSES

At times the subject matter in a course changes significantly and may be taken more than once for credit, with permission of the instructor and the student's advisor. This is indicated in the description of the course.

Post-Baccalaureate

5183 Directing Forensics (2)

Practical experience in organizing and managing a speech and debate program. Prerequisites: SPCH 4183 or consent of instructor. Repeatable once for credit. May be applied to the M.A. degree with approval.

5900 Independent Study (1-4)

May be applied to the M.A. degree with approval.

Graduate

The following graduate seminars, except SPCH 6000 and SPCH 6400, are offered on a rotating basis. Therefore, some 6000-level courses may not appear in a given academic year.

6000 Introduction to Graduate Study (4)

A study of research and bibliographic methodology, library materials, and methods of scholarly reporting in speech, speech-language pathology and audiology. Bibliographic research and a scholarly research paper required. Prerequisites: Graduate standing and consent of instructor. (F)

6100 Topics in Speech Communication (4)

Presentation of selected topics in speech communication beyond regular course offerings. Subjects will vary and will be specified at time of offering. May be repeated for credit with change in course content. Prerequisite: consent of instructor. (Y)

6200 Internship in Speech Communication (1-4)

Supervised experience in a variety of communication activities inside and outside the University. Repeatable up to four units total in the M.A., up to six units total (combined with units from Co-Op Ed.) in the B.A. CR/NC grading only. Prerequisite: department approval. (A)

6250 Teaching Speech Communication (4)

The theories of learning and motivations to learn. Development of strategies to communicate course content to encourage learning for the diversity of students in the communication classroom.

6300 Critical Theories of Rhetoric (4)

Study of how we construct knowledge, language, culture and self through communication; how those constructions open and close possibilities for communication; and the relationship between communication and what it means to be human. Includes postmodern, classical and modern conceptions of rhetoric. May be repeated once for credit. (Y)

6400 Seminar in Rhetorical Studies (4)

Selected topics from the philosophy and theory of rhetoric and public address, with original investigations by the student in areas of particular interest; special attention to the literature relating to selected topics. May be repeated once for credit. (Sp)

6500 Seminar in American Public Address (4)

Advanced historical and critical studies, with emphasis on original research of selected topics and with special attention to the uses of theories of history and primary research materials. May be repeated once for credit. (Y)

6600 Seminar in Organizational Communication (4)

Oral communication in organizational settings including the design, implementation and management of communication systems. Research and theories of organizational communication. May be repeated once for credit. Prerequisite: consent of instructor. (Y)

6800 Seminar in Interpersonal Communication (4)

Critical examination of research, theory, and methods in interpersonal communication; analysis of verbal and nonverbal message forms affecting the nature of human interaction. Prerequisites: SPCH 1004 and 4820 or 4810; or consent of instructor. May be repeated once for credit. (Y)

6810 Seminar in Intercultural Communication (4)

The theory, research and practice of intercultural communication examined in light of the relevant social, political, and historical contexts. Emphasis on particular domestic U.S. or international cultures may vary. Prerequisite: SPCH 4830 or consent of instructor. May be repeated once for credit.

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with offcampus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the M.A. in Speech Communication. CR/NR grading only. Prerequisites: minimum 3.0 GPA, departmental approval of activity. (A)

6899 Project (5)

Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate standing. Maximum of 5 units per student. (A)

6900 Independent Study (1-4)**6909 Departmental Thesis (1-5)**

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 5 units per student.

6910 University Thesis (1-9)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 9 units per student. (See also "University Thesis Writing Guide" available in WA 859)

* May be applied to the M.A. degree with approval.

Speech Pathology and Audiology [SPPA]

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SPEECH PATHOLOGY AND AUDIOLOGY

Department of Communicative Sciences and Disorders
School of Arts, Letters, and Social Sciences
Office: Music and Business Bldg. 1099
Phone: (510) 885-3233

Professors:

Rhoda L. Agin, Norma S. Rees, William S. Rosenthal, Robert A. Veder (Chair)

Associate Professor:

Jan A. Avent

Lecturers:

Sumner Blanchard, Harold Clumeck, Barbara Rockman, Shelley Simrin

Adjunct Faculty:

Bonnie Cabasino, Susan Cariage, Susan Carlson, Mary Jude Doerpinghaus, Gerry Garber, Paula Jenkins, Wendy Mello, Janice Otto, Lynn Roberts, Patti Solomon-Rice

Graduate Coordinator:

William S. Rosenthal

M.S. IN SPEECH PATHOLOGY/AUDIOLOGY

Program Description

The Master of Science degree in Speech Pathology and Audiology is offered in the Department of Communicative Sciences and Disorders. The objective of this program is the professional preparation of each student, academically and clinically, for state licensure, clinical certification by the American Speech-Language-Hearing Association, and the credential as a public school Speech, Language and Hearing Specialist.

Speech-Language Pathology and Audiology are the professions which help adults and children overcome disabilities of speech, language and hearing.

This program, one of the newest in the State, has developed a reputation for rigorous and balanced professional training. The Master's degree program is accredited by the American Speech-Language-Hearing Association.

Career Opportunities

Students who complete the Master of Science degree in Speech Pathology and Audiology are eligible for ASHA

certification, California state licensure, and in most cases the Clinical Rehabilitative Services Credential in Language, Speech and Hearing or Audiology. Speech-language Pathologists work in a variety of settings which include hospitals, schools, rehabilitation centers, community speech and hearing clinics, public schools, and private practice.

Faculty

The Communicative Sciences and Disorders faculty is comprised of four full-time professors and two clinical coordinators. Each of these professional faculty and staff has clinical and/or research interests which encompass the full range of communicative disorders. Regular guest lecturers supplement the academic offerings. Clinical supervision is provided by faculty, professional staff, and by part-time supervisors who are active in the community.

Features

The Speech Pathology and Audiology Program operates the Center for Communicative Disorders, an on-campus facility which provides clinical services to speech, language, and hearing impaired individuals from Bay Area communities. Students who are enrolled in the Speech Pathology and Audiology Master's Program do much of their initial observations and clinical training in this facility. The program also maintains a fully equipped speech and hearing science laboratory for students who wish to pursue research interests.

Internships

Clinical internships are considered part of the professional training of all graduate students. The department places students in settings which meet each student's interests and training requirements. Students may apply for internships in more than two dozen hospitals, rehabilitation facilities, and clinics in the Bay Area. More than twenty-two school districts provide additional internship settings.

Scholarships

- The most usual form of financial aid is in the form of guaranteed student loans. However, other types of financial aid are available. The university supports the following programs:
 - State University Grant
 - Federal Perkins Loan
 - Federal Stafford Loan (including unsubsidized)
 - Federal Work-Study
 - Federal Supplemental Loans for Students
 - Cal State Hayward Scholarships
- The Department of Communicative Sciences and Disorders recommends the award of certain forms of financial aid within the University. They include the following:
 - Graduate Equity Fellowship*, up to \$4000 for certain under-represented minorities or handicapped, for full-time graduate study.
 - Betsy Lindeman Rosenthal Memorial Fund*, non-interest loans, \$500 - \$1500 for graduate students in Communicative Sciences and Disorders.
- The department maintains a current file of scholarship and grant sources from within the University, CSU system and professional associations (ASHA, CSHA, NSSLHA, ASHA Foundation, and NBASLH/BACA).
- Occasionally, funds are available for Research and Teaching Assistantships, and Student Assistantships (clerical).

Admission

"Classified Graduate" Standing

For admission with "Classified Graduate" standing to the program leading to the Master of Science degree in Speech Pathology and Audiology the student must:

1. make application to pursue a specific program of study and be accepted by the department and the university;
2. possess a baccalaureate degree from an accredited college or university with a major in Speech Pathology and Audiology or the equivalent coursework in Speech Pathology and Audiology with another degree. Preparatory coursework completed at other institutions must correspond in scope and content with required and elective courses offered on this campus;
3. possess an overall grade point average of 3.0 or better covering the last 90 quarter units of course work;
4. present evidence of having satisfactorily completed a minimum of 60 clock hours of supervised clinical practica in speech, language, and hearing;
5. submit a statement of purpose which, when reviewed by the faculty as a whole, is considered to demonstrate the level of content, clarity, and style necessary to participate in graduate education at Cal State Hayward;
6. submit three letters of recommendation from appropriate persons who can and do attest to the candidate's high potential for graduate study;
7. fulfill the University Writing Skills requirement.

"Conditionally Classified Graduate" Standing

A student who holds a baccalaureate degree from an accredited institution, but who does not meet other requirements named in (2), (3), and (4) in the previous section may, on recommendation of the graduate faculty in Speech Pathology and Audiology, be admitted with "Conditionally Classified" standing. The status remains conditional until the student has demonstrated capability in preparatory requirements, has received recommendation to "Classified" standing by the Speech Pathology and Audiology Graduate Faculty Committee, and has passed the Writing Skills Test.

Advancement to Candidacy

To be Advanced to Candidacy for the M.S. degree in Speech Pathology and Audiology, the student must:

1. be a "Classified Graduate" student in good standing;
2. complete at least 12 units in graduate work in Speech Pathology and Audiology with a GPA of at least 3.0;
3. complete a minimum of 2 units of SPPA 6056 and/or SPPA 6156 with a grade of "B" or better;
4. file with his or her advisor an approved study plan for completion of the degree program;
5. defend satisfactorily his or her thesis proposal, if a thesis capstone is selected; and
6. show evidence of progress and ability to complete the program.

Degree Requirements

The Speech Pathology and Audiology Program in the Department of Communicative Sciences and Disorders offers graduate study leading to the Master of Science Degree in Speech Pathology and Audiology. The candidate must observe the specific requirements stated in this chapter and more fully in the M.S. brochure issued by the program. (Copies available upon request.) In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

Because it is the objective of this program to prepare each student academically and clinically for any or all of clinical certification by the American Speech-Language-Hearing Association, state credential as a speech, language and hearing specialist, and state licensure, each student's program must be individually planned to reflect prior undergraduate, graduate and professional experience. *Consequently, it is imperative that each student consult a departmental advisor within the first quarter of residence to plan to plan a tentative program.*

The program leading to the M.S. degree in Speech Pathology and Audiology requires completion of at least 45 quarter

units of credit with grades of "A" or "B" from the courses listed below. The work must be completed within five calendar years after admission to the program. At least 32 units must be completed in residence.

I. Required Courses (33 units)

- SPPA 6000 Research Methods in Communicative Sciences and Disorders (4)
- SPPA 6010 Advanced Speech and Hearing Science (4)
- SPPA 6020 Advanced Vocal Rehabilitation (4)
- SPPA 6030 Clinical Organization and Management (4)
- SPPA 6040 Advanced Seminar in Speech, Language, and Hearing Disorders (4)
- SPPA 6050 Neuropathologies in Speech and Language (4)
- SPPA 6060 Advanced Study of Language Disorders in Children (4)
- SPPA 6110 Advanced Audiology (4) or SPPA 6120 Amplification and Aural Rehabilitation (4)
- SPPA 6156 Graduate Practicum in Audiologic Assessment (1)

II. Elective Courses (12 units)

Select 12 units from the following:

SPPA 6052 Clinical Methods and Procedures in Communicative Disorders (2); 6040 Advanced Seminar in Speech, Language, and Hearing Disorders (4); 6056 Graduate Practicum in Speech-Language and Audiology (1-5); 6066 Clinical Internship (2-6) or 6910 University Thesis (2-8); 6110 Advanced Audiology (4) or 6120 Amplification and Aural Rehabilitation (4) (whichever was not taken as a required course); 6156 Graduate Practicum in Audiologic Assessment (1-5 units), 6220 Dysphagia (2), 6221 Principles of Accent Reduction (2), 6222 The Speech Pathologist and Cultural Diversity (2), 6223 Early Language Assessment and Intervention (2), 6224 Issues in Ethics (2), 6225 Dementia (2), 6226 Traumatic Brain Injury (2), 6900 Independent Study (1-5); EPSY 5021 The Exceptional Individual (4), or 5121 Counseling Exceptional Children (4)

In order to meet certification, licensure and credential requirements, and specific student interests, other electives may be chosen from related areas of Biological Sciences, Psychology, Statistics, Human Development, Speech Communication, Health Sciences, and Anthropology. These electives must be approved by a graduate faculty advisor.

Examinations

1. Satisfactory achievement on a comprehensive written examination is required for completion of the program. For this comprehensive examination, the student will select one primary management area, either Speech-Language Pathology or Audiology. The student will take a six-hour examination in this area of emphasis plus a two-hour examination in the other management area. The student need not have taken all courses listed below. However, material covered in these courses may be included in the examinations.
2. Satisfactory achievement on an oral examination will be required following the student's comprehensive written examination and covering all course work and clinical practice. A second oral examination will be required as a defense of thesis for those choosing the thesis capstone.

Capstone Experience

The student may elect one of three programs after consultation with his or her advisor:

1. Forty-five units of approved coursework including Clinical Internship.
2. Forty-five units of approved coursework including University Thesis.
3. Forty-five units of approved coursework without either Internship or University Thesis. Option number (3) should be considered only by students who have previously completed extensive paid professional clinical work in Speech-Language Pathology and/or Audiology.

CLINICAL-REHABILITATIVE SERVICES CREDENTIAL

Language Speech and Hearing/Audiology

The Speech Pathology and Audiology faculty in the Department of Communicative Sciences and Disorders have developed a program of graduate study designed to fulfill the requirements for the *Clinical-Rehabilitative Services Credential in Language, Speech and Hearing/Audiology*. This credential is required for employment in the public schools.

Individuals wishing to obtain this credential must meet all requirements of the Master of Science degree in Speech Pathology and Audiology, including an internship in the public schools (SPPA 6066 for 6 units), and a 4-unit, advisor-approved course in Educational Psychology (EPSY 5021 or 5121).

Because students enter Cal State Hayward with differing academic and clinical backgrounds, it is imperative that each student consult a department advisor in the planning of a course of study within the first quarter of enrollment.

GRADUATE COURSES

6000 Research Methods in Communicative Sciences and Disorders (4)

Applied research methods in the field of communicative disorders, including literature search techniques, research designs, statistical tests, and scholarly report preparation. Required individual research project and written assignment. Prerequisites: graduate standing and consent of graduate advisor. (F)

6010 Advanced Speech and Hearing Science (4)

Selected topics in acoustic and physiological phonetics, speech perception and psychoacoustics with laboratory application in the analysis of normal and disordered speech and voice patterns. Prerequisites: graduate standing and/or SPPA 3854, 3855, or consent of instructor. (F)

6020 Advanced Vocal Rehabilitation (4)

Assessment procedures for differentiating various organic and non-organic laryngeal dysfunctions in adults and children with emphasis on the selection and application of appropriate treatment methods. Prerequisites: graduate standing; SPPA 4853 and/or consent of instructor. (W)

6030 Clinical Organization and Management (4)

Principles and procedures underlying patient selection, appropriate placement, family counseling, and utilization of allied professions in the treatment of adults and children in clinic and school settings. Organizing, administering and supervising speech, language and hearing programs in accordance with pertinent State and Federal regulations. Prerequisites: graduate standing and consent of instructor. (Sp)

6040 Advanced Seminar in Speech, Language and Hearing Disorders (4)

Selected topics in speech, language and hearing beyond regular course offerings. Topics vary to include recent developments in areas such as autism, bilingualism, child language disorders, deafness, fluency, evaluation and management of hearing loss. May be repeated for credit with change in course content. Prerequisites: graduate standing and consent of instructor. (Y)

6050 Neuropathologies in Speech and Language (4)

Seminar in the evaluation and treatment of dysarthrias and other speech, language, and voice problems associated with neuropathologies in children and adults, e.g. cerebral palsy, myasthenia and dystrophies. Prerequisites: graduate standing; SPPA 3853, 4853 and/or consent of instructor. (Sp)

6052 Clinical Methods and Procedures in Communicative Disorders (2)

Basic principles of client treatment and management, including structuring the therapy session, designing therapy hierarchies, data collection, working with families, reinforcement, and documentation. CR/NC grading only. Prerequisite: prior or concurrent enrollment in SPPA 6056. (Y)

6056 Graduate Practicum in Speech-Language and Audiology (1-5)

Development, implementation and evaluation of individualized therapy plans administered in both individual and group settings. Report writing and oral case presentations. Thirty (30) hours of patient contact per unit of credit. May be repeated for credit. Prerequisites: graduate standing; SPPA 4856 and/or consent of instructor. (A)

6060 Advanced Study of Language Disorders in Children (4)

Evaluation and treatment procedures applicable to clinic and classroom settings. Emphasis on the evaluation of semantic and pragmatic functions and the establishment of functional language. Prerequisites: graduate standing; SPPA 4865 and/or consent of instructor. (F)

6066 Clinical Internship (2-6)

Field placement in supervised and approved settings such as public schools, hospitals, and community speech-language and hearing clinics. May be repeated for credit. Prerequisites: graduate standing and consent of graduate advisor. (Y)

6110 Advanced Audiology (4)

The theory and procedures for evaluating auditory development and function in young children and adults. Including, but not limited to, speech audiometry, immittance audiometry, and visual reinforcement audiometry. The application of test data to aural rehabilitation. Prerequisites: graduate standing; SPPA 3859, 4861, 4855 or consent of instructor. (Y)

6120 Amplification and Aural Rehabilitation (4)

Hearing aids and their application in the aural rehabilitation process. The history of hearing aids, current standards, regulations, and electro-acoustic real ear measures and clinical procedures for the selection and evaluation of hearing aids and ear molds. Prerequisite: graduate standing and/or consent of instructor. (Y)

6156 Graduate Practicum in Audiologic Assessment (1-5)

Supervised clinical diagnosis of hearing disorders including history taking, test administration, data analysis, patient counseling, oral and written case presentation. Thirty (30) hours of patient contact per unit of credit. May be repeated for credit. Prerequisites: graduate standing and consent of graduate advisor. (A)

6220 Dysphagia (2)

Principles of the diagnosis and treatment of swallowing disorders including the anatomy/physiology of normal swallowing, the radiographic modified barium swallow, and management/treatment techniques. Prerequisites: graduate standing, SPPA 3854, 4853, and/or consent of instructor. CR/NC grading only.

6221 Principles of Accent Reduction (2)

Basic principles used to improve the pronunciation of non-native speakers of English. Topics include speaker attitudes and expectations, dialect diversity, phoneme contrasts, American English stress and intonation patterns, and syllable and word reduction. Open to SPPA graduate students and Speech Pathologist professionals. Prerequisites: SPPA 3855, 4863; or consent of instructor. CR/NC grading only.

6222 The Speech Pathologist and Cultural Diversity (2)

Lecture materials and experimental activities targeted to the speech-language pathologist and audiologist. Focus on the effects of cultural/linguistic differences on the treatment of communicative disorders. CR/NC grading only.

6223 Early Language Assessment and Intervention (2)

Provides information and develops skills for working with the birth to 3 population at risk for speech and language delays and/or disorders including: children of substance abuse pregnancies, premature birth, chromosomal disorders, developmental delay, and pervasive developmental disorders. Topics include characteristics of these populations, appropriate assessment procedures, family-centered services, and transdisciplinary approaches. Limited to SPPA majors. CR/NC grading only.

6224 Issues in Ethics (2)

The American Speech-Language-Hearing Association's (ASHA) Code of Ethics with specific discussion on conflict of interest, the effect of managed care, and insurance reimbursement. Prerequisite: SPPA major, minor or consent of instructor. CR/NC grading only.

6225 Dementia (2)

Causes and management of dementia. Special consideration of speech-language clinical issues. Prerequisite: consent of instructor. CR/NC grading only.

6226 Traumatic Brain Injury (2)

Seminar in the evaluation and treatment of cognitive-linguistic deficits following traumatic brain injury. Prerequisite: consent of instructor. CR/NC grading only.

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with offcampus paid or volunteer activities. May be repeated for up to 4 units. Not applicable to the M.S. in Speech Pathology. CR/NC grading only. Prerequisites: at least a 3.0 GPA; departmental approval of activity. (A)

6900 Independent Study (1-5)**6910 University Thesis (2-8)**

Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 8 units per student. (See also, "University Thesis Writing Guide" available in WA 859.)

Statistics [STAT]

- [M.S. IN STATISTICS](#)
- [GRADUATE COURSES](#)

STATISTICS

Department of Statistics
School of Science
Office: North Science 229
Phone: (510) 885-3435

Professors:

Richard Drogin, Dean H. Fearn, Richard Y. Kakigi, Elliott Nebenzahl, Julia A. Norton, Michael L. Orkin,
Heebok Park, Bruce E. Trumbo

Graduate Coordinator:

Bruce E. Trumbo

M.S. IN STATISTICS

Program Description

The Department of Statistics offers graduate study leading to the degree of Master of Science in Statistics. The program is flexible in order to serve the needs of students with varying backgrounds in Statistics and Mathematics and with different career objectives. All students, however, are expected to master a wide variety of applied statistical and probabilistic techniques and the theoretical foundations on which these techniques rest. They are expected to be familiar with recent developments and to be able to use the statistical literature to learn new techniques and theories throughout their professional careers. In addition to the general requirements stated elsewhere in this catalog, a student must satisfy the departmental requirements stated in the following paragraphs.

Admission Requirements

1. A baccalaureate degree.
2. Differential and Integral Calculus, including multiple integration and infinite-series.
3. Departmental approval.
4. For "Classified Graduate" status, fulfillment of the University Writing Skills Requirement.

Advancement to Candidacy Requirements

1. Completion of at least 15 quarter units of approved work beyond the baccalaureate, with an average of "B" (3.0) or higher.
2. Departmental approval. (May be contingent on a written or oral qualifying examination.)

Degree Requirements

Successful completion of the following unit, grade, and course requirements.

A. Unit and Grade Requirements

The M.S. program consists of at least 45 quarter units of approved upper division and graduate work. Of these, at least 23 units must be approved graduate (6000 level) courses. All work applied toward the 45 units must be at an average grade of "B" (3.0) or higher, and no more than 5 of the units applied toward the 23 unit graduate-level requirement may be at a grade below "B."

B. Course Requirements (45 units)

Elective courses in sections (2) and (4) below must be approved in writing in advance by an advisor.

1. Required Upper Division Courses (20 units)

MATH 3300 Analysis I (4)

STAT 3401 Introduction to Probability Theory I, (4)

STAT 3402 Introduction to Probability Theory II, (4)

STAT 4401 Introduction to Stochastic Processes (4)

STAT 4601 Regression and Experimental Design (4)

Students entering the program with acceptable credit for any of these courses (or equivalents) will select additional courses from section (2) or (4) below.

2. Upper Division Elective Courses

Additional upper division courses to complete unit requirements may be selected from among the following:

3502, 3503 Statistical Inference I, II (4 each)

3510 Sampling Procedures for Surveys (4)

3910 Statistical Software Designed for Microcomputers (4)

4515 Multivariate Analysis (4)

4860-99 Undergraduate Seminar (2-4 each)

4910 Statistical Programming (4)

Courses from other departments designated as acceptable by the graduate advisor.

3. Required Graduate-level Courses (12 units)

STAT 6401 Advanced Probability (4)

STAT 6501, 6502 Mathematical Statistics I & II (4 each)

4. Graduate-level Elective Courses

Additional graduate-level courses for a total of at least 23 units at the 6000 level and 45 units overall are required.

The graduate advisor may approve for inclusion in a student's program any 6000-level Statistics course or any course outside the department. A maximum of one course from outside the department may be counted in the 23 unit requirement.

Comprehensive Examination

Successful completion of a departmental examination is required. This examination will cover the contents of the courses in the candidate's approved program. Other material may be included, the general nature of which will be specified in advance. This written examination will generally be given only in the Fall and Spring quarters, and will cover both applied and theoretical topics.

In each quarter of offering the department chair will appoint three or more members of the graduate faculty to administer the examination. Each student will generally take the comprehensive examination in the quarter s(he)

intends to graduate or in the preceding quarter, after consulting with his or her advisor. The examination committee is the final departmental authority in deciding eligibility to take the examination.

Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter in the graduate section of this catalog. These include the 32-unit residence requirement, five year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 grade point average, and the University Writing Skills requirement.

GRADUATE COURSES

6401, 6402 Advanced Probability I, II (4 units each)

Advanced treatment of probability theory and its applications. Includes topics from among combinatorial techniques, conditioning, characteristic/generating functions, limit theorems, modes of convergence, renewal theory and Markov processes. Cross-listed with [MATH 6401, 6402](#). Prerequisites: STAT 4401 and MATH 3300. (Y)

6501, 6502 Mathematical Statistics I, II (4 units each)

Theory of point and interval estimation and hypothesis testing, from the Neyman-Pearson point of view. Certain topics from among decision theory, non-parametric inference, sequential analysis, multivariate analysis. Cross-listed with [MATH 6501, 6502](#). Prerequisites: MATH 3300 and STAT 3402, or consent of instructor. (6501-F; 6502-W)

6510 Analysis of Variance (4)

The theory and application of the statistical methods of experimental design; the analysis of variance and covariance. Cross-listed with [MATH 6510](#). Prerequisites: MATH 2101 and STAT 3503, or consent of instructor. (Y)

6860-69 Selected Topics in Graduate Probability and Statistics (2-4 units each)

Probability and/or Statistics extending beyond regular courses. Variable content to be specified at time of offering. May be repeated for credit. Prerequisites: graduate standing and consent of instructor. (Y)

6870-79 Seminar in Probability and Statistics (2-4 units each)

An intensive study of a selected topic in probability and/or statistics from current literature emphasizing student participation. May be repeated for credit. Prerequisites: graduate standing and consent of instructor. (Y)

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the Statistics major. Prerequisites: at least 3.0 GPA and departmental approval of activity.

6900 Independent Study (1-4)

Teacher Education [TED]

- [GENERAL INFORMATION](#)
- [CREDENTIAL PROGRAMS](#)
- [M.S. IN EDUCATION](#)
- [CERTIFICATE PROGRAMS](#)
- [GRADING PRACTICES and DISQUALIFICATION](#)
- [COURSES](#)

TEACHER EDUCATION

Department of Teacher Education
School of Education and Allied Studies
Office: Art and Education Bldg. 235
Phone: (510) 885-3027, FAX: (510) 885-4632

Professor Emerita:

Esther Railton-Rice

Professors:

Antonio Andrade, Ellsworth A. Berget, Carmen L. Canales, Phillip E. Duren (Associate Chair), Jean L. Easterly, Victoria C. Mui, Margaret C. Needels, Herminio C. Rios, James L. Shanker, David R. Stronck, James J. Zarrillo (Chair)

Associate Professors:

Joan D. Davenport, JoAnn Aiello Hatchman, Valerie Helgren-Lempesis, Alvin E. Howe, Dana Martin-Newman

Assistant Professor:

Leticia Ramirez-Lopez

Lecturer:

Dien thi To

Graduate Coordinator:

Dana Martin-Newman

GENERAL INFORMATION

The Department of Teacher Education offers post-baccalaureate and graduate programs to prepare teachers who are committed to improving school practices for California's diverse student populations and who can model such practices in their own classrooms.

Career Opportunities

The demand is rapidly increasing for teachers at all grade levels and in all subject matter areas. An expanding diverse student population, combined with the need to replace retiring teachers over the next several years, indicates a consistent job market. The current public interest in raising salaries and improving the teaching environment also creates more attractive career possibilities.

Faculty

The Department of Teacher Education faculty is comprised of professors committed to preparing teachers and other educational professionals to be effective in California's diverse schools. The faculty have recognized expertise and are active in the professional discipline of Teacher Education. They are supplemented by a select group of lecturers drawn from respected universities and public schools in the Bay Area.

Programs Offered

The Department of Teacher Education offers Multiple and Single Subject Teaching Credential Programs, a Master of Science Degree in Education, a Reading Specialist Credential Program, a Children's Literature Certificate Program, and a Cross-cultural, Language and Academic Development Certificate Program (CLAD).

Note: The Multiple and Single Subject Programs, the Reading Specialist Program, and the CLAD Certificate Program are accredited by the Commission on Teacher Credentialing (CTC) and the National Council for the Accreditation of Teacher Education (NCATE).

Option Areas

The Department of Teacher Education offers a Master of Science in Education with two Options: Curriculum, including seven patterns, and Reading Instruction.

Special Features

Credential Program Teams

All credential candidates become part of designated teams, each consisting of approximately 35 members, university faculty, and public school teachers and administrators as student teacher supervisors. The team stays together for the full credential program, providing support and identity.

Field-Centered Credential Program Placements

Much of the program is conducted in public school settings. Student teaching/paid teaching occurs for three quarters, thereby integrating credential classes with real-life teaching experiences. Student teachers will be assigned to teaching experiences with children/young adults of racial, ethnic, or cultural backgrounds different from themselves.

Selection of Public Schools for Credential Programs

Selection of public schools for student teaching placement is based on the willingness of the schools' personnel to become part of a team and on evidence of their commitment to educational improvement.

Clear Credential Classes

State required Clear Credential classes for the California Professional Clear Credential are offered quarterly, at both the Hayward and Contra Costa campuses, during late afternoons or early evenings. The three clear credential classes are: (1) T ED 5002 Teaching Health Education; (2) T ED 5099 Classroom Computer Technologies, 4 units; and T ED 5500 Developing Programs for Special Students in Regular Classrooms. These classes are open to regular Cal State Hayward matriculated students and Open University students. Cardiac Pulmonary Resuscitation (CPR), is an additional state requirements for the Professional Clear Credential and can be taken at Cal State Hayward (P E 1650), the Red Cross, or most hospitals.

Scheduling and Location of Master of Science, Specialist Credential, and Certificate Offerings

Courses leading to the Master of Science in Education, Reading Specialist Credential, and Certificate Programs are offered on the Hayward and Contra Costa campuses. A student may combine courses at the two locations. Most graduate classes are offered in the late afternoon and evening, except in Summer quarter when both day and evening classes are scheduled.

The Walter J. McHugh Reading Center

The Walter J. McHugh Reading Center contains all major reading series used in the schools of California and a wide selection of professional texts, journals, and materials in the field of reading, language arts, and social studies. The Environmental Education Resource Collection, a unique collection which holds and circulates environmental education instructional materials and references, is also housed in The McHugh Reading Center. The Cal State Hayward main library houses the Ruth K. Carlson Juvenile Literature Collection, one of the finest and largest of its kind.

The School of Education Credentials Office

The School of Education Credentials Office is provided as a service to all students and faculty involved in the credential programs. The Credentials Office provides the evaluations of coursework upon which the faculty make decisions as to the admission of an applicant to a program, as well as the recommendation for a credential upon a candidate's completion of a program. The Credentials Office also serves candidates filing new applications for the Preliminary Credential with CLAD emphasis when all work has been completed at Cal State Hayward. If an individual wishes to enter the Partial Credential program, there is a \$55.00 service charge to evaluate eligibility for current California credentials.

Scholarships

There are scholarships available for entering credential candidates, current credential candidates, and graduate students. Current offerings include such scholarships as the Laura Settle CRTA Scholarship, Virginia Ann Schlieper Multiple Subject Scholarship, John Hancock Mathematics Scholarship, Associated Students Scholarships, Helen Jacobsen Scholarship, Alpha Delta Kappa and Delta Kappa Gamma Scholarships, and the Ruth Carlson Student Teaching Scholarship. Applications are available through the Department of Teacher Education Office beginning in March and are collected during the Spring quarter. Awarded recipients are notified in June.

Other scholarships include the CSU African American Scholarship Program (Lori Knight, WA LM 57, 510-885-3982), the Cooperative Education Community Service Scholarship Program (pre-candidates: Marlene Scherer Stern, WA 509, 510-885-3621), the Graduate Equity Fellowship Program Award (Carl Bellone, WA 771, 510- 885-2295), and the National Hispanic Scholarship Awards (Albert Camacho, WA LM 59, 510-885-3982).

For information concerning the CSU International Programs, other study abroad programs, and student exchanges contact John Manion, WA 859, 510-885-3718.

There are loans available to current credential and graduate students. Current offerings include the Faculty and Friends Student-Teacher Loan and the APLE student loans available for those candidates who have current student loans with no defaults (Financial Aid Office, WA 545, 510-885-3616).

Admission

Before applying for admission, all applicants should seek current application information from the Department of Teacher Education Office and/or make an appointment with the Graduate Coordinator.

Note: Department application deadlines differ from those listed by the university. Please contact the department for appropriate program application periods.

I. Multiple or Single Subject Credential Programs

Multiple Subject applicants must file with the Department of Teacher Education:

1. a completed University "Graduate and Post-baccalaureate Application"
2. a graduate application fee
3. a statement of residency if new to Cal State Hayward
4. two official copies of each transcript (and one additional copy or photocopy for the Department of Teacher Education)
5. a Department Application Form for the Multiple Subject Credential Program
6. verification of all prerequisites.

Single Subject applicants must file with the Department of Teacher Education:

1. a completed University "Graduate and Post-baccalaureate Application"
2. a graduate application fee
3. a statement of residency if new to Cal State Hayward
4. two official copies of each transcript
5. a Department Application Form for the Single Subject Credential Program
6. verification of all prerequisites.

Prerequisites

Each candidate must complete the following prerequisites before entering the Multiple Subject and Single Subject Teaching Credential Programs:

- Multiple Subject Preparation Program such as the Liberal Studies, Credential Track, or pass the MSAT (Multiple Subject only); or a Single Subject Matter Preparation Program in your subject area or pass the Praxis and SSAT in your subject area (Single Subject only).
- U.S. Constitution course or exam
- Public Speaking course; SPCH 1000 or 4350 at Cal State Hayward or its equivalent elsewhere.
- MATH 4021 - Number Systems course (Multiple Subject only) or its equivalent elsewhere.
- CBEST -- California Basic Educational Skills Test, passing score
- Appropriate GPA. The required GPA varies depending upon the undergraduate major and where the degree was earned.
- Three letters of recommendation verifying successful experiences in school/school-like settings. Prior experience is required. T ED 3001, Exploring Education, may be taken as part of this requirement.
- Letter of reference from a permanent faculty member at the university in which you have taken your education courses (Individualized program only).

Selection Process

All candidates will be interviewed in the Art and Education Building. When you are called for an interview, you will be given the date, time and room number. Be prepared to discuss your status regarding prerequisites, employment history (paid and volunteer), and experience and interest in working with children/young adults. For the Individualized Credential Program, bring all transcripts. Applicants should be aware that a criminal record may preclude the issuance of a credential. Contact the Department of Teacher Education Chair if this is a concern.

Selection of applicants for credential programs is made by the faculty who use their professional judgment in applying the criteria listed in this catalog. The aim is to select those candidates who show promise of becoming the best possible teachers of children and youth.

Denial of admission may be for one or more of the following reasons: failure of applicant to fulfill the prerequisites, an incomplete or late application, the faculty finds one (or more) of the admissions criteria is not met at a satisfactory level, the faculty finds the applicant to be less likely to succeed as a teacher than other applicants, the applicant has been convicted of a crime which will bar granting of a credential, and/or insufficient places in a program because of the allocation of university resources or surpluses of candidates in particular subject matter areas.

Applicants accepted into a credential program must immediately:

- file State Forms 41-CIC (Application for Character and Identification Clearance) and BID-7 (2-82) (two fingerprint cards), and submit a TB clearance dated within the past calendar year. A nonrefundable partial fee (money order or certified check made payable to Commission on Teacher Credentialing) must accompany Form 41-4. Upon completion of the program, applicants must pay the remaining credential application fee. (Contact the Credentials Office, AE 250, 510/885-2272.)

or

- file a copy of a previous/current California credential and a TB clearance dated within one calendar year of application.

II. Master of Science, Reading Specialist Credential, and Certificates

All Master of Science, Reading Specialist Credential, and Certificate Program applicants must file with the university Admissions Office:

1. a completed University "Graduate and Post-baccalaureate Application"
2. a graduate application fee
3. a statement of residency if new to Cal State Hayward
4. one official copy of all transcripts from all accredited institutions attended
5. a Department Application Form
6. a Personal Data Summary Form

Upon admission, the student is assigned an advisor. With the advisor, the student completes and files an approved program.

Prerequisites

All applicants must: (1) hold a baccalaureate degree from an accredited institution, (2) have earned an undergraduate GPA of 2.5 or better in the last two years or 90 quarter/60 semester units and a GPA of 3.0 or better (on a 4.0 scale) in all applicable post-baccalaureate work, (3) hold a valid basic California teaching credential, except those students applying for the early childhood education and/or environmental education patterns in the M.S. Education Option in Curriculum, (4) have verified three years of successful teaching experience, as defined by the department.

Program Requirements

Each student is responsible for meeting university and department requirements and following procedures applicable to the program enrolled. Each student is responsible for:

1. pertinent information in the University Catalog;
2. relevant information in department bulletins, forms and handouts;
3. meetings with the advisor.

CREENTIAL PROGRAMS

Credential requirements specified in this catalog are subject to changes made by the State of California. Contact the Department of Teacher Education for current regulations.

Multiple Subject Credential Program

There are currently five program variants within the Multiple Subject Credential Program:

- Multiple Subject Credential Program with Cross-cultural, Language, and Academic Development (CLAD) Emphasis
- Multiple Subject Credential Program with Bilingual (Spanish-English) Cross-cultural, Language, and Academic Development (BCLAD) Emphasis
- Individualized Multiple Subject Credential Program
- Partial Multiple Subject Credential Program
- School Districts/Cal State Hayward Partnerships Multiple Subject Credential Programs

I. Types of Multiple Subject Credential Programs

A. *The Multiple Subject Credential Program with Cross-cultural, Language, and Academic Development (CLAD) Emphasis*

This is a four-quarter team program. Usually four teams begin in the Summer quarter, two on the Hayward campus and two on the Contra Costa campus. One team begins in the Winter quarter on the Hayward campus. Some teams have classes during the day and late afternoon; others in the evening. Student teaching is either three quarters in two different grade levels, K-3 and 4-8, including one quarter in a multicultural setting, or in a paid position and one other quarter of student teaching. The CLAD Emphasis requires the following additional requirements beyond the "basic" Multiple Subject credential: (1) 9 quarter units (or 6 semester units) of a foreign language; (2) T ED 5038 Multicultural Education, 4 units; and (3) T ED 5370 Second Language Acquisition, 3 units.

B. *The Bilingual/Cross-cultural Emphasis in Spanish Multiple Subject Credential Program (BCLAD) Emphasis*

The BCLAD Credential Program is a four-quarter team program -- Summer, Fall, Winter, and Spring. It adheres to all the requirements of the Multiple Subject Credential Program. All candidates must speak and write fluently in both Spanish and English and take entry and exit examinations. In addition, T ED 5038, 5367, 5370, and 5371 (13 units) are required. Classes are taken on the Hayward campus with an evening Multiple Subject team, along with classes specifically required for the BCLAD emphasis. Candidates may student teach or have a contracted, paid, full or part-time (.5), K-8 teaching position.

C. *The Individualized Multiple Subject Credential Program*

This program is offered to approved candidates who have taken some credential courses in the past (Cal State Hayward and elsewhere), but need to finish all the requirements for a California Professional Clear Credential. Individualized Multiple Subject candidates can enter any quarter. Classes are taken with a Multiple Subject team. Candidates may student teach or have a contracted, paid, full or part-time, K-8 teaching position. If CLAD certification is desired, candidates must complete the CLAD courses (7 quarter units plus 9 quarter units of a foreign language).

D. *The Partial Multiple Subject Credential Program*

This program is offered to approved candidates who hold an out-of-state credential and a California Preliminary Credential, and who must complete course work for a California Professional Clear Credential. Candidates' previous work is evaluated by the Credentials Office and requirements for the Professional Clear Credential are identified. Candidates can enter any quarter. Classes are taken with a Multiple Subject team. Candidates do not have to apply to the University, but can take courses through Open University. If CLAD certification is desired, candidates must complete the CLAD courses (7 quarter units plus 9 quarter units of a foreign language).

E. *The School Districts/Cal State Hayward Partnerships Multiple Subject Credential Programs*

These are four-quarter team programs and adhere to all the requirements for the Multiple Subject Credential Program. The partnership programs are joint ventures between Cal State Hayward and chosen school districts. Selected candidates are interns in the districts and generally have on-site classes. Classes are conducted by Cal State Hayward faculty and school district teachers and administrators. Classes are during the late afternoon and evening. Although Cal State Hayward Summer quarter classes start in late June, classes for the Partnership Programs typically start at the end of July, thereby giving candidates time to either complete any outstanding prerequisites or take courses for the California Professional Clear Credential and/or CLAD certification scheduled in the first five weeks of the Summer quarter. The CLAD classes include 9 quarter units of a foreign language plus T ED 5038 and 5370.

II. **Curricular Requirements (50 units)**

The Multiple Subject Credential candidates take the following courses on either the Hayward or Contra Costa campus:

T ED 5350 Curriculum and Instruction: Mathematics in the Elementary School (3)

T ED 5351 Psychological Foundations of Education (3)

T ED 5352 Curriculum and Instruction: Reading in the Elementary School--A (3)
T ED 5353 Teaching Models (3)
T ED 5354 Student Teaching I (4)
T ED 5355 Sociological Foundations of Education (2)
T ED 5356 Curriculum and Instruction: Reading in the Elementary School--B (2)
T ED 5357 Curriculum and Instruction: Teaching Science in Elementary School (3)
T ED 5359 Student Teaching II--Postgraduate Program (6)
T ED 5360 Curriculum and Instruction: Language Arts in the Elementary School (2)
T ED 5361 Student Teaching III--Postgraduate Program (13)
T ED 5364 Classroom Management--Postgraduate Program (2)
T ED 5365 Curriculum & Instruction: Social Studies in the Elementary School (2)
T ED 5366 ESL Methods for Teaching LEP Students (2)

- *Additional requirements for CLAD (16 units)*

9 quarter units of foreign language

T ED 5038 Multicultural Education (4)

T ED 5370 Second Language Acquisition (3)

- *Additional requirements for BCLAD (13 units minimum)*

Exit-level proficiency in Spanish at FSI-3

T ED 5038 Multicultural Education (4)

T ED 5367 Bilingual Methods (3)

T ED 5370 Second Language Acquisition (3)

T ED 5371 Classroom Implications of the Culture of the Latino Child (3)

- *State Requirements*

The State requires that all Multiple Subject candidates: (1) have two different grade level placements, K-3 and 4-8, (2) teach in a multicultural setting for one quarter, (3) if employed in a private school, be placed in a public school for one quarter, and (4) if employed in a special education classroom, be placed in a "normal" classroom for two quarters. It may be necessary for some students to fulfill these requirements during the Summer quarter.

Single Subject Credential Program

There are currently four program variants within the Single Subject Credential Program:

- Single Subject Credential Program with Cross-cultural, Language, and Academic Development (CLAD) Emphasis
- Individualized Single Subject Credential Program
- Partial Single Subject Credential Program
- School Districts/Cal State Hayward Partnerships Single Subject Credential Programs

I. Types of Single Subject Credential Programs

A. *The Single Subject Credential Program with Cross-Cultural, Language, and Academic Development (CLAD) Emphasis*

This emphasis is a four-quarter team program - Summer, Fall, Winter, and Spring. Usually, two teams begin in the Summer quarter, one on the Hayward campus and one on the Contra Costa campus. Classes are during the late afternoon and evening. Although Cal State Hayward Summer quarter classes start in late June, classes for the Single Subject Credential Program start at the end of July, thereby giving candidates time to either complete any outstanding prerequisites or take courses for the California Professional Clear Credential and/or CLAD certification scheduled in the first five weeks of the Summer quarter. The CLAD Emphasis requires the following additional requirements beyond the "basic" Single Subject credential: (1) nine quarter units (or six semester units) of a foreign language; (2) T ED 5038 Multicultural Education, 4 units; and (3) T ED 5370 Second Language Acquisition, 3 units.

Single Subject Credential candidates either student teach or have contracted, paid, full or part-time (.5) teaching positions, in their subject areas, in K-12 schools. All Single Subject candidates must teach: (1) two different grade levels, K-8, or 9-12 in their subject areas; (2) one quarter in a multicultural setting; and (3) if employed in a private school, one quarter in a public school. Because contracted, paid Single Subject candidates cannot leave their teaching positions to teach in a different grade level, multicultural setting, or public school, student teaching is also available during the first half of the Summer quarter.

B. *The Individualized Single Subject Credential Program*

This program is offered to approved candidates who have taken some credential courses in the past (Cal State Hayward and elsewhere), but need to finish all the requirements for a California Professional Clear Credential. Candidates can enter any quarter. Classes are taken with the Single Subject team. Candidates may student teach or have contracted, paid, full or part-time (.5), K-12 teaching positions in their subject areas. If a CLAD certification is desired, candidates must complete the CLAD courses (7 quarter units plus 9 quarter units of a foreign language).

C. *The Partial Single Subject Credential Program*

This program is offered to approved candidates who hold an out-of-state credential and a California Preliminary Credential, and who must complete course work for a California Professional Clear Credential. Candidates' previous work is evaluated by the Credentials Office and requirements for the Professional Clear Credential are identified. Candidates can enter any quarter. Classes are taken with the Single Subject team. Candidates do not have to apply to the university, but can take courses through the Open University option. If CLAD certification is desired, candidates must complete the CLAD courses (7 quarter units plus 9 quarter units of a foreign language).

D. *The School Districts/Cal State Hayward Partnerships Single Subject Credential Programs*

These programs are four-quarter team programs - Summer, Fall, Winter, and Spring, and adhere to all the requirements of the Single Subject Credential Program, including prerequisites. The partnership programs are joint ventures between Cal State Hayward and chosen school districts. Selected candidates are interns in the districts and generally have on-site classes. Classes are conducted by Cal State Hayward faculty and school district teachers and administrators. Classes are during the late afternoon. Although Cal State Hayward Summer quarter classes start in late June, classes in the Partnership Programs start at the end of July, thereby giving candidates time to either complete any outstanding prerequisites or take courses for the California Professional Clear Credential and/or CLAD Certificate scheduled in the first five weeks of the Summer quarter. If CLAD Certification is desired, candidates must complete the CLAD courses (7 quarter units plus 9 quarter units of a foreign language).

II. Curricular Requirements (50 units)

Single Subject Credential applicants take the following courses on either the Hayward or Contra Costa campus:

T ED 5301 Psychological Foundations in Middle and Secondary School Education (4)

T ED 5303 Classroom Management in the Secondary School (2)

T ED 5305 Social/Cultural Influences (3)

T ED 5310 Principles of Education (3)

T ED 5315 Professional Responsibilities (2)

T ED 5316 Planning, Development, and Evaluation of Instruction (3)

T ED 5317 Single Subject Specialty Methods (3)

T ED 5320 Teaching Reading in the Content Areas (3)

T ED 5326 Language and Literacy (2)

T ED 5329 Single Subject Field Experience (2)

T ED 5330 Student Teaching A (if not taken in summer) (4)

T ED 5331 Student Teaching B (6)

T ED 5332 Student Teaching C (13)

▪ *State Requirements*

The State requires that all Single Subject candidates: (1) have two different grade level placements, K-8 and 9-12, in their subject areas; (2) teach in a multicultural setting for one quarter; (3) if employed in a private school, be placed in a public school for one quarter; and (4) if employed in a special education setting, be placed in a "normal" setting for two quarters. It may be necessary for some students to fulfill these requirements during the Summer quarter.

M.S. IN EDUCATION

Admission

Upon admission to the university, a student with a baccalaureate degree usually is in "Unclassified Post-baccalaureate" standing. An "Unclassified Post-baccalaureate" student may enroll in those courses for which the prerequisites have been met. The department will not count courses taken to remove deficiencies toward degree requirements. No more than 13 units taken in "Unclassified Postbaccalaureate" status can be applied toward a master's degree. This includes approved credit-bearing extension courses, transfer courses, and residence courses taken before admission to the master's degree program. Lower division, non-credit Extension, and Credit/No Credit (Pass/Fail) courses are not applicable to the degree except courses offered only for Credit/No Credit (Pass/Fail). Filing for a substitution for this last item is up to the student.

A student with minor deficiencies in the requirements below may be admitted to a program as a "Conditionally Classified Graduate" student.

To be awarded "Classified Graduate" standing, a student must:

1. have a GPA of 3.0 or better in all upper division work in the major and in all post-baccalaureate work;
2. hold a valid teaching credential and/or show evidence of successful classroom teaching experience as determined by the department. (May be waived for a student in the early childhood education or environmental education patterns within the Curriculum Option);
3. have met the University Writing Skills requirement.

Advancement to Candidacy

To be Advanced to Candidacy for the degree, a student must:

1. have met the University Writing Skills requirement;
2. be a "Classified Graduate" student in good standing;
3. Have completed at least 35 quarter units considered by the Department to be applicable toward the degree requirements with a GPA of 3.0 or better;
4. have an approved program of study for the degree (on a Major Check Form) signed by the advisor;
5. have completed or be currently enrolled in T ED 6020, Research in Education;
6. have been approved for Advancement to Candidacy by the department on recommendation of faculty teaching in the student's area of study. This is initiated by filing the form, Petition to Establish Thesis/Project Committee, with a thesis or project abstract attached, or by obtaining permission to register for the Graduate Synthesis course.

GPA Requirement

A student must maintain a GPA of 3.0 or higher in all courses taken in the approved program signed by the advisor, whether the courses are taken at Cal State Hayward or elsewhere. A student whose GPA falls below 3.0 will be placed on probationary status, will be subject to disqualification from the program, and may be recommended for dismissal from the university. (The department also requires that the use of the "CR/NC" grade option in any course applied to a

master's and/or certificate program must be approved *in advance* by the Graduate Coordinator.)

Degree Requirements (45 units)

To receive the M.S. degree in Education, a student must have:

1. been Advanced to Candidacy;
2. completed 45 quarter units of approved graduate work, subject to the following conditions:
 - a. all units must have been earned within the past five (5) years immediately preceding completion of the requirements for the degree;
 - b. no fewer than thirty-two (32) quarter units may have been completed in residence (i.e., after admission to the program, as a regularly matriculated student) in the graduate program at Cal State Hayward;
 - c. no fewer than three (3) nor more than six (6) quarter units may have been assigned to a University Thesis nor more than five (5) to a Department Thesis or Project, nor fewer than four (4) in the Graduate Synthesis course;
 - d. no more than thirteen (13) quarter units of approved courses may be transferred from another institution, taken through approved extension courses (including Open University), or taken as an "Unclassified Post-baccalaureate" student;
 - e. at least twenty-two and one-half (22.5) quarter units must have been in courses in the 6000 series or equivalent graduate level;
3. satisfied the University Writing Skills requirement;
4. earned at least a 3.0 GPA in all post-baccalaureate work and in all graduate work at Cal State Hayward and in all units satisfying the requirements of the degree program;
5. completed a University Thesis acceptable to the university, or a Department Thesis or Project acceptable to the department faculty, or completed the Graduate Synthesis course which includes passing a Comprehensive Examination;
6. met, within five (5) years of admission to the program, the specific requirements of that program.

Graduation

A student must apply to graduate and request a degree check during the first two (2) weeks of the quarter prior to the quarter in which completion of the program is expected. This is done in the department office.

M.S. in Education, Option in Curriculum (45 units)

The Curriculum Option is designed to provide advanced special preparation or competencies for teachers and other educational professionals at all grade levels. The Curriculum Option is based on a core of four courses, including a thesis, project or graduate synthesis (comprehensive examination) course, with the remainder of the program containing specific required courses and electives. A candidate may choose one of the seven specialized patterns offered in the Curriculum Option:

I. Curriculum Option Specialized Patterns

- *Children's literature and reading* -- a program designed to complement the literature-based reading program sponsored by the California State Department of Education and based upon skills and knowledge related to the California Reading Initiative, English/Language Arts Framework, Recommended Readings in Literature, Model Curriculum Standards, and the Handbook for Planning an Effective Literature Program. A California teaching credential is required.
- *Early childhood education* -- a program designed for early childhood education professionals. Courses are

designed to provide a balance between theory and practice. Emphasis is placed upon preparing students to take a leadership role in the field.

- *Environmental education* -- a program designed for teachers and other education professionals who wish to infuse environmental concepts into their curriculum or for specializing their teaching assignments.
- *Mathematics education* -- a program designed for teachers who are interested in improving or updating their skills in mathematics instruction, as well as those who may wish to assume leadership roles in their districts. A California teaching credential is required.
- *Multicultural education* -- an in-depth study and analysis of the relationship among learners' academic performances, personal and group attributes (background experience, culture, gender, social class, and physical and intellectual presence), teacher perceptions, instructional approaches, curriculum content, and the social context of classroom learning. A California teaching credential is required.
- *Science/health education* -- a program designed for teachers to develop and strengthen skills and understanding in the teaching of science and/or health and to integrate science/health across the curriculum. A California teaching credential is required.
- *Individualized program* -- a program designed for teachers and other education professionals who, in consultation with the Graduate Coordinator, wish to develop an individualized program of electives appropriate to their professional goal(s). Often students elect to take courses from two of the other patterns, looking for breadth rather than depth in a single area.

II. Curricular Requirements

The Curriculum Option for the M.S. degree in Education requires completion of:

- a core of foundation courses,
- approved elective courses, which may be from a pattern or combination of two patterns.

A. Required Courses (15-18 units):

T ED 6020 Research in Education (4)
T ED 6300 Foundations of Curriculum Development (4)
T ED 6700 Advanced Educational Psychology (4)

Select one (1) of the following courses (3-6 units):

T ED 6899 Project (3-5)
T ED 6901 Graduate Synthesis (4)
T ED 6909 Departmental Thesis (3-5)
T ED 6910 University Thesis (3-6)

B. Elective Courses (27-30 units)

Select one of the following seven patterns with the approval of an advisor:

1. *Children's literature and reading*

Literature courses (12-18 units):

ENGL 4720 Mythology (4)
ENGL 4740 History of Children's Literature (4)
T ED 5240 Children's Literature in Elementary Education (3)
T ED 5241 Literature for Adolescents (3)
T ED 5242 Teaching Multicultural Literature to Children (4)
T ED 6245 Literature for the Young Child (4)
T ED 6246 Critical Analysis of Children's Literature (3)

Reading courses (10-11 units):

T ED 6230 Reading and Language Arts Instruction in the Elementary School (4)
T ED 6231 Diagnosis of Reading Problems: Emphasis Elementary School (4)

T ED 6232 Correction of Reading Difficulties in Elementary Schools (3)
T ED 6240 Reading and Study in Secondary Schools (3)
Other electives selected with an advisor (0-8 units)

2. *Early childhood education*

Complete the following courses (14 units):

T ED 5021 Child Growth and Development (3)
T ED 6160 Language and Cognitive Development (4)
T ED 6169 Home, School and Community Relations (4)
T ED 6186 Research Seminar in Early Childhood Education (3)
Other electives selected with advisor (13-16 units)

3. *Environmental education*

Complete the following courses (12-20 units)

T ED 5413 Environmental Education in the Curriculum (4)
T ED 5414 Field Trips and Community Resources for Environmental Education (4)
T ED 6414 Organization of Resident Outdoor Education (4)
T ED 6416 Development of Environmental Education (4)
T ED 6417 Field Study in Environmental Education (4)
Other electives selected with advisor (7-18)

4. *Mathematics education*

Complete the following courses (17-20 units):

T ED 6010 Seminar in Teaching and Learning Mathematics (4)
T ED 6021 Seminar in Diagnosis and Treatment of Learning Difficulties in Mathematics (4)
T ED 6030 Seminar in Teaching Problem Solving and Critical Thinking in Mathematics (4)
T ED 6040 Advanced Curriculum and Instruction in Mathematics (4)
T ED 6900 Independent Study (1-4)
Select additional mathematics courses with advisor (7-13 units)
Other electives selected with advisor (0-6 units)

5. *Multicultural education*

Complete the following courses (18 units)

T ED 6124 Advanced Multicultural Education (4)
T ED 5038 Multicultural Education (4)
SPCH 4830 Intercultural Communication (3)
T ED 5370 Second Language Acquisition (3)
T ED 6900 Independent Study - Special Issues in Multicultural Education (4)
Other electives selected with advisor (9-12 units)

6. *Science/health education*

Complete the following courses (7-10 units)

T ED 6050 Seminar in Science Education (4)
T ED 6440 Topics Seminar in Science/Health Education (3) (T ED 6440 may be repeated once for credit.)
Select additional science courses with advisor (8-20 units)
Other electives selected with the advisor (0-15 units)

7. *Individualized program*

A student may, in consultation with the Graduate Coordinator, develop an individualized program of electives appropriate to the student's professional goal(s). The student must meet all other requirements and standards for the Curriculum Option. Students are allowed to take courses from no more than two of the other patterns, looking for breadth rather than depth in a single area.

M.S. in Education, Option in Reading Instruction (45 units)

The Reading Instruction Option is tailored to upgrade the teaching of reading at all grade levels and is open to teachers of regular classrooms, special education classrooms, special reading classes, basic adult education classes, and community college reading instructors. The Reading Instruction Option is based on a core of four courses, including a thesis, project, or graduate synthesis (comprehensive examination) course, with the remainder of the program containing specific required courses and electives. The Reading Instruction Option may be earned in conjunction with the Reading Specialist Credential by combining courses from the Reading Instruction Option and the Reading Specialist Credential (52-58 total quarter units).

The Option in Reading Instruction is tailored to upgrade the teaching of reading/language arts at all grade levels and is open to teachers in regular classrooms, reading specialists, special education teachers, adult basic education teachers, and community college instructors.

Prior to completion of the program, a student must present evidence of two years of successful teaching experience, as defined by the department. Check with the advisor.

Required Courses

Complete the following core courses (30 units)

T ED 6020 Research in Education (4)

T ED 6230 Reading/Language Arts in the Elementary School (4)

T ED 6231 Diagnosis of Reading Problems: Emphasis Elementary School (4)

T ED 6232 Correction of Reading Difficulties in Elementary Schools (3)

T ED 6233 Laboratory Practice in Correction of Reading Difficulties (6)

T ED 6234 Clinical Seminar in Reading (3)

T ED 6240 Reading and Study in Secondary Schools (3)

T ED 6250 Seminar in Reading Research (3)

Select one course in Children's Literature (3-4 units)

T ED 5240 Children's Literature in Elementary Education (3)

T ED 5241 Literature for Adolescents (3)

T ED 5242 Teaching Multicultural Literature to Children (4)

T ED 6245 Literature for the Young Child (4)

Select one of the following courses (1-6 units):

T ED 6899 Project (2-5)

T ED 6901 Graduate Synthesis (4)

T ED 6909 Departmental Thesis (2-5)

T ED 6910 University Thesis (1-6)

Electives selected with advisor (5-11)

Reading Specialist Credential Program (45 units)

The Reading Specialist Credential is a competency-based program providing special training for teachers to become K-6, 7-12, or K-12 reading specialists or coordinators. A Reading Specialist Credential may be earned separately or in conjunction with a Master of Science in Education with the option in Reading Instruction. A California teaching credential is required.

The aim of the Reading Specialist Credential program is to develop the knowledge and skills of the classroom teacher, reading specialist, special education teacher, adult basic education teacher, and community college instructor.

The Reading Specialist Credential program is a competency-based program. Both entry and exit evaluations are made

of each student's demonstration of the competencies. A student, after conferring with the advisor, is informed in writing of the specific objectives s/he must meet in order to be recommended for the Reading Specialist Credential.

I. Required Courses (37-38 units)

Complete the following courses (22 units):

- T ED 6230 Reading and Language Arts Instruction in the Elementary School (3)
- T ED 6231 Diagnosis of Reading Problems: Emphasis Elementary School (4)
- T ED 6232 Correction of Reading Difficulties in Elementary Schools (3)
- T ED 6234 Clinical Seminar in Reading (3)
- T ED 6240 Reading in the Content Areas (3)

Select one (1) course in Children's Literature from the following courses (3-4 units):

- T ED 5240 Children's Literature in Elementary Education (3)
- T ED 5241 Literature for Adolescents (3)
- T ED 5242 Teaching Multicultural Literature to Children (4)
- T ED 6245 Literature for the Young Child (4)

Supervised professional field work (9 units):

(Student must apply for all fieldwork during the quarter prior to taking the course.)

- T ED 6233 Laboratory Practice in Correction Reading Difficulties (6)
- T ED 6251 Field Experience in Reading Instruction (3)

Select two courses from the following (6 units):

- T ED 6252 Leadership in Reading (3)
- T ED 6253 Teaching Reading Comprehension (3)
- T ED 6254 Issues in Reading Education (3)

Select one course from the following (3 units):

- T ED 6210 Nature and Theory of the Reading Process (3)
- T ED 6220 Ethnic and Linguistic Factors in Reading (3)

II. Electives (7-8 units)

Reading Specialist Credential and M.S., Option in Reading Instruction (53-58 units)

When the Reading Specialist Credential program and the Option in Reading Instruction for the Master of Science Degree in Education are taken concurrently, the following additional courses must be completed (8-13 units):

Complete the following courses (7 units)

- T ED 6020 Research in Education (4)
- T ED 6250 Seminar in Reading Research (3)

Select one of the following courses (1-6 units)

- T ED 6909 Departmental Thesis (2-5)
- T ED 6910 University Thesis (1-6)
- T ED 6899 Project (2-5)
- T ED 6901 Graduate Synthesis (4)

CERTIFICATE PROGRAMS

Children's Literature (17-18 units)

The Certificate Program in Children's Literature is designed to assist teachers in developing their knowledge and skills in children's literature. This program addresses the initiative of the English/Language Arts Framework, published in 1987, by the California State Department of Education and features "a literature-based program that encourages reading and exposes all students, including those whose primary language is not English, to significant literary works."

I. Required Courses (14 units)

Complete the following courses

- ENGL 4740 History of Children's Literature (4)
- T ED 5240 Children's Literature in Elementary Education (3)
- T ED 5242 Teaching Multicultural Literature to Children (4)
- T ED 6246 Critical Analysis of Children's Literature (3)

II. Elective (3-4 units)

Select one from the following courses (3-4 units):

- ENGL 4720 Mythology (4)
- T ED 5241 Literature for Adolescents (3)
- T ED 6245 Literature for the Young Child (4)
- Alternative course with advisor's approval

Cross-cultural, Language, and Academic Development (18-19 units)

This certificate program is a sequence of courses designed to expand the teaching skills of a trained, credentialed teacher in the English instruction of non-English or limited-English speaking students. The certificate is not a teaching credential; it supplements the teaching credential by adding the CLAD emphasis. Advisement regarding foreign language requirement and course equivalencies is provided by the Graduate Coordinator.

The CLAD certificate will help a teacher develop first and second language acquisition, methods and techniques for teaching a second-language and content areas through ESL strategies, appropriate materials for second language learners, ESL lesson plans to be implemented in classroom settings, and hands-on teaching ideas and materials.

Prerequisites: Foreign Language (minimum of nine college-level quarter units in a single language)

I. Required Courses (15 units)

Complete the following courses:

- T ED 5038 Multicultural Education (4)
- T ED 5610 Methods of Teaching English as a Second Language (4)
- T ED 5612 Teaching Strategies I: SDAIE and Practicum (4)
- T Ed 5370 Second Language Acquisition (3)

II. Elective (3-4 units)

Select one course with consent of the advisor:

- ENGL 3005 Study of Language (4), 3010 Modern English Grammar (4), 3015 Introduction to Phonology (4), 3040 Linguistic History of the English Language (4), 4060 Topics in the Study of the English Language (4); T ED 5613 ESL Teaching Strategies II: Reading, Writing and Testing (3), 6220 Ethnic and Linguistic Factors in Reading Instruction (3)

GRADING PRACTICES and DISQUALIFICATION

Special Grading Practices

The university has two post-baccalaureate grading patterns: "A," "B," "C," "D," "F" (including + and - except for "A+" and "D-"); and CR/NC (Credit/No credit). In the Department of Teacher Education the CR/NC boundary is based on

the graduate standards: a "CR" grade indicates work at the "B-" or higher level and an "NC" indicates work at the "C+" or lower level. Under University policy, a graduate student is graded on the "A-F" system, excepting field supervision courses in the professional preparation programs which are only graded as CR/NC.

Disqualification

If a credential candidate earns a grade of "D" or "F" in a required credential course, the course must be repeated (within the department) and a "C-" grade or higher must be earned. A candidate who failed to maintain a cumulative GPA of 3.0 in any quarter will be notified that (s)he will be disqualified effective at the end of the subsequent quarter if the cumulative GPA then is not above 3.0.

A student who fails to demonstrate a high level of performance in the skills of writing, speaking, and language use is subject to re-evaluation and possible disqualification.

The behavior of teacher candidates is expected to be ethical and professional, both on campus and in the public schools. Unethical or unprofessional behavior constitutes grounds for disqualification.

Academic Dishonesty

The university, like all communities, functions best when its members treat each other with honesty, fairness, respect and trust. Deception for individual gain is an offense against the members of the entire community. It is the student teacher's responsibility to be informed of university regulations by reading the section on academic dishonesty, "How does Cal State Hayward define and handle academic dishonesty" in the Grading and Academic Standards chapter. Awarding a failing grade in the event of academic dishonesty is at the discretion of the faculty member.

The Department of Teacher Education adheres to all university rules regarding academic dishonesty and feels a particular responsibility to require the utmost professional accountability and academic honesty from students in our teaching programs. Academic dishonesty matters within the Department of Teacher Education will be brought up to the Student Affairs Committee in the presence of the department chair, the professor involved, and the student's team leader. Decisions regarding a specific course of action will be collectively decided.

COURSES

For remedial and undergraduate course descriptions, see [Teacher Education in the undergraduate section](#) of this catalog.

Post-baccalaureate

5002 Teaching Health Education (2)

Covers State of California requirements in content and methods of health education for grades K-12. (A)

5021 Child Growth and Development (3)

Growth and development of the child: prenatal through childhood with special attention to the intellectual, social, and personality development in childhood. Influence of the home and school environment. (Y)

5038 Multicultural Education (4)

Implications for schools of community ethnic differences and demands; analyses of group culture patterns and value orientations; research findings in intergroup education; newer teaching approaches, materials, learning experiences and curriculum developments; program-planning for classrooms, schools and districts. (Y)

5099 Classroom Computer Technologies (4)

The production, evaluation and utilization of technologies (especially emerging technologies) in education settings. Basics of various computer-based applications: word processing, desktop publishing, spreadsheets, databases, graphics, and telecommunications. Applications for these tools across disciplines. Commercially-available educational software

examined for classroom effectiveness. Laser technologies (videodisk/CD-ROM) demonstrated. Prerequisites: California preliminary credential, clear or out-of-state credential, or admission to a credential program; proficiency in basic computer operations and word processing; and consent of instructor. (A)

5180 Play and Learning in the Education of the Young Child (4)

Play in the learning process of young children in Early Childhood Education. Emphasis on research evidence regarding play and development. Observation of young children. Creative approaches to managing play development. Four hrs. lect./disc. (Y)

5240 Children's Literature in Elementary Education (3)

A survey of children's literature including classics, picture books, myths, folktales, legends, biography, poetry, historical fiction and novels. Emphasis is placed on criteria for selection of good literature and teaching techniques. Prerequisite: consent of instructor. (Y)

5241 Literature for Adolescents (3)

Examination of the values to be found in folktales, classical myths and legends, as well as the body of contemporary writing, especially created to satisfy interests and needs of adolescents. (Y)

5242 Teaching Multicultural Literature to Children (4)

Analysis and selection of books focuses on multicultural populations that present accurate and positive depictions. Emphasis on the integration and use of these books in the classroom.

5300 Series: Professional Education Program Elements

The 5300 courses are elements in the professional preparation program for Multiple Subject and Single Subject Teaching Credentials. Admission into the professional preparation programs of the Department of Teacher Education is required for each course in the series. The elements are taken in a set sequence. The sequence may differ among the variant programs. Each element is based upon the achievement of a specified set of professional teaching competencies. The elements include regular coursework or field work, individual or group study, and the demonstration of the competencies. Student counseling and screening is involved in each element. See the Department of Teacher Education for further information and exceptions.

5301 Psychological Foundations in Middle and Secondary School Education (4)

Systematic analysis of teaching and learning using psychological theory and research. Emphasis on social and cognitive development, learning processes, motivation, evaluation, and appropriate teaching principles for working with students with varying cultural and linguistic backgrounds, ages, and motivation levels. (Y)

5303 Classroom Management in the Secondary School (2)

Management approaches emphasizing those promoting positive learning environments which meet the developmental needs of students from varying cultural, linguistic, racial, and economic backgrounds. Legal issues which impact upon classroom management. Restricted to students in the Single Subject Credential Program.

5305 Social/Cultural Influences (3)

Identify social influences on and cultural differences which affect teaching and learning. Develop teaching methods which provide for these factors. (Y)

5310 Principles of Education (3)

Methods of providing for individual learning differences and for integrating content in learning activities at different grade levels. Ways of organizing classroom for instruction. (Y)

5315 Professional Responsibilities (2)

Capstone course to promote independent thinking, professional integrity a vision for school learning, and commitment to working collaboratively with colleagues to improve school practices. Preservice teachers synthesize the relationship between course content in the credential program and its application in the student teaching experience.

5316 Planning, Development, and Evaluation of Instruction (3)

Planning for instruction in secondary schools. Selection of materials and teaching techniques with attention to use of subject matter. Designing daily and long range teaching plans. (F)

5317 Single Subject Specialty Methods (3)

Specific methods for teaching art, English, foreign languages, mathematics, music, physical education, science, and social studies in secondary school classrooms. Restricted to students in the Single Subject credential program.

Prerequisite: T ED 5316.

5320 Teaching Reading in the Content Areas (3)

Understanding the reading process theory and its application in content classes. Developing specific methods and materials for improving communication skills in the content class. (W)

5326 Language and Literacy (2)

Development of communication skills in the Single Subject content areas. Incorporating applications in ESL and sheltered English in the Single Subject classrooms. Methods, materials and approaches for diagnosis and instruction. (W, Sp)

5329 Single Subject Field Experience (2)

Field experience to include the observation and limited participation in the opening of schools in secondary classrooms. Restricted to candidates in the Single Subject Credential Program. CR/NC grading only.

5330 Student Teaching A (4)

Emphasis on planning for and managing instruction. Student teaching under supervision of classroom teacher. CR/NC grading only. (A)

5331 Student Teaching B (6)

Emphasis on instruction in Single Subject specialization area. Student teaching with university supervision. CR/NC grading only.

5332 Student Teaching C (13)

Emphasis on instruction in Single Subject specialization area. Student teaching with university supervision. CR/NC grading only.

5350 Curriculum and Instruction: Mathematics in the Elementary School (3)

Theory, content and methods of teaching mathematics in the elementary classroom. Emphasis on the number systems, operations, problem solving, assessment, computer assisted instruction, resource materials, Specially-Designed Academic Instruction in English (SDAIE), and Complex Instruction. Concurrent enrollment in student teaching required. Prerequisite: MATH 4021 and admission to credential program. (Y)

5351 Psychological Foundations of Education (3)

Systematic analysis of psychological viewpoints, stages of growth and development, learning processes, and evaluation. Emphasis upon developing a consistent teaching theory based upon psychology, age-level characteristics, race, ethnicity, and social-class differences. Prerequisite: admission to credential program. (Y)

5352 Curriculum and Instruction: Reading in the Elementary School -- A (3)

Theory, content, and methods for teaching reading in the elementary classroom. Emphasis upon basic approaches to reading, vocabulary, comprehension, emergency literacy, and phonics. Concurrent enrollment in student teaching required. Prerequisite: admission to credential program. (Y)

5353 Teaching Models (3)

Models for teaching lessons which meet the developmental needs of students from varying cultural, linguistic, racial, and socioeconomic backgrounds. Planning, conducting, and evaluating instruction using each model. Adjusting model to individual learning modes and cognitive levels. Concurrent enrollment in student teaching required. Prerequisite: admission to credential program. (Y)

5354 Student Teaching I (4)

Introductory student teaching. Individual, small group and total class lessons; focus on reading, mathematics, and fine arts. Scheduled group sessions with University Supervisor. Professional responsibilities of teachers. A/V, handwriting performance tests. Prerequisite: admission to credential program. CR/NC grading only. (Y)

5355 Sociological Foundations of Education (2)

Systematic analysis of the effect of culture, values, language, class, sex, ethnicity on children in the elementary classroom. Issues related to political control of education, philosophy and history, comparative education. Prerequisite: admission to credential program. (Y)

5356 Curriculum and Instruction: Reading in the Elementary School--B (2)

Group and individual methods for assessing reading problems; remediation techniques and materials. Examination and selection of appropriate assessment materials. Prerequisite: T ED 5352. (Y)

5357 Curriculum and Instruction: Teaching Science in Elementary School (3)

Models, methods, and materials of teaching science in elementary schools. Planning, implementing, and evaluating instruction. Focus on Specially-Designed Academic Instruction in English (SDAIE). Development of cognitive skills, scientific attitudes, and hands-on activities. Concurrent enrollment in student teaching required. Prerequisite: admission to credential program. (Y)

5359 Student Teaching II--Postgraduate Program (6)

Focuses on social studies and science. Responsibility for individual, small group, and total class lessons in reading, mathematics, and fine arts. Minimum of one week solo teaching. Scheduled group sessions with University Supervisor. Postgraduate program. Prerequisite: admission to credential program. CR/NC grading only. (Y)

5360 Curriculum and Instruction: Language Arts in the Elementary School (2)

Theory and methods of teaching language arts in elementary schools: emphasis upon listening, writing, spelling, oral expression, penmanship, and literature. Concurrent teaching experience required. Prerequisite: admission to credential program or teaching experience. (F, W, Sp)

5361 Student Teaching III -- Postgraduate Program (13)

Full-time student teaching. Students are expected to teach all subjects, including lesson involving computers. Minimum of two weeks solo teaching. Scheduled group sessions with University Supervisor. Postgraduate Program. Prerequisite: admission to credential program; experience with computers. CR/NC grading only. (Y)

5364 Classroom Management in the Elementary School (2)

Models for managing school classrooms which meet the developmental needs of students from varying cultural, linguistic, racial, and socioeconomic backgrounds. Concurrent enrollment in student teaching or concurrent teaching experience required. (Y)

5365 Curriculum and Instruction: Social Studies in the Elementary School (2)

Theory and methods of teaching social studies in elementary schools. Emphases on utilization of the state framework, community resources, and integration of the social studies with global education and multicultural content. Prerequisite: admission to the credential program. (Y)

5366 English as a Second Language (ESL) and Bilingual Methods (2)

Bilingual education, English language development (ELD), content-based English as a Second Language (ESL), and Specially-Designed Academic Instruction in English (SDAIE). Federal and state laws regarding education of language minority students. Concurrent enrollment in student teaching required. Prerequisite: admission to credential program. (Y)

5367 Bilingual Methods (3)

Theory and practice of first and second language acquisition, nature of bilingualism and bicognitive development. Bilingual teaching models and methodologies for language instruction in the child's first and second languages.

Teaching strategies for academic instruction in first and second languages. Psychohistorical experience of the Hispanic child (Y)

5370 Second Language Acquisition (3)

Systems of language, including phonology, morphology, syntax and semantics; theories and factors in children's first and second language acquisition and development. Psychological, sociocultural, and pedagogical factors which impact on first and second language acquisition in classrooms.

5371 Classroom Implications of the Culture of the Latino Child (3)

Focus on major historical experiences of various Latino groups in the United States (pre-Columbian period, the Conquest, colonial period, years of independence, contemporary U.S. life) and their implications for the classroom teacher. Emphasis on cultural commonalities, demographics, immigration, educational patterns, and general relationships among Latinos and the majority culture which influence teaching and learning. Taught in Spanish. Prerequisite: permission of department.

Other Post-baccalaureate Courses

5413 Environmental Education in the Curriculum (4)

Integration of environmental concepts into total school curriculum. Methods for outdoor teaching; development of individual and group projects using school grounds, nature areas, and parks as laboratories. Review of available curricula: pre-school, secondary, and adult education. (F)

5414 Field Trips and Community Resources for Environmental Education (4)

Organization of environmental educational field trips; identification and application of teaching resources available from agencies, organizations, and industry. May be repeated once for credit. (F)

5500 Developing Programs for Special Students in Regular Classrooms (4)

Developing individual education programs for students in the regular classroom with special needs. Inservice course designed to meet the knowledge and skill requirements of the State for special education training for classroom teachers. Prerequisites: California preliminary credential or permission of instructor. Field experience with handicapped students required. Cross-listed with [EPSY 5500](#). Three hrs. lect./disc., 2 hrs. act. (A)

5610 Methods and Materials for Teaching English as a Second Language and Bilingual Education (4)

Strategies for teaching language development to limited-English Speaking students. Review and evaluation of available ESL and bilingual materials reflecting current ESL and bilingual methodologies. ESL and bilingual program models and current research. Review theories of first and second language acquisition. Designed for teachers of LEP students. Prerequisite: consent of instructor. (Y)

5612 Teaching Strategies I: Specially Designed Academic Instruction in English (SDAIE) and Practicum (4)

Teaching strategies for developing English language proficiency and providing access to core curriculum at grade level in English. Student development of cognitive academic language proficiency in preparation for mainstream curriculum. (Y)

5613 ESL Teaching Strategies II: Reading, Writing and Testing in the ESL Classroom (4)

Teaching strategies for guiding limited-English proficient students to English literacy using various language experience approaches and guided composition. Testing and assess LEP student skills in listening, speaking, reading, and writing. (Y)

5900 Independent Study (1-4)

Graduate

6000 New Teacher Concerns: A Course for Beginning Teachers (4)

Critical analysis of issues facing new teachers, practices of experienced teachers, examination of the stages of teacher

development. Supports beginning teachers as they reflect upon classroom-centered problems. Prerequisite: Teaching Credential.

6010 Seminar in Teaching and Learning Mathematics (4)

Research and analysis of selected topics pertinent to Mathematics in the elementary school. Reports on current research, contemporary and experimental programs, and new materials. May be repeated for credit. Cross listed with MATH 6010. Prerequisite: consent of instructor. (Y)

6015 Using Research to Improve Learning (4)

Analysis of research findings which focus on issues, problems and interests, related to learning. Development of recommendations for improved learning in specified classes, schools, and/or districts. (Y)

6020 Research in Education (4)

Seminar in methods and procedures of research tools in education; sources and uses of data. Critical analysis of published research; preparation of a research project to include references, rationale, and outline. T ED 5100 and course in statistics recommended. (A)

6021 Seminar in Diagnosis and Treatment of Learning Difficulties in Mathematics (4)

Causes and effects of mathematics learning disabilities. Methods and instruments useful in diagnosis and treatment. Evaluation of materials for the correction of mathematical learning problems. Cross-listed with MATH 6021. Prerequisite: consent of instructor. (Y)

6030 Seminar on Problem Solving and Critical Thinking in Mathematics (4)

Psychological and pedagogical aspects of problem solving and critical thinking in mathematics. Curriculum and teaching models with emphasis on classroom instruction. (Y)

6040 Advanced Curriculum and Instruction in Mathematics (4)

Historical and philosophical study of curriculum trends, modern curricular developments including use of newer instructional media, individualization of instruction, school computer usage, and evaluation techniques. Cross-listed with MATH 6040. (Y)

6050 Seminar in Science and Health Education (4)

Review of recent research concerning science and health education in grades K-14. Thinking of leading science and health educators regarding purposes and programs needed in the near future. Planning for change processes in schools. Prerequisite: consent of instructor. (Y)

6097 Principles of Instructional Design (4)

Knowledge and skills of effective design of instruction to meet needs of teachers, trainers, and software designers. Prerequisite: graduate standing in any department. Cross-listed with [MM 6097](#). (Y)

6098 Designing Effective Multimedia Instruction (4)

Effective design and development of multimedia material to promote optional interactivity, performance, and motivation. Evaluation of educational multimedia products, design and development of original software, and examination of research on electronic learning. Cross-listed with [MM 6098](#). Prerequisite: T ED 5099 or equivalent.

6099 Multimedia/Hypermedia (4)

The foundations, history and applications of hypermedia and multimedia. Terms, concepts, and effectiveness of hypermedia and its implementation in the classroom. Production and evaluation of hypermedia-based projects. Macintosh environment. Integration of multimedia using scanners, videodisks, and CD-ROMs. Cross-listed with [EDLD](#), [EPSY](#), [MM](#), and [P E 6099](#). Prerequisite: T ED 5099 or 5050 or 5060.

6124 Advanced Study in Multicultural Education (4)

Analysis of research on educational policies and practices regarding the development of ethnic identity; compensatory and cross-cultural education. Application to implementation of school programs. Prerequisites: T ED 5038 or consent of instructor.

6125 Foundations of Early Childhood Curriculum (4)

Meeting the special curricular needs of young children, including the social, fine arts and basic skills. (Y)

6160 Language and Cognitive Development in Early Childhood Education (4)

Current research on the development of language and cognition in young children; the relationships of environmental and biological forces; and implications for curriculum planning. Prerequisites: T ED 6700 and 5021. (Y)

6169 Home, School and Community Relationships (4)

Teacher roles in dealing with classroom aides, community agencies, and parents. (Y)

6180 Social and Psychomotor Development in Early Childhood Education (4)

Current research on the development of social and physical abilities in young children. Interaction of family, community, and program on the emerging self. Prerequisites: T ED 5021, 6700 (may be taken concurrently).

6210 The Nature and Theory of the Reading Process (3)

Sociological, psychological, physiological, and educational factors in reading process. Role of sensory organs and brain. Stages of growth in instruction. Cognitive development. Personality theories and learning. Prerequisites: graduate standing. (Y)

6220 Ethnic and Linguistic Factors in Reading Instruction (3)

Cultural differences, language habit patterns. Reading instruction criteria for linguistically different learners. Ethnic, socioeconomic, linguistic variables related to reaching achievement. Understanding structure of English language. Prerequisite: graduate standing. (Y)

6230 Reading and Language Arts Instruction in the Elementary School (4)

Strategies and materials for teaching reading and language arts in the elementary school; the integration of skills and skill instruction; and effective organization patterns. Prerequisites: teaching experience, a pre-service reading methods course, or permission of instructor. (Y)

6231 Diagnosis of Reading Problems: Emphasis Elementary School (4)

Administration, interpretation and application of individual and group tests for analysis of reading difficulties. Discussion and assessment of psychological and physical factors associated with reading disability. A portion of the course will deal with tests and analysis secondary school reading problems. Prerequisites: T ED 6230 and consent of instructor. (Y)

6232 Correction of Reading Difficulties in Elementary Schools (3)

Group, individual techniques, case studies, sample lessons, demonstrations of remedial methods. Construction, use, evaluation of materials for correction of reading difficulties. Prerequisites: T ED 6231 and consent of instructor. (Y)

6233 Laboratory Practice in Correction of Reading Difficulties (6)

Remedial instruction for children with reading difficulties. Daily practice tutoring children in clinical situation. Experience in individual tutoring, group remedial activities, parent interviews, case study, clinic reports. Elementary and Secondary sections. Prerequisites: T ED 6232 or T ED 6242 and consent of instructor. (Tent. Su)

6234 Clinical Seminar in Reading (3)

Relationship of applicable theory to reading disabilities. Intervention modes and assessment of practices. Individual problems and clinical reports. Prerequisites: T ED 6232 or 6242; consent of instructor. Concurrent enrollment in T ED 6233 required. (Tent. Su)

6240 Reading and Study in Secondary Schools (3)

Techniques, plans, materials, programs to improve reading and study skills of junior and senior high school students in all subject areas. Prerequisite: teaching experience. (Y)

6245 Literature for the Young Child (4)

Focuses upon literature of many genre for the teaching of children from three to eight years. Includes picture books, classics, personified machine heroes, realistic books and others. Includes enrichment ideas which teachers can use for young children. Prerequisite: T ED 5240. (Y)

6246 Critical Analysis of Children's Literature (3)

Critical analysis of literature intended for children. Study of various literary forms. Extensive readings on children's literature. Prerequisite: 14 units in children's literature. May be repeated for credit. (Y)

6250 Seminar in Reading Research (3)

Comprehensive review and evaluation of research and literature in the reading field; investigation of research topic; selection of problem, literature survey, interpretation and summaries of findings. Must be taken before T ED 6020. (Y)

6251 Field Experience in Reading Instruction (3)

Planned experiences in reading instruction at the school site. Individualized program. Supervision by university and school district personnel. Prerequisites: T ED 6233 and departmental approval. (F, W, Sp)

6252 Leadership in Reading (3)

Practical issues confronting school personnel with leadership responsibilities in reading. Effective programs and program change; staff development including classroom management; communicating with parents and public; legal impacts on reading programs; program assessment. Open to teachers, administrators, reading and learning disabilities specialists. Prerequisite: T ED 6230 or T ED 6240, or consent of instructor. (Y)

6253 Teaching Reading Comprehension (3)

The definition of reading comprehension, recent research, and basic assumptions about the comprehension process. "How to" strategies to enable students to understand what they read. The creation and development of classroom materials for classroom use. (Y)

6254 Selected Topics in Reading Education (3)

Issues in reading education. Topics vary to reflect current interests in the field. May be repeated for credit. Prerequisite: T ED 6230 or T ED 6240. (Y)

6300 Foundations of Curriculum Development (4)

Determinants of curricula in elementary and secondary schools. Effects of national goals, state legislation and community forces on curriculum development. Theories and patterns of curriculum organization. K-14 curriculum sequences. (F, W)

6414 Organization of Resident Outdoor Education (4)

Problems and solutions for implementation, e.g., site, staff, health, finance, permission. Preparation, program, and classroom follow-up. Prerequisite T ED 5413 or consent of instructor. (Y)

6416 Development of Environmental Education (4)

History, needs, conceptual framework, trends and types of programs in the United States and the world. Review of literature and dissertations and masters' theses. Prerequisites: T ED 5413, or consent of instructor. (Y)

6417 Field Study in Environmental Education (4)

Individual leadership experience in an environmental education program. Prerequisite: consent of instructor. (Y)

6440 Topics Seminar in Science and Health Education (3)

Topics vary as students analyze various curricular programs and materials for the teaching of science and/or health in grades K-12. May be repeated once for credit. Topics differ in each offering of this course. Prerequisites: graduate standing.

6700 Advanced Educational Psychology (4)

Systematic analysis of general principles of motivation and learning as applied to educational processes. Prerequisite: Upper division learning course. (W, Sp)

6898 Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. No units may be counted toward credential programs. CR/NC grading only. Prerequisites: at least 3.0 GPA; departmental approval of activity. (A)

6899 Project (2-5)

Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate standing. Maximum of 5 units per student. (A)

6900 Independent Study (1-4)**6901 Graduate Synthesis (4)**

Alternative to thesis/project. Review of graduate program experiences, examination of recent issues in education, plans for current and future professional development and implementation of action research and assessment in the educational setting of the candidate. Includes comprehensive examination. Prerequisites: completion of all other M.S. degree coursework.

6909 Departmental Thesis (2-5)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 5 units per student.

6910 University Thesis (1-6)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)

What's New: 1996-1998 Programs of Study

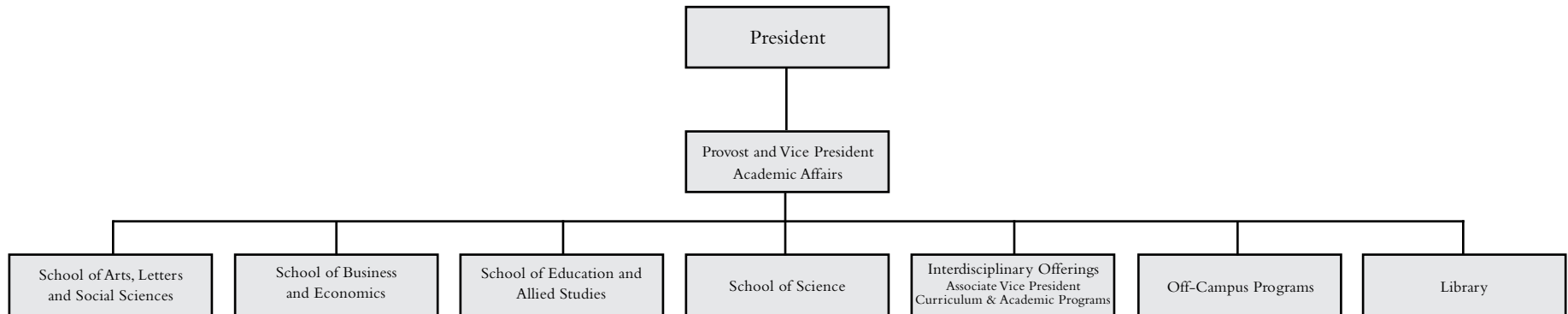
This page describes recent additions, modifications, and deletions within the **1996-1998 Programs of Study** section of the online catalog. (A [complete history of all changes](#) to this section is also available.) Refer to other sections for their lists of changes.

Recent Changes:

07/16/97 Updated Mission Statement for School of Business and Economics.

CALIFORNIA STATE UNIVERSITY, HAYWARD

Academic Organization



DEPARTMENTS

Anthropology
Art
Communicative Sciences & Disorders
Criminal Justice Administration
English
Ethnic Studies
Geography & Environmental Studies
History
Human Development
Mass Communication
Modern Languages & Literatures
Music
Philosophy
Political Science
Public Administration
Sociology & Social Services
Speech Communication
Theatre Arts & Dance

PROGRAMS

(Interdisciplinary Majors)
International Studies
Latin American Studies
Liberal Studies
Multimedia

PROGRAMS

(Interdisciplinary Minors)
Advertising
African American Studies
American Studies
Asian American Studies
Asian Studies
California Studies
Cognitive Science
Communication Skills
International Business
International Studies
Mexican American/Latino Studies
Native American Studies
Photography
Religious Studies
Urban Studies
Women's Studies

DEPARTMENTS

Accounting & Computer
Information Systems
Economics
Management & Finance
Marketing

PROGRAMS

(Interdisciplinary Minors)
Advertising
International Business

DEPARTMENTS

Educational Leadership
Educational Psychology
Kinesiology & Physical Education
Recreation & Community Services
Teacher Education

PROGRAM

(Interdisciplinary Minor)
Youth Services Administration

DEPARTMENTS

Biological Sciences
Chemistry
Geological Sciences
Mathematics & Computer Science
Nursing
Physics
Psychology
Statistics

PROGRAMS

(Interdisciplinary Major)
Physical Science

PROGRAM
(Interdisciplinary)
Special Major

CONTRA COSTA CAMPUS

UNIVERSITY EXTENSION

American Language Program
Extension Programs
Open University/Concurrent Enrollment

General Education Requirements

Area	Subarea	Minimum Courses	Minimum Units		General Requirements
			Subarea	Area	
A. Communication in English Language	A1 Oral Communication	1	4	12	<p>Complete as Lower Division Student</p> <p>1. Minimum of 12 upper division units taken as upper division student (<i>italicized at left</i>)</p> <p>2. Minimum of 12 units in residence.</p> <p>3. One course (minimum of 3 units) about cultural minorities and/or women in the U.S.A.</p> <p>4. No courses used for U.S. history/government at Cal State Hayward</p>
	A2 Written Communication	1	4		
	A3 Critical Thinking	1	4		
B. Natural Sciences and Mathematics	B1 Physical Science	1	4	16	
	B2 Life Science	1	4		
	B3 Laboratory Science	-	-		
	B4 Quantitative Reasoning	1	4		
	B5 Science Elective(s)	1	1-4		
C. Humanities: Fine Arts and Letters	C1 Fine Arts	1	4	16	
	C2 Letters	1	4		
	C3 Humanities Elective	1	1-4		
	<i>C4 U.D. Humanities Elect.</i>	<i>1</i>	<i>4</i>		
D. Social Sciences	Three Depts.	D1 Elective	1	4	16
		D2 Elective	1	4	
		D3 Elective	1	1-4	
	<i>D4 U.D. Elective</i>	<i>1</i>	<i>4</i>		
<i>E. Capstone</i>		<i>1</i>	<i>4</i>	4	
F. Performing Arts and Activities		1	4	4	
G. G.E. Electives		1	4	4	
TOTALS		18	72	No course with prefix of major department	

Note: Shaded areas (C4, D4, E) comprise the minimum three-course, 12-unit upper division General Education requirement; course and student must be upper division.

Note: No single course may be applied to more than one Area or Subarea requirement, except B3 (Laboratory Science) which must be taken as part of B1, B2, or B5.

Online University Catalog
California State University - Hayward
Last Update: 04/01/96

What's New: 1996-1998 Programs of Study

This page describes all additions, modifications, and deletions within the **1996-1998 Programs of Study** section of the online catalog. (A list of [recent changes](#) to this section is also available.) Refer to other sections for their lists of changes.

Complete History of All Changes:

07/16/97 Updated Mission Statement for School of Business and Economics.

11/18/96 Minor corrections throughout entire section.

05/30/96 Administrative update: minor corrections to various pages.

05/17/96 This section now officially online.

05/07/96 Administrative update: "Complete History of All Changes" added to the "What's New" page.

05/01/96 Administrative update: Enhanced images and buttons.

Content update: Degree requirements chapters now appear in this section and the 98-00 section, rather than in the general information section.

04/23/96 Content update: All graduate programs completed.

04/16/96 Content update: All undergrad programs completed.