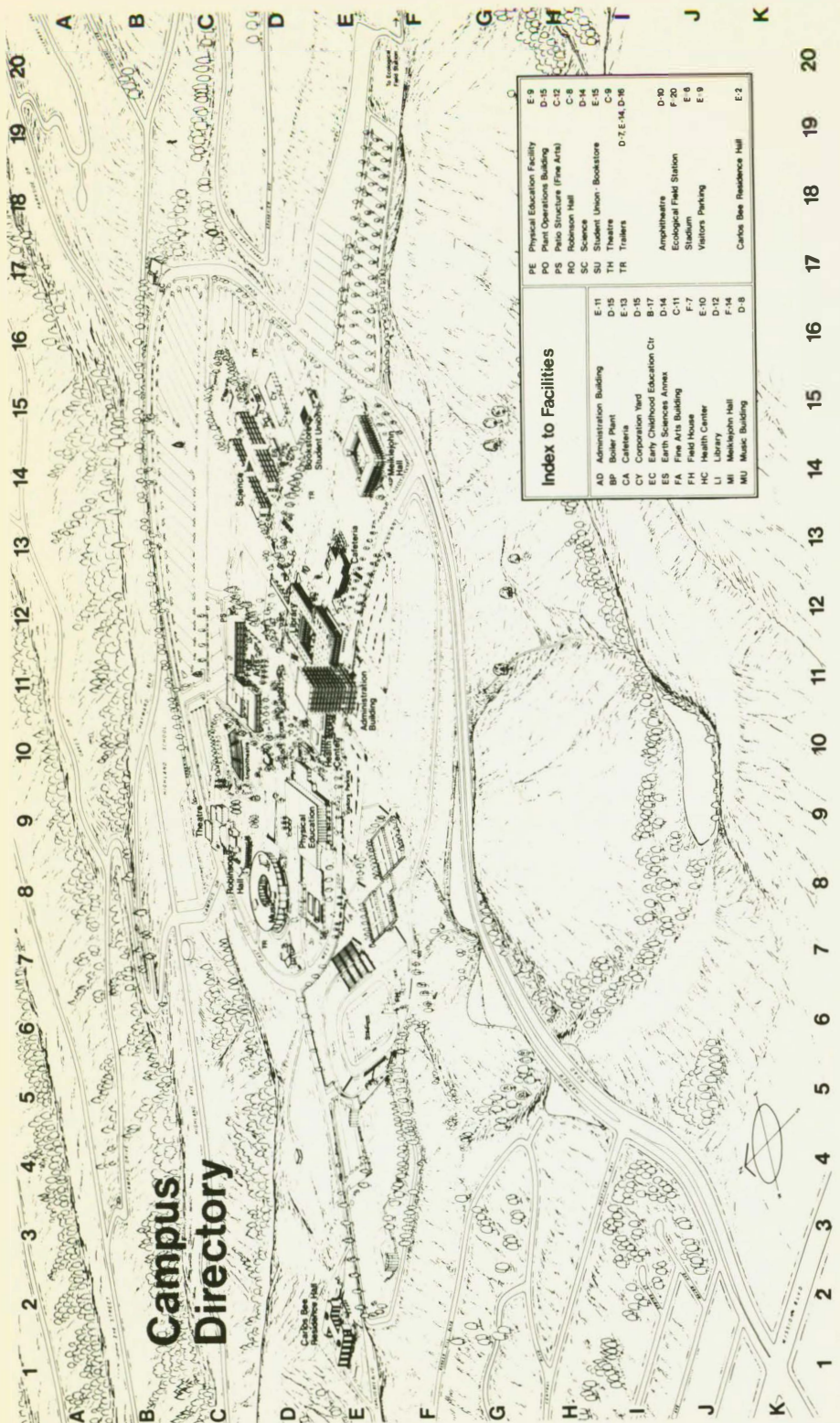


**California State
University, Hayward
78~79**

**The California
State University
and Colleges**



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CSUH

California State University · Hayward

University Catalog

1978-1979

The California State University and Colleges

CALIFORNIA STATE UNIVERSITY, HAYWARD

Hayward, California 94542

881-3000

EFFECTIVE DATES: FALL QUARTER, 1978
through SUMMER QUARTER, 1979

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The Board of Trustees of The California State University and Colleges, in Section 43800 of Title 5 of the *California Administrative Code*, has reserved the right to add, amend, or repeal any of its regulations, rules, resolutions, standing orders, and rules of procedure, in whole or in part, at such time as it may choose. None shall be construed, operate as, or have the effect of an abridgement or limitation of any rights, powers, or privileges of the Trustees. The Chancellor reserves the right to add, amend or repeal any of his Executive Orders, at such time as he may choose, and the President of California State University, Hayward reserves the right to add, amend, or repeal provisions of this catalog and rules of the University, including handbooks, at such time as he may choose. No Executive Order shall be construed, operate as, or have the effect of an abridgement or limitation of any rights, powers, or privileges of the Chancellor nor shall any catalog provision or rule of the University be construed, operate as, or have the effect of an abridgement or limitation of any rights, powers, or privileges of the President.

Every effort has been made to assure the accuracy of the information in this catalog. Students are advised, however, that such information is subject to change without notice. Therefore, they should consult the appropriate instructional departments, schools, or administrative offices for current information.

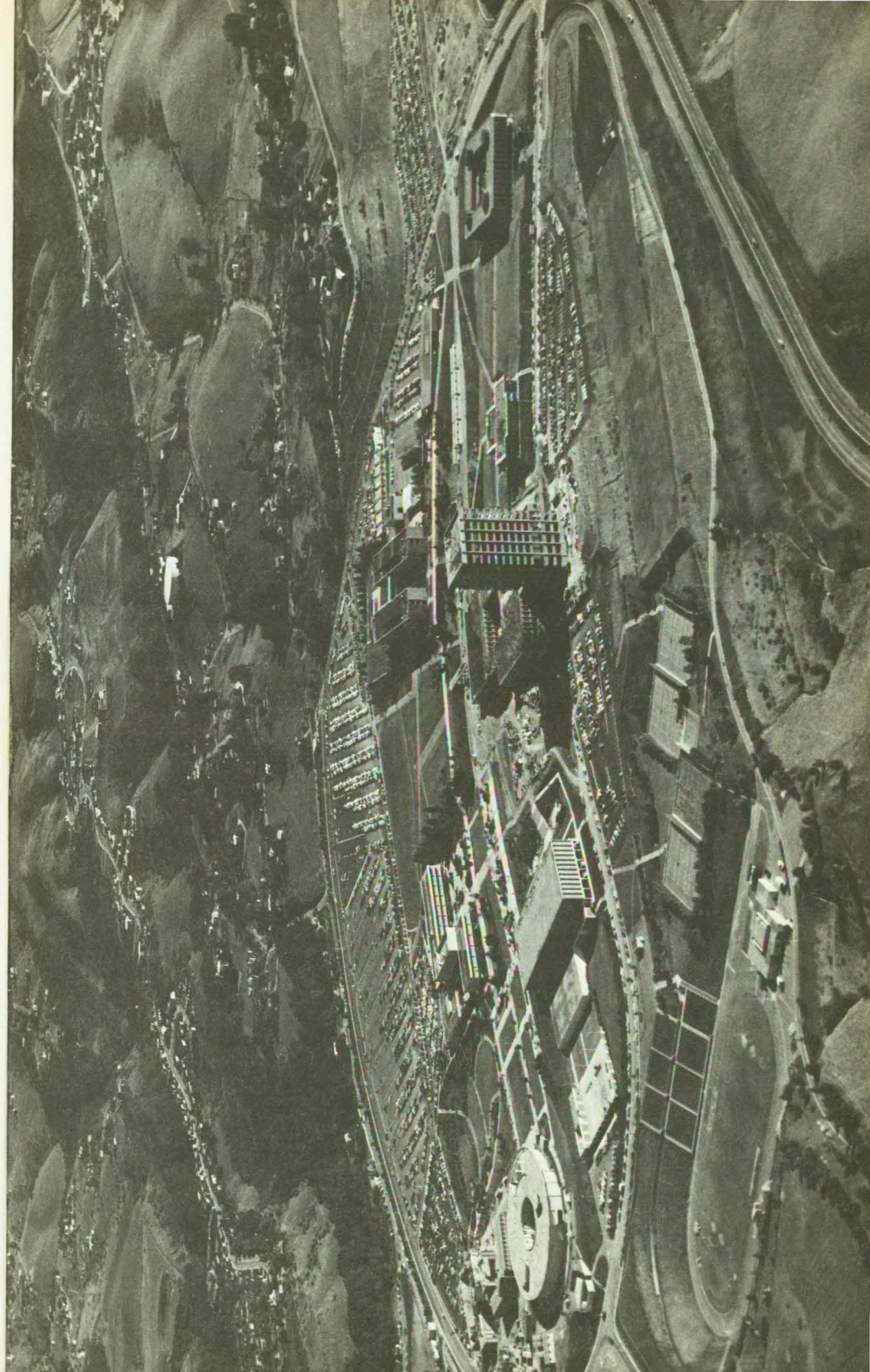


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COVER DESIGN: FLAVIO ROBLES, JR.

PHOTOGRAPHS: CAROL ISAACS

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ACADEMIC CALENDAR, 1978-1979

Fall Quarter 1978

Aug. 22-23	Early registration and payment of fees
Sept. 18	Opening of fall quarter
Sept. 19-20	Student advising, registration and payment of fees
Sept. 21	Classes begin
Sept. 21-28	Late registration period
Sept. 21-28	Add-Drop period
Sept. 29-Oct. 11	Late Add-Drop period
Nov. 17	Last day to submit theses to Graduate Studies Office
Nov. 23-24	Thanksgiving recess (University closed)
Dec. 1	Last day of classes
Dec. 4-8	Final examinations
Dec. 8	End of quarter
Dec. 9-Jan. 1	Academic recess

Winter Quarter 1979

Nov. 28-30	Early registration and payment of fees
Jan. 2	Registration and payment of fees
Jan. 3	Classes begin
Jan. 3-10	Late registration period
Jan. 3-10	Add-Drop period
Jan. 11-23	Late Add-Drop period
Feb. 23	Last day to submit theses to Graduate Studies Office
March 9	Last day of classes
March 12-16	Final examinations
March 16	End of quarter
March 17-25	Academic recess

Spring Quarter 1979

March 6-8	Early registration and payment of fees
March 26	Registration and payment of fees
March 27	Classes begin
March 27-April 3	Late registration period
March 27-April 3	Add-Drop period
April 4-16	Late Add-Drop period
May 18	Last day to submit theses to Graduate Studies Office
May 28	Memorial Day (University closed)
June 1	Last day of classes
June 4-8	Final examinations
June 9	Commencement
June 9	End of quarter
June 10-24	Academic recess

Summer Quarter 1979

May 30-31	Early registration and payment of fees
June 25	Registration and payment of fees
June 26	Classes begin
June 26-July 3	Late registration period
June 26-July 3	Add-Drop period
July 4	Independence Day Holiday (University closed)
July 5-17	Late Add-Drop period
Aug. 10	Last day to submit theses to Graduate Studies Office
Aug. 24	Last day of classes
Aug. 27-31	Final examinations
Aug. 31	End of quarter
Sept. 1-23	Academic recess

Summer Session 1979

June 18	Registration
June 18	Classes begin
June 20	Late registration; Last day to add classes in six-week courses
June 29	Last day to drop classes without record of enrollment *
July 4	Independence Day Observance (University closed)
July 6	Last day to drop a class
July 27	Last day of Summer Session six-week term
July 30	Grades due in Records Office for six-week courses

Extension students registering in Summer Quarter classes on Concurrent Enrollment must observe the following dates as well as other dates for the Summer Quarter, 1979:

June 25-29	Get permission from department to enroll; register and pay fees
July 2-13	Late registration with approval of instructor plus \$5 late fee

Orientation Calendar

Orientation activities are planned each quarter for new students, undergraduates and graduates, to introduce them to the university and its programs and assist them in program planning.

Fall Quarter 1978

Aug. 17-18	Early Freshman Orientation—Fall Quarter applicants who have applied and not been denied
Aug. 21	Early Transfer Orientation—Fall Quarter applicants who have applied and not been denied
Aug. 26	Parents' Day and Open House—New Students, their parents and guests
Sept. 9-10	Freshman Overnight—Freshman Students
Sept. 14	Regular Orientation—Fall Quarter applicants who have applied and not been denied (Day and Evening Program)
Sept. 18-20	Continuation of Orientation Activities for new students—Academic Prelude Workshops for all students
Sept. 22	Annual Cal State Beach Trip—All Students

(continued on next page)

* In workshops and other courses less than six weeks long, students may withdraw during the first two days without a grade mark; the last day to drop a course will be the mid-point of the course.

Winter Quarter 1979

Nov. 27	Early Orientation—New Winter Quarter applicants who have applied and not been denied
Dec. 28	Regular Orientation—Winter Quarter applicants who have applied and not been denied (Day and Evening Program)

Spring Quarter 1979

March 5	Early Orientation—Spring Quarter applicants who have applied and not been denied
March 22	Regular Orientation—Spring Quarter applicants who have applied and not been denied (Day and Evening Program)

Summer Quarter 1979

May 24	Early Orientation—Summer Quarter applicants who have applied and not been denied
June 22	Regular Orientation—Summer Quarter applicants who have applied and not been denied

Other Important Dates for Students

- I. Application for Admission or Readmission to the University—see pages 41, 46.
- II. Application for Admission to the Teacher Education Program—see page 510.
- III. Special Tests

Test Date	Registration Opens	Registration Closes
A.C.T. National		
October 21, 1978	August 7, 1978	September 22, 1978
December 9, 1978	October 9, 1978	November 10, 1978
February 10, 1979	November 27, 1978	January 12, 1979
April 7, 1979	January 29, 1979	March 9, 1979
June 23, 1979	March 26, 1979	May 25, 1979
A.C.T. Local *		
September 1, 1978	July 31, 1978	August 28, 1978
December 15, 1978	November 6, 1978	December 11, 1978
March 10, 1979	February 5, 1979	March 5, 1979
June 9, 1979	May 7, 1979	June 4, 1979
Code Exams		
<i>American History</i>		
November 9, 1978	October 9, 1978	November 6, 1978
February 8, 1979	January 8, 1979	February 5, 1979
April 12, 1979	March 12, 1979	April 9, 1979
August 2, 1979	July 2, 1979	July 30, 1979
<i>California Government</i>		
November 9, 1978	October 9, 1978	November 6, 1978
February 8, 1979	January 8, 1979	February 5, 1979
April 12, 1979	March 12, 1979	April 9, 1979
August 2, 1979	July 2, 1979	July 30, 1979
<i>American Constitution</i>		
November 10, 1978	October 9, 1978	November 6, 1978
February 9, 1979	January 8, 1979	February 5, 1979
April 13, 1979	March 12, 1979	April 9, 1979
August 3, 1979	July 2, 1979	July 30, 1979

* Local exams are scheduled for students who missed national dates and need scores for enrollment in subsequent quarters. Cost is higher than national test due to local scoring.

Test Date	Registration Opens	Registration Closes
S.A.T.		
October 14, 1978**		Contact Testing Services for Registration dates.
November 4, 1978**		
December 2, 1978		
January 27, 1979**		
March 31, 1979**		
May 5, 1979**		
June 2, 1979**		
English Placement Test		
October 28, 1978		October 6, 1978
January 6, 1979		December 16, 1978
May 12, 1979		April 20, 1979
G.R.E.		
October 21, 1978		Contact Testing Services for Registration dates.
December 9, 1978		
January 13, 1979		
February 24, 1979**		
April 28, 1979**		
June 9, 1979**		
M.C.A.T.		
September 30, 1978		
April 28, 1979		
September 15, 1979		
D.A.T.		
October 7, 1978		September 11, 1978
G.M.A.T.		
October 28, 1978		Contact Testing Services for Registration dates
January 27, 1979		
March 17, 1979		
July 7, 1979		
L.S.A.T.		
Miller Analogy Test		
N.T.E.		
T.O.E.F.L.		
<i>(Contact Testing Services for test dates and registration information)</i>		

** Tests will not be given at Cal State, Hayward. Registration materials are available at the CSUH Testing Services, AD 438.

1978

SEPTEMBER						
S	M	T	W	T	F	S
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24	25	26	27	28	29	30

OCTOBER						
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NOVEMBER						
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31						

1979

JANUARY						
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28	29	30	31			

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MAY						
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JUNE						
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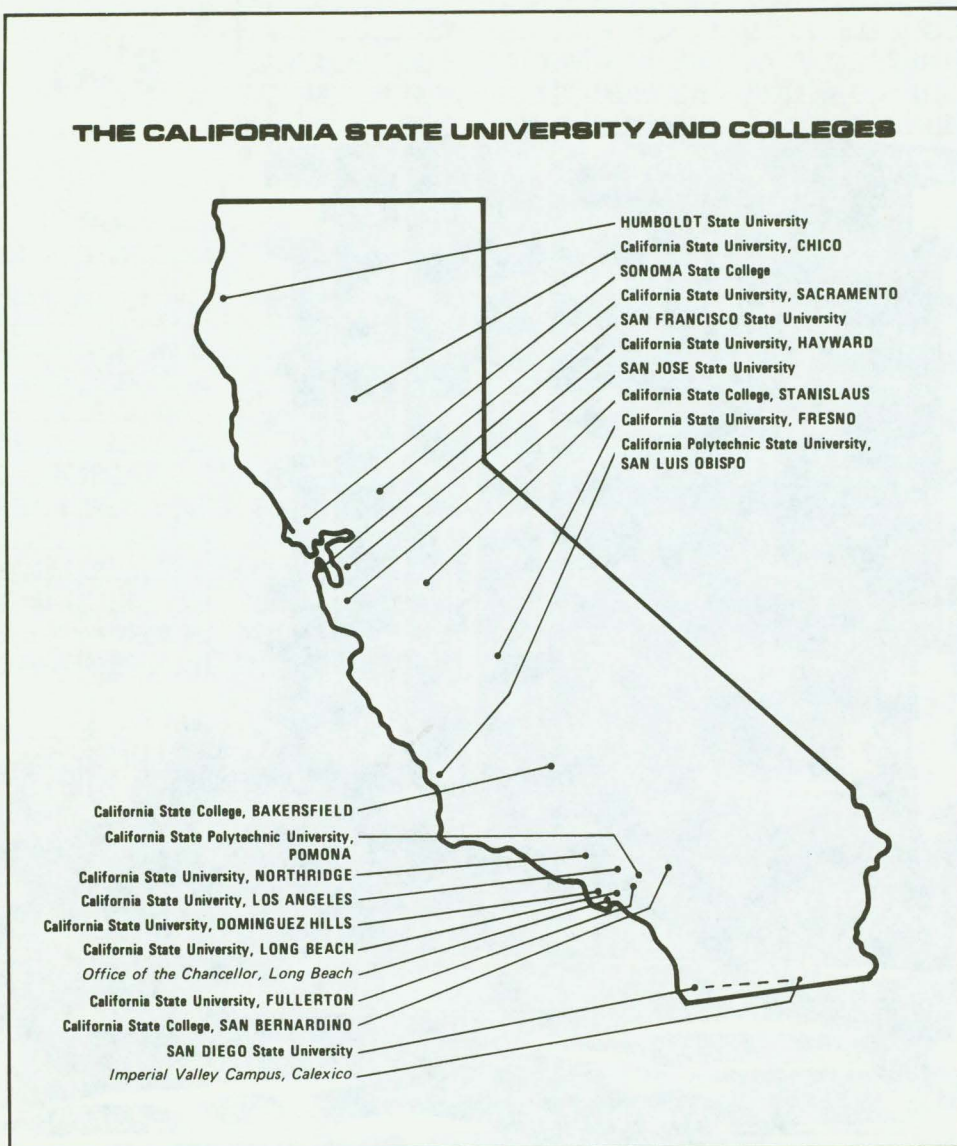
JULY						
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AUGUST						
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SEPTEMBER						
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23	24	25	26	27	28	29
30						



THE CALIFORNIA STATE UNIVERSITY AND COLLEGES



THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

The individual California State Colleges were brought together as a system by the Donahoe Higher Education Act of 1960. In 1972 the system became The California State University and Colleges.

The oldest campus — San Jose State University — was founded in 1857 and became the first institution of public higher education in California. The newest campus — California State College, Bakersfield — began instruction in 1970.

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

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

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

Presently, under the system's "New Approaches to Higher Education," the campuses are implementing a wide variety of innovative programs to meet the changing needs of students and society. Among pilot programs under way are instructional television projects, self-paced learning plans, minicourses, and credit-by-examination alternatives. *The Consortium of The California State University and Colleges* fosters and sponsors local, regional, and statewide external degree and certificate programs to meet the needs of individuals who find it difficult or impossible to attend classes on a campus.

Enrollments in fall 1977 totaled 300,000 students, who were taught by a faculty of 17,000. Last year the system awarded over 54 percent of the bachelor's degrees and 34 percent of the master's degrees granted in California. Over 662,000 persons have been graduated from the 19 campuses since 1960.

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Chair, Department of Nursing	Jane A. M. Frazier
Chair, Department of Physics	Robert H. Good
Chair, Department of Psychology	Norman Livson
Chair, Department of Statistics	Dean H. Fearn
Director, Health Sciences Program	John C. Wong

Planning and Development

Executive Dean	William G. Vandenburg
Coordinator of Building Program	Alvin Dusel
Chief, Plant Operations	Donald Farley
Administrative Assistant to the Chief	George A. Anderson
Chief, Campus Patrol	James Harrison

Student Services

Dean of Students	Lyle D. Edmison
Administrative Assistant to the Dean	Kenneth Alan Kramer
Associate Dean, Activities	Edwin Reuling
Activities Adviser	Scott L. Primm
Activities Adviser	Carol Chadwick
Director of Housing Services	Harold Hoskins
Associate Dean, Special Programs	Joan Seavey Thomas

18 / Administration

Program Adviser	Carol P. Safir
Program Adviser	Hal G. Gin
Medical Officer	C. Harmon Brown, M.D.
Director of Counseling Services	Betty Wenz
Assistant Director, Counseling Services	Claire Fairhurst
Coordinator, Learning Center	June Taber
Director of Testing and Research	Robert Trinchero
Test Officer	Charles Dunbar
Psychometrist	Susan C. Calcagno
Director of Student Financial Aids	Janis Linfield
Assistant Director, Financial Aids	Betty H. Fuhrig
Financial Aids Counselor	Aaron J. Basey
Financial Aids Counselor	Margo Takemiya
Financial Aids Counselor	Joan MacIsaac
Financial Aids Counselor	Kevin Smith
Director of Placement Services	Eugene W. Clark
Assistant Director, Placement Services	Richard F. Lopez
Career Adviser	Ernest Clemens
Career Adviser	Bonnie Gilpin
Career Adviser	Nancy Olsson
Career Adviser	Lue Ruibal
Coordinator of Veteran Affairs	Mike Kidwell

Business Services

Business Manager	Earle W. Nordstrom
Financial Services Officer	Lee Bateman
Accounting Officer	Fred Okamoto
Budget Officer	Ed B. Chastain
Payroll Officer	Bonnie Alfrey
Personnel Officer	Slade Lindemon
Procurement and Special Services Officer	Don S. Fletcher
Foundation Manager	William G. Nelson

Institutional Studies

Director of Institutional Studies	Leone Nidiffer
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Public Affairs and Information Services

Director of Public Affairs	Darrell M. Gray
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Computer Center

Director of Computer Center	Leo R. von Gottfried
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Intercultural Education and Resources Center

Director	Janet S. Blackwell
Associate Director	Arthur B. Scott
Assistant Director	Enrique Mendoza
Administrative Analyst	Michael Penn
Counselor	Robert Mahoney
Counselor	Judy Sakaki
Counselor	Terry Lee

GENERAL INFORMATION

PART I

**GENERAL INFORMATION
and
REGULATIONS**

GENERAL INFORMATION

For a listing of degree and credential programs offered by Cal State see page 109.

THE CAMPUS

Location and History

Located in the Hayward hills overlooking the San Francisco Bay Area, California State University, Hayward affords an excellent environment for educational development. Trees, grass and flowering shrubs abound on the campus which is only minutes away from most of the work and residential centers of this Northern California urban complex. Cal State strives to maintain a friendly atmosphere with close student-faculty relations, an emphasis on student self-government, and community involvement.

The location of the university is excellent for numerous reasons. Commuting is convenient with nearby BART rapid transit stations and AC Transit buses that journey regularly to the campus from BART and the various Bay Area regions. The university is only a short distance from the Nimitz Freeway and Interstate Highway 580.

In addition to its own facilities and activities, Cal State's proximity to many of the major Bay Area cities provides unique cultural opportunities including museums, libraries, art galleries, aquariums, planetariums, plays, musicals, and concerts. Its nearness to the ocean and mountain areas offers recreational diversion as well as an excellent laboratory for educational studies.

California State University, Hayward is one of the newer members of the 19-campus California State University and Colleges system. Beginning operation in 1959 in temporary quarters in downtown Hayward, CSUH moved to its present hilltop location in 1963. Approximately 11,000 students registered for classes in Fall, 1977.

Physical Facilities

Physical facilities include contemporary instructional buildings devoted to music, fine arts, physical education, speech, drama, and the sciences; a large general classroom building; a student union-bookstore; a library-administration complex; a fully-equipped student health center; a cafeteria complete with Coffee Haus; and a 9,000-seat stadium.

Special facilities include a 500-seat proscenium theatre with professional quality, computerized lighting and sound equipment. The theatre complex also houses a studio theatre and an excellent area for set design and construction.

Central to the campus is the large, modern Library, featuring open shelves with adjacent study areas, which currently houses a collection of over one-half million volumes including bound periodicals, 68,000 federal, State and international documents, 13,000 phonorecords, 175,000 items in microformat, and 13,000 maps. The Library currently subscribes to 2,400 periodicals and nearly 21 newspapers of local, State, national and foreign origin.

A new addition to Cal State's facilities is a 8,400 square-foot television facility—one of the largest on the West Coast—providing complete studios for color and black-and-white productions.

The educational emphasis is on individualized learning. Most classes are small, providing an atmosphere where a student will find faculty easily accessible. The curriculum presents a balanced educational approach of liberal arts and applied degrees both in undergraduate and graduate programs. There is a broad program in extension and summer sessions offerings as well as an expanding array of late afternoon and evening classes that lead to a degree. In addition, International Programs offer study at a number of distinguished universities abroad.

Services that enable students to realize their full academic potential are of key importance. The University maintains a Learning Center, a fully equipped foreign language lab, a Disabled Student Center, an Intercultural Education and Resources Center (IERC), a Student Advising Center, the Computer Center and two calculator labs, and an on-campus ecological field station as well as access to the Moss Landing Marine Laboratories near Monterey and a geology summer camp near Yuba Pass in the Sierra Nevada.

Quarter System, Quarter Unit

California State University, Hayward operates on the quarter system with each quarter approximately 10 weeks in length. Enrollment in *Extension* courses or in *Summer Session* does not constitute enrollment in a *quarter*. Enrollment in a quarter after admission to the University constitutes matriculation.

One (1) semester unit is equivalent to one and one-half (1½) quarter units of credit.

Accreditation

California State University, Hayward is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges.

The Department of Art has accredited membership in Division II of the National Association of Schools of Art.

The B.A. and M.A. in Music are accredited by the National Association of Schools of Music.

The B.S. in Business Administration is accredited by the American Assembly of Collegiate Schools of Business.

All of the University's programs for teaching and services credentials are approved by the California State Commission for Teacher Preparation and Licensing.

The professional preparation programs of the School of Education are accredited by the National Council for Accreditation of Teacher Education.

The B.S. in Chemistry is accredited by the American Chemical Society.

The B.S. in Nursing is accredited by the National League for Nursing and the California State Board of Registered Nursing.

CONTINUING EDUCATION SERVICES

Extension

In addition to the regular resident-credit campus offerings, Continuing Education Services provides many other opportunities to those who wish to continue their education. These offerings may be for credit or personal growth; they are generally off-campus at various locations within Alameda and Contra Costa counties and they are open to non-matriculated students.

A broad spectrum of extension courses is offered for upper division students who wish to complete baccalaureate degree requirements. Professional level extension courses are offered to aid teachers, other educators, managers in governmental agencies, business, the social services, and others interested in strengthening their professional preparation.

Continuing Education Services organizes seminars, workshops, and conferences for groups in the community designed to help them increase their vocational competence, to enrich and broaden their cultural life, and to help them come to a fuller realization of their personal goals.

Registration in extension courses does not require formal admission to the University, it does not provide "continuing student" status to returning campus students, and it does not imply admission.

Information on course offerings, extension enrollment procedures, and other phases of the Continuing Education program can be obtained from the Dean of Continuing Education, *AD 851*.

External Degrees

The Consortium of The California State University and Colleges has developed the academic programs and awards degrees in the following majors which Cal State, Hayward, administers in our service area:

B.A. Business Administration

M.P.A. Public Administration

Extension Concurrent Registration

Concurrent enrollment of non-matriculated students who have the necessary prerequisites is provided through Continuing Education in regular on-campus classes with the permission of the instructor and provided space is available. Students should obtain a "Permit to Enroll" from the Department concerned or Continuing Education to be signed by the faculty member or Department Chair. Completed forms and payment of fees must be turned in to Continuing Education by the last day of Add-Drop period.

Summer Session

The summer session is offered *in addition to and separate from the regular, full-length summer quarter*. It is designed, primarily, to meet the needs of teachers and other professionals who wish to improve their professional competence; however, courses of general interest (catalog-listed courses) are offered in addition to short-term classes covering a wide range of topics in seminars, workshops, and institutes of special interest to teachers, supervisors, and school administrators. The academic load for full-time undergraduate students is 1.5 undergraduate units of coursework per week. The academic load for full-time graduate students is 1 graduate unit of coursework per week. Permission to enroll for more than 2 units per week requires the written approval of the Dean of Continuing Education.

Because prospective summer session students do not formally apply for admission to the University, attendance during a summer session does not constitute either "continuing student" status for any quarter or admission to any regular quarter.

Application forms and information on course offerings are available from the Dean of Continuing Education, *AD 851*.

INTERNATIONAL PROGRAMS

The California State University and Colleges (CSUC) offers opportunities for students to pursue their studies at a distinguished foreign university or special program center. Under the auspices of the CSUC Office of International Programs, participants in this program are concurrently enrolled at their home campus, where they earn academic credit and maintain campus residency, and at an overseas institution of higher education. (See page 331.)

VETERANS' LEGISLATION AND MILITARY STATUS

A permanent GI Bill providing college educational allowances and other benefits for veterans is now in effect. For information on eligibility and procedures, contact the Veterans' Administration, 211 Main Street, San Francisco, California, or the Office of Veterans' Affairs, AD 447, at California State University, Hayward.

Quarterly Renewal—Each student attending the University under provisions of the Veterans' Administration or the Cal-Vet program is expected to clarify his/her status with the Records Office at the beginning of each quarter *during* the registration period and is responsible for reporting any changes in enrollment as they occur to the Records Office Veterans' Clerk and the V.A.

Full-Time Unit Load—A veteran (or dependent of a disabled or deceased veteran), under either Chapter 34 or 35, must carry 12 or more units in order to be considered a full-time student according to V.A. regulations. A graduate student must be enrolled in courses that apply to a definite program (Master's degree and/or credential). Enrollment for graduate students is computed in terms of weighted units. In computing weighted units, graduate units (5000 through 6000 level courses), whether taken alone or in combination with undergraduate units, are given a 1.5 weighted measurement. For example, three undergraduate units (3 × 1

= 3) plus six graduate units ($6 \times 1.5 = 9$) would total 12 weighted units, or full time.

Information—Information about Veterans' Administration or Cal-Vet regulations is available from the Veterans' Representative, room 447 of the Administration Building.

ROTC PROGRAMS

Although California State University, Hayward offers no program or courses leading to a military commission, interested students may enroll in the programs in the Department of Military Science (74 Harmon Gymnasium), Naval Science (25 Callaghan Hall), or the Department of Aerospace Studies (10 Callaghan Hall) at the University of California, Berkeley through cross registration. (For information on the cross-registration program, see page 53.) Flying cadets receive free flight instruction during their senior years leading to FAA Private Pilot's Licenses. For further information about the ROTC programs direct inquiries to the Office of the Dean of Undergraduate Studies, AD 859, or the departments at Berkeley.

ALUMNI ASSOCIATION

A strong, enthusiastic Alumni Association works closely with the students of CSUH, to promote and foster good relationships between the students of the University, the community, and the alumni. Funds of the Alumni Association from contributions and other sources are used to help support the educational programs of CSUH.

All persons who have ever attended the University and who are no longer registered as undergraduate students are eligible for membership in the Alumni Association. Annual and life memberships are conferred upon payment of Annual Dues. Contact the Office of Public Affairs, AD 908.

DEFINITIONS

Unit: The standard quantity for measurement of college and university work. One unit equals one hour of classroom work per week in most classes, predominantly those of lecture or lecture-discussion formats. It is generally assumed that a student spends two hours of outside preparation for each hour spent in such classes. In laboratories, there are three hours of work per week per unit and in activity classes, two hours per week, per unit. (In specialized performance classes in drama, music, and intercollegiate athletics, there are more than three hours per week required per unit.) Each unit earned on the quarter system equals two-thirds of a unit earned on the semester system. Conversely, a semester unit equals one-and-a-half quarter units. A minimum of 186 units are required for a baccalaureate (bachelor's) degree on the quarter system. A Master's Degree requires a minimum of 45 quarter units.

Degree: The academic title conferred upon a student who has successfully completed a certain number of units, including certain specified patterns of courses, with a 2.00 (undergraduate) or 3.00 (graduate) grade point average, and various other requirements listed in the State Education Code (Title 5). The undergraduate degree program consists of three parts: a major, the general education-breadth requirements, and free electives. These terms are defined below. There are two undergraduate (also known as baccalaureate or bachelor's) degrees: the bachelor of arts and the bachelor of science degrees. The B.A. Degree requires 186 quarter units of which at least 60 must be upper division. The B.S. Degree requires from 186 to 198 quarter units, depending on the major program, of which at least 60 must be upper division. Master's Degrees require a minimum of 22½ quarter units of graduate level (6000 numbers) courses. Detailed degree requirements are listed in the section of the catalog entitled "Undergraduate Graduation Requirements" and "Graduate Degrees and Regulations."

Major: A specified pattern of courses in a particular discipline or group of disciplines. For undergraduates, it must consist of at least 36 quarter units (B.A. Degree) or at least 54 quarter units (B.S. Degree). All units required by the major department are included even if they are not themselves taught in the major department. CSUH majors range in size from 48 to 167 units. At least 18 upper division (junior and/or senior level) quarter units are required for B.A. majors and 27 upper division quarter units for B.S. majors. An *option* is a prescribed pathway through a major which allows for emphasis on a particular segment of the discipline. Not all majors have formal options.

General Education-Breadth Requirements: That component of the undergraduate coursework which assures the student is exposed to the major areas of human knowledge: humanities,

natural sciences, social sciences, and the basic skill subjects of oral and written communication, logic, mathematics, and statistics. In addition, CSUH requires some coursework in the creative and performing arts and activities. The G.E.-Breadth requirement at CSUH is 76 quarter units of which at least 16 must be taken as an Upper Division student. Because most majors require some coursework outside the department, some of the G.E. requirements may be satisfied by completion of major requirements. No course taken in the major department may be applied to G.E.

Free Electives: That component of the undergraduate degree which is not prescribed by either the major or the General Education-Breadth requirement. Generally, free electives compose about 20–25% of the required units for the degree, but their amount is highly variable and depends upon the student's major. In large majors, such as the sciences and business administration, the number of units of free electives is more restricted.

Minor: An academic minor is a coherent program of courses in some field or group of related fields other than the student's major. Minors range from 30 to 48 quarter units in size and at least 18 quarter units must be in upper division courses. No student is required to have a minor. Courses taken to satisfy the requirements of a minor may be applied to G.E. (Interdisciplinary minors typically allow a student to use a few units in the major department.)

INTERNSHIPS—COOPERATIVE EDUCATION

Internship programs which enable the student to do paid or volunteer work in field settings are available in a number of departments. These include the Departments of Art, Black Studies, Foreign Languages, Geography, Human Development, Mass Communication, Mexican-American Studies, Political Science, Public Administration, and Sociology in the School of Arts, Letters and Social Sciences; the Departments of Accounting, Management Sciences, and Marketing in the School of Business and Economics; the Departments of Educational Psychology, Recreation, School Administration and Supervision, and Teacher Education in the School of Education; and the Departments of Earth Sciences, Nursing, and Psychology in the School of Science. The Placement Office of the University coordinates Cooperative Education (work and study) Programs between the campus and private/public agencies.

STUDENT RIGHTS AND RESPONSIBILITIES

Each student must assume responsibility for his or her progress by keeping an up-to-date record of the courses he or she has taken and by checking periodically with his or her academic adviser. Responsibility for errors in program or in interpretation of regulations of CSUH rests with the student. Advice is always available upon request.

Students are expected to attend all meetings of their classes. Excessive unexcused absences will be sufficient reason for lowering a grade or refusing to allow a student to take final examinations.

Student Conduct

Students who commit acts which are incompatible with the educational mission of the University are subject to disciplinary action. The following violations of the California Administrative Code are among those for which, following procedures which protect rights of due process, a student may be expelled, suspended, placed on probation or given a lesser sanction:

- 1) Cheating or plagiarism in connection with the academic program.
- 2) Forgery, alteration or misuse of University documents, records or identification or knowingly furnishing false information to the University.
- 3) Obstruction or disruption, on or off campus property, of the University's educational process, administrative process or other University function.
- 4) Physical abuse or the threat of such abuse on or off campus property of the person or property of any member of the University community.
- 5) Theft of, or non-accidental damage to University property or property of a member of the University community.
- 6) Unauthorized entry into, unauthorized use of, or misuse of University property.
- 7) The sale or knowing possession of dangerous drugs or narcotics on University property.
- 8) Knowing possession or use of explosives or deadly weapons on University property.

Privacy Rights of Students in Education Records

The federal Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232g) and regulations adopted thereunder (45 C.F.R. 99) and California Education Code Section 67100 et seq., set out requirements designed to protect the privacy of students concerning their records maintained by the campus. Specifically, the statute and regulations govern 1) access to student records maintained by the campus, and 2) the release of such records. In brief, the law provides that the campus must provide students access to official records directly related to the student and an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading or otherwise inappropriate; the right to a hearing under the law does not include any right to challenge the appropriateness of a grade as determined by the instructor. The law generally requires that written consent of the student be received before releasing personally identifiable data about the student from records to other than a specified list of exceptions. The institution has adopted a set of policies and procedures concerning implementation of the statutes and the regulations on the campus. Copies of these policies and procedures may be obtained at Dean of Students Office, AD 959. Among the types of information included in the campus statement of policies and procedures is: 1) the types of student records and the information contained therein; 2) the official responsible for the maintenance of each type of record; 3) the location of access lists which indicate persons requesting or receiving information from the record; 4) policies for reviewing and expunging records; 5) the access rights of students; 6) the procedures for challenging the content of student records; 7) the cost which will be charged for reproducing copies of records, and 8) the right of the student to file a complaint with the Department of Health, Education and Welfare. An office and review board have been established by the Department to investigate and adjudicate violations and complaints. The office designated for this purpose is: The Family Educational Rights and Privacy Act Office (FERPA), Department of Health, Education and Welfare, 330 Independence Avenue, S.W., Washington, D.C. 20201.

The campus is authorized under the Act to release public directory information concerning students. Directory information includes the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, the most recent previous educational agency or institution attended by the student and any other information authorized in writing by the student. The above designated information is subject to release by the campus at any time unless the campus has received prior written objection from the student specifying information which the student requests not be released. Written objections should be sent to the Dean of Students Office, AD 959.

The campus is authorized to provide access to student records to campus officials and employees who have legitimate educational interests in such access. These persons are those who have responsibilities in connection with the campus' academic, administrative or service functions and who have reason for using student records connected with their campus or other related academic responsibilities.

Nondiscrimination on the Basis of Sex

The California State University and Colleges does not discriminate on the basis of sex in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972, as amended, and the administrative regulations adopted thereunder prohibit discrimination on the basis of sex in education programs and activities operated by California State University, Hayward. Such programs and activities include admission of students and employment. Inquiries concerning the application of Title IX to programs and activities of California State University, Hayward may be referred to Robert S. Portillo, Special Assistant to the President, the campus officer assigned the administrative responsibility of reviewing such matters or to the Regional Director of the Office of Civil Rights, Region 9, 760 Market Street, Room 700, San Francisco, California 94102.

Nondiscrimination on the Basis of Handicap

The California State University and Colleges does not discriminate on the basis of handicap. The CSUC operates in accordance with Section 504 of the Rehabilitation Act of 1973, as amended, and the regulations adopted thereunder, in admission or access to or treatment or employment in the programs and activities of The California State University and Colleges. Robert S. Portillo, Special Assistant to the President, has been designated to coordinate the efforts of California State University, Hayward to comply with the Act and its implementing regulations. Inquiries concerning compliance may be addressed to this person at the President's Office, California State University, Hayward, CA 94542 (881-3870).

Institutional and Financial Assistance Information

The following information concerning student financial assistance may be obtained from Janis Linfield, Director of Student Financial Aids, AD 545 (881-3018):

1. Student financial assistance programs available to students who enroll at California State University, Hayward;
2. The method by which such assistance is distributed among student recipients who enroll at California State University, Hayward;
3. The means, including forms, by which application for student financial assistance is made; the requirement for accurately preparing such applications; and the review standards employed to make awards for student financial assistance; and
4. The rights and responsibilities of students receiving financial assistance.

The following information concerning the cost of attending California State University, Hayward is available from Janis Linfield, Director of Student Financial Aids, AD 545 (881-3018). This information includes:

1. Tuition fees;
2. Estimated costs of books and supplies;
3. Estimates of typical student room and board costs or typical community costs; and
4. Any additional costs of the program in which the student is enrolled or expresses a specific interest.

Information concerning the refund policy of California State University, Hayward for the return of unearned tuition and fees or other refundable portions of costs is available from Judith Hirsch, Director of Admissions and Records, AD 263 (881-3828).

Information concerning the academic programs of California State University, Hayward may be obtained from Judith Hirsch, Director of Admissions and Records, AD 263 (881-3828). This information may include:

1. The current degree programs and other educational and training programs;
2. The instructional, laboratory, and other physical plant facilities which relate to the academic program;
3. The faculty and other instructional personnel; and
4. Data regarding student retention at California State University, Hayward and, if available, the number and percentage of students completing the program in which the student is enrolled or expresses interest.

SERVICES, ACTIVITIES, AND FACILITIES

STUDENT SERVICES

The University offers a variety of services to students under the direction of the Dean of Students, Associate Deans, and the Directors of Programs. The Student Services augment the academic programs of the University by providing students opportunities to obtain maximum benefit from their University experience, and by facilitating a variety of special programs of interest to students and faculty.

Children's Center

Child care is available to students, faculty, and staff for pre-school children. The Children's Center is located at 27287 Patrick Avenue, Hayward, across from George Weekes Park and approximately 10 minutes from campus.

This State licensed program provides both a relaxed family atmosphere and a stimulating educational program, under the supervision of a paid professional staff supplemented by volunteers from many departments on campus. Some parental participation is required.

The Center is jointly funded by parent fees and an annual subsidy from the Associated Student Body fees.

For information and registration call the Associated Student Office at 881-3901. Space is limited—early inquiry is suggested.

Counseling Services

Counseling services provide assistance without charge regarding personal problems of an academic, vocational, or emotional nature for all students who are officially enrolled at the University. Consultation with a professional counselor is voluntary and all counseling interviews are treated in a confidential manner. "Drop-in" counseling is conveniently available in three satellite centers and the main location as follows:

Drop-in Counseling	SC N150 — Monday and Wednesday
Student Drop-in Center.....	FA 242 — daily
Student Service Center	MU 2564 Tuesday and Wednesday
Counseling Services (Main)	AD 408 — Noon — daily

Initial appointments are arranged promptly in the main office and may be extended to include several regular individual interviews. Vocational interest and psychological testing is provided upon recommendation of a counselor. Emergency and referral services are also available.

In every respect, the counseling staff attempts to assist the student to obtain more from available educational opportunities, to improve interpersonal and social relationships, to set and achieve appropriate vocational goals, and to increase personal satisfaction and self-worth. Group counseling is available in addition to consultation on an individual basis. The Counseling Service is located in AD 408 (881-3761).

Disabled Student Services Center

The Disabled Student Services Center, under the direction of the Coordinator of Disabled Student Services and the Associate Dean of Students/Special Programs, provides a variety of services to prospective and continuing students with visual, aural and physical impairment. A University-wide Advisory Committee for Services to the Disabled Students brings together students, faculty, and service personnel from all segments of the University to study and recommend program and service alterations or additions. A Special Services Center provides a place where students can meet their friends, readers, tutors, notetakers, and interpreters, where they can rest or leave materials, and equipment, and where they can meet University counselors, rehabilitation and Veterans Administration counselors.

Many services are available to disabled students, and the University encourages applications from any academically able students wishing to begin or continue their higher education. Services for the deaf, the blind, and the physically disabled include coordination of reading,



tutoring, notetaking and interpreting services, registration assistance, academic and personal advising, liaison with other campus and community services such as health, counseling, housing, financial aid. Prospective students are advised to make appointments for a campus visit by calling (voice or MCM) 881-3868.

Financial Aids Office

The Student Financial Aid Office, AD 545, phone 881-3616, coordinates all University-administered Financial Aid Programs and Scholarships.

Loans and Grants: Students with demonstrable financial aid eligibility may be considered for one or more of the following aid programs: National Direct Student Loan, Federally Insured Student Loan, Supplemental Educational Opportunity Grant, California Educational Opportunity Program, Nursing Loans and Grants. Law Enforcement Education Program Grants are available to eligible students employed in law enforcement agencies. Basic Educational Opportunity Grant and Bureau of Indian Affairs Grant applications are available through the Financial Aids Office.

In addition to the long-term loans and grants listed above, the Student Financial Aids Office administers short-term (30 days) emergency loans and intermediate term (9 months) Foreign Student Loans. A maximum of \$100 may be awarded from the emergency loan fund with repayment within 30 days with no interest charges. A maximum of \$200 may be awarded from the Foreign Student Loan Fund with repayment within 9 months with no interest charges.

Work-Study Program: Students who have demonstrated financial aid eligibility as determined by the Financial Aids Office may be eligible to participate in the University Work-Study Program. These funds are earned through part-time employment, on or off campus, and enable students to meet their educational expenses without incurring an unduly heavy burden of indebtedness. The work-study application and application procedure is the same as that of the other aid programs above.

Financial Aid Applications: Applications for Financial Aid may be obtained from the Student Financial Aids Office, AD 545. Students applying for admission under the common admissions procedures of The California State University and Colleges System have an opportunity to request financial assistance as a part of the application procedure. Since the application process may take as long as six (6) weeks, the student is advised to file for financial assistance early. The initial deadline for completion of the application process for the following Fall Quarter (including submission of all support documents) is April 15.

Foreign Student Information

Students from other countries should consult with the Office of Admissions and Records on matters affecting their visas, eligibility for employment, and any special academic requirements for foreign students.

All matters pertaining to applications and admissions for foreign students are handled by the Office of Admissions and Records. [See *Admission of Foreign Students*, page 46].

Health Services

In conformity with the Education Code of the State of California, the objective of the Student Health Services is to protect and preserve the physical and mental health of the students. This encompasses health education, the prevention and treatment of illnesses and injuries, and the provision of a safe and healthful environment.

The Student Health Center is open 8:00 a.m. to 6:00 p.m., Monday and 8:00 a.m. to 5:00 p.m. Tuesday through Friday when CSUH is *in session*, and 8:00 a.m. to 5:00 p.m., Monday through Friday, when CSUH is *not in session*. Students *currently enrolled* are eligible for the out-patient services available. *Continuing* and *pre-registered students* are eligible for available out-patient services, on a fee basis, during the Summer Quarter and quarter breaks. Requests for service should be on an appointment basis if possible.

Students are urged to avail themselves of the supplementary health insurance offered by the Associated Students, as this provides coverage for hospitalization, special laboratory tests, and for illness or injury when the Student Health Center is not open.

Athletic Injuries

Injuries arising from intramural athletics may be treated at the Student Health Center. The State of California, CSUH, and the Associated Students do not assume nor acknowledge responsibility for injuries to the students incurred in intercollegiate athletics.

Housing

California State University, Hayward has no on-campus housing. Therefore, a major function of the University housing program (Housing Office, AD 587, 881-3601) is to act as an informational service for students in search of living accommodations. Due to a shortage of inexpensive housing in the Hayward area, it is helpful to know where and how to begin looking and some general guidelines to follow. Through direct contact with a student, his or her housing needs can be determined in line with what the student feels he or she can afford, and direct steps can be taken to help them obtain satisfactory housing.

Off-Campus Housing: The Housing Office maintains a free card-file listing service of off-campus accommodations available to Cal State students on a non-discriminatory basis. These listings are revised daily and include furnished and unfurnished apartments, houses, rooms with kitchen privileges and rooms (with and without board). Card file listings for students who have found an apartment or house on their own and want a roommate to share expenses are also maintained in the office. Listings are not mailed out as they are continually changing. Most accommodations are located in the Hayward area and surrounding communities. The office acts as an information agency only and assumes no responsibility for the adequacy or suitability of the accommodations listed with it as we do not inspect any of the rentals.

Off-Campus Residence Hall: Adjacent to the campus is a privately owned and managed residence hall accommodating 304 men and women students. It has dining and recreational facilities. Parking is available at a nominal fee to all residents. There are a limited number of work-opportunities available to hall residents.

Insurance

Voluntary insurance plans covering sickness and accidents are available to students. Further information may be obtained from the Associated Students Business Manager.

Intercultural Education and Resources Center

The Intercultural Education and Resources Center, Library, 2190, identifies disadvantaged and low-income students who show potential and facilitates their entrance into the University, and assists them in successfully completing college. Supplemental services are offered in the form of orientation, pre-registration advising, counseling and advising, and tutoring. The program also provides a variety of educational services for disadvantaged and low-income students which includes supportive academic services and development of experimental programs. Other purposes of the program are: to assist the program participants in meeting their various educational needs; to build self confidence; to provide the opportunity for successful academic achievement and graduation; to offer career counseling and guidance; and to encourage students to challenge and excel in subject areas critical to community needs. The program seeks to meet these objectives by furnishing tutorial assistance, counseling and writing assistance, academic program planning, and information regarding entrance to graduate and professional schools.

In addition, the Center provides part-time employment for students as tutors or clerical and staff assistants.

Students who are economically or educationally disadvantaged and who may not meet regular admission requirements but can offer evidence of their ability to achieve satisfactorily at the college level are invited to make inquiries about the Educational Opportunity Program (EOP) or the Special Admissions Program.

Learning Center

The Learning Center is designed to help students become efficient, effective and self-confident learners. Specific programs are designed to prepare students to meet the University's academic standards and successfully attain his/her own educational goals. Services include

individual and group programs ranging from assisting the student whose deficiencies in Math, English or general study skills severely interfere with general academic performance to organizing theses or review programs for graduate level examinations. Other programs are designed for students who have specific difficulties with a course, such as math used in statistics, organizing and writing a term paper, separating main ideas from supporting details in a reading assignment, or memorizing vocabulary and concepts in languages and sciences. Additional services include individualized reading programs; personalized, confidential analysis of study habits, basic reading, math, English and/or academic skills. Most programs are of particular benefit to Freshmen, Sophomores and transfer students who are in need of developing effective learning strategies at the University level. Appointments are easily made, and drop in services are also available. (Library, Room 2152)

Placement Center

The Student and Graduate Placement Center basically offers three types of assistance to students and graduates. The first consists of helping *currently enrolled* students obtain part-time, temporary, college work study, and vacation employment during their attendance at the University. Inquiries regarding this type of assistance should be made in AD 593.

Secondly, this Center, as well as the Counseling Center, provides career counseling to students who, prior to graduation, are uncertain as to their future career goals. For this as well as the following service inquire in AD 509.

Finally, the Center provides assistance for students or graduates who have completed or are within two quarters of completing degree-requirements, and for students or graduates who have completed or are within two quarters of completing an approved credential program at California State University, Hayward. This assistance is in locating teaching, administration, or special service positions in the public schools and in college or various positions in business or government. Modest fees are required for some services to alumni.

The Placement Center also coordinates the Cooperative Education program and some internship programs.

Scholarships

A limited number of scholarships are awarded to qualified students attending California State University, Hayward. Recipients are selected by the University Scholarship Committee on the basis of scholarship, financial need and the criteria established by the donor. Information concerning applications, etc., is available in the Financial Aids Office and the Dean of Students Office.

Special Programs

Under the direction of the Associate Dean of Students/Special Programs (fifth floor of the Administration Building), several programs and services are now available to students:

Orientation: Orientation programs for new students and prospective students are planned each quarter. Coordinated by the Associate Dean of Students/Special Programs, student volunteers and University faculty personnel provide information folders, parent information sessions, tours of the campus, off-campus programs, special assistance in study skills, registration procedures, academic requirements and program planning.

Prospective Student Assistance: Prospective students (freshmen or transfers) seeking information about the University programs and services are invited to call or to visit the Office of the Associate Dean of Students/Special Programs. Call 881-3657. Appointments are not necessary (AD 567).

Re-Entry Center: A Re-Entry Center provides assistance to students who are considering re-entry into Education after some time away from school. Volunteer peer advisers are available at the Center (AD 571) to assist students in beginning their work at the University or in continuing it. The Center is open five days a week and on some evenings. Drop in assistance and referral (or appointment) available—Call 881-3657.

Travel Service Center: Students planning overseas travel are invited to counsel with the adviser in the Office of the Associate Dean of Students/Special Programs located on the fifth floor of the Administration Building. International Student Identification Cards, literature, and travel tips on lodging, transportation and customs are available.

Student Advising Center: A Student Advising Center (first floor of the Administration Building) gives "unofficial" assistance to students in transcript evaluation, general education graduation requirements review and interpretation, and program planning. Staffed by trained student volunteers, the office is open 5 days a week from 9 a.m. to 4 p.m. Students seeking information requirements in their academic major should see an academic adviser in their major Department.

Volunteer Programs: Student information on volunteer service projects on the campus or in the community is available in the Office of the Associate Dean of Students/Special Programs located on the fifth floor of the Administration Building.

Testing Services

The Testing Services office is located in AD 438 (881-3661). The office provides testing, scoring, consultation, and research services for students, faculty, and administration. Three general types of tests are administered: (1) national admission and matriculation tests for undergraduates and graduates, (2) individual tests for students referred by Counseling Services, and (3) other tests for CSUH offices, State Education Code Examinations, and tests requested through outside institutions.

The *ACT (American College Test)* or the *SAT (Scholastic Aptitude Test)* is required for all entering freshmen and transfer students with less than 90 acceptable quarter units. See page 39 for admission requirements.

The *EPT (English Placement Test)* is required for all entering lower division students. Upon acceptance to CSUH, students will be mailed a test application from Admissions and Records. For further information regarding *EPT*, contact Admissions and Records or Testing Services.

The *State Education Code* requirements in American History, the Federal Constitution, and State and Local Government may be met by course work or a special test constructed by CSUH academic departments. See page 92 for detailed information regarding Code requirements. Students may schedule appointments for taking the Code examinations by contacting Testing Services; see page 8 for test dates.

The *GRE (Graduate Record Examination)* is required by many but not all graduate departments. Most departments request completion of the aptitude test and, in some cases, advanced tests before the student is accepted for graduate work. See the Graduate degrees in this Catalog for further information.

The *MAT (Miller Analogies Test)* is required by some graduate departments. See individual graduate degrees in this Catalog for further information. The *MAT* is administered by Testing Services on a bi-weekly basis. Students may contact the office for examination dates and scheduling appointments.

The *MCAT (Medical College Admission Test)* and the *DAT (Dental Admission Test)* are administered at CSUH. Contact Testing Services for detailed information on both examinations.

A schedule of test dates is provided on pages 8 and 9 of this catalog. For information concerning the following tests inquire at the Testing Services office: *LSAT (Law School Admission Test)*, the *GMAT (Graduate Management Admissions Test)*, *TOEFL (Test of English as a Foreign Language)*, *English Equivalency Test and Science/Math Equivalency Tests*

In addition to tests administered by Testing Services, a number of academic departments give special admissions, placement, and other tests to students. For further information, inquire in the departmental office, or see the departmental section of this Catalog.

Transcripts

Official transcripts of course work taken at California State University, Hayward (including extension and summer session) may be obtained from the Records Office by completing the form for this purpose or by writing the request. Federal law prohibits the issuance of a transcript without the student's written consent. Information provided with the request should include: name, maiden name where applicable, social security number, address, dates of attendance, and the complete address to which the transcript is to be sent. The university cannot be responsible for consequences resulting from failure to supply any of the above information. There is a charge of \$1.00 for each transcript. Students are urged not to send cash

with mail requests. Although an official transcript can usually be sent within 24-48 hours, allow one week where possible. All transcripts issued to students must be marked "Issued to Student." Transcripts bearing the embossed University Seal are official even though they bear this notation. A work-in-progress report, listing classes in which a student is currently enrolled, is available free of charge when requested.

Transcript requests may be submitted by mail or in person at the Admissions and Records Information area in the lobby of the Administration building. Students who send someone to order for them must provide a written authorization to that person.

(See page 42 for *Transcripts From Other Institutions*.)

Veterans Affairs

The Office of Veterans Affairs (OVA), at CSUH serves the needs of regular and prospective veteran students and their dependents. It is located in AD 447 and may be reached at 881-3358. Services include: peer counseling/academic advising, occupational/vocational information, advocacy in dealing with the VA and the University, and referrals to social service agencies for other problem areas. A tutorial program makes an additional \$65 a month available to the veteran to pay a tutor. The Veterans Representative provides assistance with delayed checks and any other VA related matters.

STUDENT ACTIVITIES

Under the direction of the Associate Dean of Students/Activities several programs and services are available to students. The essence of collegiate life is the proper balancing of both the formal classroom experience with the informal collegiate experiences. The University provides this balance by encouraging student participation through a variety of activities designed to afford the participant intellectual, cultural, recreational and social opportunities. As part of that program the Student Activities Office coordinates the University student activities calendar, assists in planning and registration of student events, and the development of clubs and organizations and gives general student assistance in most areas of concern.

The Activities staff is available to provide assistance to recognized student organizations and their officers, as well as individual students interested in developing new campus activities. In addition, the Activities personnel serve as consultants in the on-going campus programs. General information related to student organizations and/or how to get involved in their activities can be obtained from the Associate Dean of Students/Activities Office, AD 465, or call 881-3741. Other student activities are available as noted below.

Clubs and Organizations

The University encourages the establishment of a variety of clubs and organizations. The opportunities provided can enrich the educational experience by offering a further means of intellectual as well as personal growth. The various activities sponsored by our approximately 70 chartered campus organizations incorporate a wide range of interests. Some of these interests are: recreational and sport activities, arts and crafts, religion, professional interests, academic subjects, current political and social issues, and fraternities and sororities. Information regarding the formation of new campus organizations, the various activities of current clubs and the names of their officers can be secured through the Activities Office, AD 459, or call 881-3871.

Cultural Activities

California State University, Hayward is a community which provides diverse co-curricular opportunities. There are excellent professional programs provided through departments and schools and supplemented by open programs on a variety of current topics. Lectures, music, drama, art, recreation and other programs are also sponsored by student organizations. These programs are encouraged to give students opportunities for enrichment and enjoyment through personal experience and to help students through lectures, films and other media to understand the cultural, economic and social world around them. For further information contact the Associate Dean of Students/Activities Office in AD 465 or call 881-3741.

Intercollegiate Athletics

C.S.U.H. has active programs of intercollegiate athletics for both men and women. The University is a member of the Far Western Athletic Conference and competes on the varsity level in baseball, basketball, cross country, football, soccer, swimming, tennis, track, water polo, and wrestling. The judo team competes on the varsity level under the rules and policies of the Central Coast Intercollegiate Judo Association.

The University is a member of the Golden State Conference for Women and offers a varied program of women's activities including basketball, gymnastics, swimming, tennis, track, softball, and volleyball.

A co-educational team is fielded in badminton.

In addition to the above there are also dance performance groups in modern, ethnic, and historical forms.

Physical Activity

The University encourages all students to participate in some form of physical activity. In addition to the program of intercollegiate athletics described above, opportunities exist for students to participate in instructional and recreational settings. The regular instructional program of sports, games, dance, and exercise is described in the offerings of the Department of Kinesiology and Physical Education. The intramural sports program, sponsored by the Associated Students, provides competitive opportunities during Fall, Winter, and Spring Quarters. The Intramural Office is located in PE 117 (881-3064). For those seeking recreational experiences, the Department makes its outdoor and indoor facilities available for use as frequently as possible. Information regarding programs and availability of facilities can be obtained either from the Physical Education Department (PE 130, 881-3061) or the Athletic Office (PE 103, 881-3038).

Student Government

Associated Students: Every registered student becomes a member of the Associated Students and is entitled to participate in its activities and to vote in all special and general student elections. The Executive Officers (elected annually) are the President, Vice President, and Secretary. The Student Council is composed of the Executive Officers, Representatives-at-Large, and Representatives from each of the academic schools of CSUH. If you desire to be involved in student government contact the Associated Students office, Union Building, or call 881-3901.

Student Representatives to Academic Senate and Senate Committees: Student representatives now serve on all faculty committees except the Faculty Affairs Committee and Promotion and Tenure Committees. For appointment to these committees contact should be made with the President of the Associated Students, Union Building, or call 881-3901.

The Student Council: Serves as the Executive Branch of the Student Government, appoints standing committees, charters clubs and organizations, prepares and supervises the budget of the Associated Students and works with the University in the planning, executing and evaluation of many of its many programs and projects.

The Council receives nominations for and makes appointments of student members to a variety of boards, commissions and committees which include administrative, faculty and student officers. Some of the more important of these include the Cultural and Athletic Board, the Auxiliary Foundation and the Publications Board.

School Councils: The students of each of the four schools in the University elect a Council which has responsibility for developing out-of-class activities of interest to the undergraduate and graduate students of that School. A portion of each student's student body fee is used to support activities as planned by the Council and its committees. Every student is encouraged to participate in the activities of his or her school, as well as Associated Student activities. For further information contact the Associated Students, Union Building, or call 881-3901.

Student Publications: The Associated Students sponsor *the Pioneer*, the student newspaper. This publication is produced in conjunction with the academic curriculum and under the policy control of the Publications Board. For information regarding student involvement in the production of the newspaper, contact the PIONEER, 881-3176.

SPECIAL FACILITIES

Art Galleries

The Hayward campus enjoys two exhibition spaces—the University Art Gallery and Gallery West—which make it possible to show different kinds of art in rooms admirably suited for shows of varying size and significance.

The University Gallery in FA 106, is a spacious rectangular room with an adjoining courtyard for the display of sculpture and other outdoor art, and is primarily intended for major exhibitions. It is admirably suited for shows by significant individual artists, group shows, and exhibitions of genre work.

Gallery West in FA 122, is more intimate, and usually has been devoted to work by younger or lesser known artists, including our own students.

The Galleries are admission free and are open to the public daily, Monday through Friday, and at specially announced times.

Calculator Labs

The School of Science operates a calculator room in South Science 148. A variety of modern electronic desk calculators is available for student and faculty use. An attendant is on duty during scheduled hours to help students operate the simpler calculators. Advanced and programmable calculators are available to students of an appropriate level who have had training in their use. Although science faculty and students taking courses in the School of Science have first priority in using this facility, every effort is made to accommodate other students and faculty.

The School of Business and Economics operates a calculator lab in MU 2515. Nearby are the Computer, Tutorial, and Video Labs.

Commuter-Computer

CSUH provides a computerized car-pool system originally devised by the Conservation-Ecology Club at the University. The Zip Code Directory enables students in a specified area to contact each other to make arrangements for rides to and from the University. The commuter-computer cards are in the registration packet. A compilation of rides and riders is published for student use shortly after registration. Copies of the Commuter Computer are always available in the office of the Associate Dean of Students/Special Programs, AD 567 and in department offices at the close of registration.

Computer Center

(Administration Building 387)

Campus computer facilities consist of:

- 1) a Control Data 3150 Computer System providing local batch service;
- 2) a Digital PDP 11/45 providing local interactive service;
- 3) access to the Control Data 3170-dual 3300 System at the State University Data Center (SUDC) providing central batch service; and
- 4) access to the Control Data Cyber providing central interactive service at the SUDC.

The SUDC is located at the Chancellor's Office in Los Angeles and is accessed over the State of California's Communications Network.

User facilities are concentrated in the Computing Lab (AD B101, B131, B135) located in the basement of the South wing of the Administration Building, which is open up to 97 hours a week during academic year quarters, seven days a week, and up to 74 hours a week, six days a week during summer quarter. Additional terminals accessing local and central interactive services are available in Music 2503, serving the School of Business and Economics, and in South Science 146. Several higher level languages are available both in batch and interactive modes as well as assembly language capabilities. Computer service is available to all appropriate instructional, research, and administrative needs. Instruction in computing, data processing, programming, etc., is available to students and staff through regular classes. Short courses for faculty, students and staff are offered at the beginning of each quarter, as needed.

It is *imperative* that all thesis students contemplating use of Computer Center facilities

attend an orientation session in AD B101 at the beginning of the quarter in which such use is intended.

Ecological Field Station

For studies in field ecology and animal behavior, the Ecological Field Station and its environs offer headquarters for graduate, as well as advanced undergraduate instruction and research. This facility, opened in early 1970, is located in the extreme southeastern part of the campus, in the vicinity of "Garin Woods," a 35-acre preserve of woodland-brush owned by the Research Foundation of California State University, Hayward. Adjacent to the Station is also an extensive grassland area.

The building, of approximately 1150 square feet, has a limited number of research cubicles and animal enclosures which are assigned on a quarterly to annual basis by the Field Station Committee (Department of Biological Sciences). The Committee also coordinates class and individual projects in the area.

Instructional Media Center

The University's Instructional Media Center provides a variety of services, equipment, and materials to support the instructional program of the University. IMC houses and distributes the University's collection of films, recordings, and other non-print media, along with the associated audio-visual equipment.

Special facilities and services include:

- Photographic and graphics areas for the preparation of instructional materials, slide/tape presentations, and films;
- Audio recording studio and tape duplicating facilities;
- 8400 square foot color television studio, where instructional and University-related programming can be videotaped;
- Multi-media rear screen projection facilities in Meiklejohn Hall;
- Consultation on the design and implementation of media into the instructional program.

The Instructional Media Center, as well as the new 96-station Language Laboratory and the Learning Center, are located in the east wing of the Library.

The University Library

The University Library is housed in a new, spacious building located directly east of the Administration tower. The 247,900 square foot building currently houses a collection of 565,486 volumes, including bound periodicals, 68,353 federal, state and international documents, 12,828 phonorecords, 174,566 items in microformat, and 13,351 maps. The Library currently subscribes to 2,480 periodicals and 21 newspapers of local, state, national and foreign origin.

Except for closed stack collections in the Reserve Book Room, unbound periodicals and phonorecords, library materials are arranged on open shelves interspersed with a variety of study facilities: individual carrels, tables, lounge furniture. Seating capacity in the building is 2,800 persons.

Special facilities include group study rooms, typing rooms, music listening facilities, a copy center where photoreproduction of books and microformat may be done, a cluster of rooms containing special equipment for blind and partially sighted students and a Map and Atlas Room. The Arnold P. Biella Memorial Room, opened in 1977 in memory of the late Dean of Instruction and other deceased members of the University community, provides a tasteful setting for individual reading, colloquia, and seminars.

There are two subject division areas in the Library: Education and Music. The Education area contains a laboratory collection of curriculum materials including textbooks, curriculum guides and juvenile literature, and a file of Educational Resources Information Center (ERIC) reports on microfiche. The Music area houses music books, scores and phonorecords and provides music listening facilities. Both the Education and Music areas are staffed by librarians who assist patrons in the use of the collections housed there.

Using the Library

Library handbooks, floor plans, informational brochures and professional assistance in using library resources and services are all available at the Reference Desk in the Lower Mall Lobby.

A 20 minute tape cassette tour of the Library may be checked out from the Main Circulation

Desk in the Lower Mall Lobby. Videotape cassettes which explain the use of important reference tools (*Readers' Guide*, the card catalog, etc.) may be checked out at the Reference Desk and viewed on the tape player in the Lower Mall Lobby.

Each quarter the Reference Department offers a one-unit self-directed course, G.S. 1500, Introduction to Library Skills. Information regarding the course may be obtained at the Reference Desk.

General library tours are offered several times daily during the first two weeks of each quarter.

Subject oriented lectures and tours are given to classes at faculty request.

Service hours are detailed in the library handbook and are posted at all doors.

Intercampus Borrowing Privileges

A mutual use agreement now exists among all 19 CSUC libraries. Hayward students may borrow materials from any of the libraries within the CSUC system by using their current Hayward registration card. Further information may be found in the library handbook.

Moss Landing Marine Laboratories

Instruction in marine biology, geology, meteorology, oceanography and other marine sciences is offered at the Moss Landing Marine Laboratories in conjunction with five other cooperating California State Universities and Colleges. Full-time course offerings are available for resident credit, and the facilities are used to supplement courses taught on the Hayward campus. The laboratories are located 82 miles south of Hayward on Monterey Bay. See Marine Sciences for further details and for courses offered at Moss Landing.

Parking

Campus parking facilities are available to students with the purchase of parking permits at the cost of \$10 per quarter. Parking permits may be purchased during Registration or at the Cashier's Office, lobby, Administration Building. A coin-operated parking lot at a cost of 25 cents per entry and a limited number of metered spaces at 5 cents per hour are available on campus.

Student Union

In the Fall of 1977, the Associated Students voted to approve remodeling and additions to the present cafeteria building to convert it into a permanent Student Union. Construction is expected to begin during the 1979-80 academic year. Food service will be uninterrupted by the construction. The present temporary Student Union is situated between the Science Building and Meiklejohn Hall.

ADMISSION TO CSUH

The following regulations and procedures governing admission to California State University, Hayward are subject to change without prior notice if necessary so that university policies are consistent with the policies of the Trustees of The California State University and Colleges.

GENERAL INFORMATION

NOTE: Students are held individually responsible for information contained in these pages. Failure to read and comply with policies, regulations, and procedures will not exempt a student from whatever penalties he or she may incur.

Requirements for admission to *California State University, Hayward* are in accordance with Title 5, Chapter I, Subchapter 3, of the *California Administrative Code*. Prospective applicants who are unsure of their status under these requirements are encouraged to consult a high school or college counselor or the Admissions Office. Applications may be obtained from the Admissions Office at any of the campuses of The California State University and Colleges or at any California high school or community college.

Requirement and Use of Social Security Number

Applicants are required to include their social security number in designated places on applications for admission pursuant to the authority contained in Title 5, *California Administrative Code*, Section 41201. The social security number will be used as a means of identifying records pertaining to the student as well as identifying the student for purposes of financial aid eligibility and disbursement and the repayment of financial aid and other debts payable to the institution.

Undergraduate Application Procedures

Prospective undergraduates, whether applying for part-time or full-time programs of study, in day or evening classes, must file a complete application including all the required forms and fees as described in the application booklet. The \$20.00 non-refundable application fee should be in the form of a check or money order payable to The California State University and Colleges. Undergraduate applicants may file only at their first choice campus. An alternative choice campus and major may be indicated on the application, but *an applicant should list as alternate campus only that campus of The California State University and Colleges that he or she will attend if his or her first choice campus cannot accommodate him or her*. Generally, an alternate degree major will be considered at the first choice campus before an application is redirected to an alternate choice campus. Applicants will be considered automatically at the alternate choice campus if the first choice campus cannot accommodate them. *Transcripts and other supporting documents should not be submitted until requested by the campus.*

Graduates of California State University, Hayward

Students graduating with a bachelor's degree from CSUH who wish to continue in post-baccalaureate, graduate, credential, or second baccalaureate status must apply for readmission through the Office of Admissions and pay the \$20.00 application fee.

Students graduating with a master's degree from CSUH who wish to continue without interruption in post-baccalaureate, graduate, credential, or second baccalaureate status must apply for readmission through the Office of Admissions but are not required to pay an additional application fee.

Declaration of Objective

At the time of applying for admission, each undergraduate student is requested to state an objective (major and degree) to be pursued at this University. After the student has declared a specific objective and has been admitted to the University, faculty advisory services are available to assist the student in attaining his or her goal, but the responsibility for meeting the specific requirements rests with the student. An undergraduate student may also be admitted as an "Undeclared Major."

Locally and Systemwide Impacted Programs

Most undergraduate applications are accepted for consideration at the first choice campus in the first choice major. However, quotas have become necessary in a few majors at some campuses where more applications are received during the first month of the filing period than can be accommodated. In those programs, only applications received during the first month of any filing period will be accepted for consideration. *Applicants for impacted programs must apply during the first month of any filing period.* Supplementary screening criteria are used to determine which applications will be allocated space in impacted programs. Campuses may consider hardship appeals from applicants.

Locally Impacted Programs

Supplementary screening criteria are used to determine which applications will be allocated space at the first choice campus and which will be considered at the same campus in an alternate major or redirected to an alternate campus where the program is not impacted. In categories for first-time freshmen and lower division transfers with fewer than 18 transferable quarter units, at least half of the available space will be reserved for the most highly qualified applicants based on previous academic performance as measured by the Eligibility Index. High school grade point averages based on all grades earned after the 9th grade (except those in P.E. and military science) as reported by applicants on the application, and test scores received by the campus no later than the end of the first month of the filing period* will be used to compute the Eligibility Index. Remaining space may be allocated on the basis of self-declared GPA, test scores or other criteria. Campuses using other criteria will advise affected applicants of those criteria. Space in categories for transfer students with 18 or more transferable quarter units may be allocated on the basis of self-declared GPA or other criteria. Campuses using other criteria will advise affected applicants of those criteria.

Systemwide Impacted Programs

These are programs where applications received throughout the system exceed the total available spaces in the system. Unlike unaccommodated applicants to locally impacted programs who may be redirected to another campus in the same major, unaccommodated applicants to systemwide impacted programs *may not be redirected in the same major* but may choose an alternate major either at the first choice campus or another campus. Details about the supplementary admission criteria to be used by campuses will be sent all applicants under consideration, when requested.

Post-Baccalaureate Application Procedures

All applicants for any type of post-baccalaureate status (e.g., master's degree applicants, those seeking credentials, and those interested in taking courses for professional growth) must file a complete application within the appropriate filing period. *Second baccalaureate degree candidates should apply as undergraduate degree applicants. Persons seeking a second master's degree must have the approval of the Dean of Graduate Studies* (see page 106 for regulations). A complete application for post-baccalaureate status includes all of the materials required for undergraduate applicants plus the supplementary graduate admissions application. Post-baccalaureate applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the \$20.00 non-refundable application fee. Since applicants for post-baccalaureate programs may be limited to the choice of a single campus on each application, redirection to alternative campuses or later changes of campus choice will be minimal. In the event that a post-baccalaureate applicant wishes to be assured of initial consideration by more than one campus, it will be necessary to submit a separate application (including fee) to each. Applications may be obtained from the Admissions Office of any California State University or College campus.

* Applicants to impacted programs or campuses should make every effort to take the SAT or ACT at the earliest date. However, the inability of Fall 1978 applicants to supply test scores by December 1, 1977, will not jeopardize their admission priority.

Application Filing Periods

Terms in 1978-79	First Accepted	Filing Period Duration	Student Notification Begins
Summer Qtr. 1978	Feb. 1, 1978	Each campus accepts applications until capacities are reached. Most campuses accept applications up to a month prior to the opening day of the term. Some campuses will close individual programs as they reach capacity.	March 1978
Fall Sem. or Qtr. 1978	Nov. 1, 1977		Dec. 1977
Winter Qtr. 1979	June 1, 1978		July 1978
Spring Sem. or Qtr. 1979	Aug. 1, 1978		Sept. 1978

Semester Calendar

Chico	San Diego
Fresno	San Francisco
Fullerton	San Jose
Long Beach	Sonoma
Northridge	Stanislaus*
Sacramento	

Quarter Calendar

Bakersfield	Cal Poly, Pomona**
Dominguez Hills	San Bernardino
Hayward**	Cal Poly, San Luis Obispo**
Humboldt	
Los Angeles**	

Initial Filing Period

All applications postmarked or received during the initial filing period, defined as the first month of the filing period, will be given equal consideration within established enrollment categories and limits. There is no advantage in filing before the initial filing period. Applications received before the initial filing period may be returned, causing a delay in processing. With the exception of the impacted undergraduate program areas (including architecture, natural resources, nursing, and physical therapy) most campuses will be accepting applications well into the extended filing periods or until limits are met.

Space Reservation Notices

Most applicants will receive some form of space reservation notice from their first choice campus within two months of filing the application. A notice that space has been reserved is also a request for records necessary to make the final admission decision. It is an assurance of admission *only* if evaluation of the applicant's previous academic record indicates that admission requirements have been met. Such a notice is not transferable to another term or to another campus.

Redirection

Applications of students who cannot be accommodated at their first choice campus will automatically be redirected to their second choice, and, if they cannot be accommodated there, to their third choice, etc., unless the applicant is seeking admission to a systemwide impacted program.

Hardship Petitions

There are established procedures for consideration of qualified applicants who would be faced with extreme hardship if not admitted. Prospective hardship petitioners should write the Admissions Office regarding specific policies governing hardship admission.

* The Stanislaus campus is on a modified semester plan, with an "early" fall semester, concluding before the December holidays, an interim term of one month, and a regular spring semester.

** Campuses which have four regular quarters. Summer quarter enrollment, eligibility and fees are the same as other quarters.

Extended Filing Period

Campuses not filling category limits during the initial filing period will continue to accept applications during the extended filing period. Application priority within the extended period will be granted in chronological order of application receipt by the campuses.

NOTE: The University reserves the right to determine whether a transcript will be accepted as official. All transcripts and records submitted for admission or readmission become the property of the University and cannot be returned to the applicant or forwarded to another institution except in cases of redirection within The California State University and Colleges system.

Failure to declare enrollment in and file official transcripts from each college or university attended will constitute grounds for denial of admission, readmission, or dismissal from the University.

Transcripts from Other Institutions

Recipients of space reservation from California State University, Hayward will be requested to submit test scores and/or transcripts. It is the applicant's responsibility to see that official transcripts required are sent *directly* from the previous institutions attended (two copies from each for undergraduate transfer and graduate students). No evaluation nor determination of eligibility is possible until all documents are received.

1. **First-time freshmen** are required to submit transcripts of high school work and scores from the ACT or SAT examinations. Applicants still in attendance at high school should submit transcripts of work through the first semester of the 12th grade.
2. All **undergraduate transfer** applicants and all **graduate and post-baccalaureate level** applicants must submit two official transcripts from each college or university previously attended, regardless of length of attendance and even if no work was completed. Trade, technical and professional school records are not required.
3. Applicants as **transfer students** with **less than 84 transferable** quarter units (56 semester units) must, in addition to 2., above, file one official transcript showing grades earned during the last three years of high school and scores from the ACT or SAT examinations.
4. Applicants to certain graduate degree programs may also be required to submit letters of recommendation and certain specialized test scores. Specific information may be obtained from this catalog under the heading of the particular department.

High School Students

Students still enrolled in high school will be considered for enrollment in certain special programs if recommended by the principal and if preparation is equivalent to that required of eligible California high school graduates. Such admission is only for a given program and does not constitute the right to continued enrollment.

Admission of Post-Baccalaureate and Graduate Students

Post-Baccalaureate Standing. Unclassified.

For admission to unclassified post-baccalaureate standing, a student must: (a) hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association or have completed equivalent academic preparation as determined by an appropriate campus authority; (b) have attained a grade point of at least 2.5 (on a five-point scale) in the last 60 semester (90 quarter) units attempted; and (c) have been in good standing at the last college attended. Post-baccalaureate applicants are required to submit official transcripts *showing the degree posted*. Admission to a State University or College with post-baccalaureate unclassified standing does not constitute admission to graduate degree curricula.

Post-Baccalaureate Standing. Classified.

A student who is eligible for admission to a California State University or College in unclassified standing may be admitted to classified post-baccalaureate standing for the purpose of enrolling in a particular post-baccalaureate credential or certificate program, provided that such additional professional, personal, scholastic, and other standards, including qualifying examinations, as may be prescribed for the particular program by the appropriate campus authority, are satisfied.

Graduate Standing. Conditionally Classified.

A student eligible for admission to a California State University or College under unclassified post-baccalaureate standing above, but who has deficiencies in prerequisite preparation which in the opinion of the appropriate campus authority can be met by specified additional preparation, including qualifying examinations, may be admitted to an authorized graduate degree curriculum with conditionally classified graduate standing.

Graduate Standing. Classified.

A student who is eligible for admission to a California State University or College in unclassified or conditionally classified standing may be admitted to an authorized graduate degree curriculum of the campus as a classified graduate student if he or she satisfactorily meets the professional, personal, scholastic, or other standards for admission to the graduate degree curriculum, including qualifying examinations, as the appropriate campus authority may prescribe. Only those applicants who show promise of success and fitness will be admitted to graduate degree curricula, and only those who continue to demonstrate a satisfactory level of scholastic competence and fitness shall be eligible to proceed in such curricula.

UNDERGRADUATE ADMISSION REQUIREMENTS

First-time freshman eligibility is governed by an eligibility index. The index is computed using the high school grade point average on all course work completed in the last three years of high school, exclusive of physical education and military science; and the ACT composite, or the SAT total score. The full table of grade point averages, with corresponding test scores and the equation by which the index is computed, is reproduced on p. 45. Test results of either the CEEB Scholastic Aptitude Test (SAT) or the American College Testing Program examination (ACT) are acceptable in establishing eligibility.

Registration forms and test dates for either test may be obtained from school or college counselors, from the addresses below, or from the campus testing offices. For either test, submit the registration form and fee at least one month prior to the test date.

<i>ACT Address</i>	<i>SAT Address</i>
American College Testing Program, Inc. Registration Unit, P.O. Box 168 Iowa City, Iowa 52240	College Entrance Examination Board P.O. Box 592 Princeton, New Jersey 08540

First-Time Freshman Applicants (California High School Graduates and Residents)

Applicants who are graduates of a California high school or legal residents for tuition purposes must have an eligibility index which places them among the upper one-third of California high school graduates. The minimum index is 741 (ACT) or 3072 (SAT). The following table illustrates grade point averages and test scores needed to qualify for admission.

EXCERPTS FROM ADMISSIONS ELIGIBILITY TABLE FOR CALIFORNIA HIGH SCHOOL GRADUATES

G.P.A.	2.00*	2.20	2.40	2.60	2.80	3.00	3.20**
A.C.T. Score	35	31	27	23	19	15	11
S.A.T. Score	1472	1312	1152	992	832	672	512

* Below 2.00 not eligible.

** Above 3.20 eligible with any score.

First-Time Freshman Applicants (Non-resident)

The admission requirements for non-resident applicants are higher than those for California residents. Applicants who are neither residents for tuition purposes nor graduates of a California high school must have an eligibility index which places them in the upper *one-sixth* of California high school graduates. The minimum index for such students is 826 (ACT) or 3402 (SAT).

First-Time Freshmen (graduates of secondary schools, etc., in foreign countries)

An applicant who is a graduate of a secondary school in a foreign country or who has equivalent preparation in a foreign country, may be admitted as a first-time freshman if his or her preparation and ability are such that in the judgment of the appropriate campus authority, the probability of his or her academic success at the campus is equivalent to that of eligible California high school graduates.

First-Time Freshmen (high school non-graduates)

An applicant who is over 18 years of age, but who has not graduated from high school will be considered for admission only when preparation in all other ways is such that the campus believes promise of academic success is equivalent to that of eligible California high school graduates.

Undergraduate Transfer Applicants (Resident and Non-resident)

Transfer admission eligibility is based on TRANSFERABLE college units attempted, rather than on *all* college units attempted. California Community College transfers should consult their college counselors for information on transferability of courses. Applicants in good standing at the last college attended may be admitted as undergraduate transfers if they meet either of the following requirements:

1. Eligible for admission in freshman standing (see freshman requirements) with a G.P.A. of "C" (2.0 on a scale where A = 4.0) or better in all transferable college units attempted.
2. Completed at least 56 transferable semester units or 84 transferable quarter units with a G.P.A. of "C" (2.0 on a scale where A = 4.0) or better if a California resident; non-residents must have a G.P.A. of 2.40 or better.

Institutions not fully accredited will not be used in determining admission eligibility nor will they normally be used to meet graduation requirements. However, after completing 30 quarter units in residence, a student may petition to have such units accepted for baccalaureate credit. Petitions will be considered in light of course content, the quality of performance, the nature of the institution, and the appropriateness of the courses to the CSUH curriculum.

Credits earned in accredited community colleges will be evaluated by the Office of Admissions and Records in accordance with the following provisions:

1. not more than 105 quarter (70 semester) units of credit may be allowed for community college work; community college credit earned after the student has earned 105 quarter units at one or more community colleges will be used for determining grade point average and *may* be used to satisfy subject requirements, but *may not* be applied toward the total units required for the bachelor's degree;
2. no credit may be allowed for professional courses in education taken in a community college, other than an introduction to education course.
3. California State University, Hayward and California community colleges have written agreements relative to equivalency of courses; students planning to transfer to CSUH should consult their community college counselors if they have questions about transfer courses.
4. certification of the extent of completion of the General Education Breadth Requirements may be submitted by the California community college from which the student is transferring. Students who submit a partial general education certificate will be evaluated according to current certification agreements with the community colleges.

Eligibility Index

The following chart is used in determining the eligibility of graduates of California high schools (or California legal residents) for freshman admission to a CSUC campus. Grade point averages are based on work completed in the last three years of high school, exclusive of physical education and military science. Scores shown are the SAT Total and the ACT Composite.

Eligibility Table for California Residents

ADMISSIONS TABLE FOR CALIFORNIA HIGH SCHOOL GRADUATES OR CALIFORNIA LEGAL RESIDENTS

GPA	ACT Score	SAT Score	GPA	ACT Score	SAT Score	GPA	ACT Score	SAT Score
(—)*			2.80	19	832	2.39	27	1160
3.20	11	512	2.79	19	840	2.38	27	1168
3.19	11	520	2.78	19	848	2.37	27	1176
3.18	11	528	2.77	19	856	2.36	27	1184
3.17	11	536	2.76	19	864	2.35	28	1192
3.16	11	544	2.75	20	872	2.34	28	1200
3.15	12	552	2.74	20	880	2.33	28	1208
3.14	12	560	2.73	20	888	2.32	28	1216
3.13	12	568	2.72	20	896	2.31	28	1224
3.12	12	576	2.71	20	904	2.30	29	1232
3.11	12	584	2.70	21	912	2.29	29	1240
3.10	13	592	2.69	21	920	2.28	29	1248
3.09	13	600	2.68	21	928	2.27	29	1256
3.08	13	608	2.67	21	936	2.26	29	1264
3.07	13	616	2.66	21	944	2.25	30	1272
3.06	13	624	2.65	22	952	2.24	30	1280
3.05	14	632	2.64	22	960	2.23	30	1288
3.04	14	640	2.63	22	968	2.22	30	1296
3.03	14	648	2.62	22	976	2.21	30	1304
3.02	14	656	2.61	22	984	2.20	31	1312
3.01	14	664	2.60	23	992	2.19	31	1320
3.00	15	672	2.59	23	1000	2.18	31	1328
2.99	15	680	2.58	23	1008	2.17	31	1336
2.98	15	688	2.57	23	1016	2.16	31	1344
2.97	15	696	2.56	23	1024	2.15	32	1352
2.96	15	704	2.55	24	1032	2.14	32	1360
2.95	16	712	2.54	24	1040	2.13	32	1368
2.94	16	720	2.53	24	1048	2.12	32	1376
2.93	16	728	2.52	24	1056	2.11	32	1384
2.92	16	736	2.51	24	1064	2.10	33	1392
2.91	16	744	2.50	25	1072	2.09	33	1400
2.90	17	752	2.49	25	1080	2.08	33	1408
2.89	17	760	2.48	25	1088	2.07	33	1416
2.88	17	768	2.47	25	1096	2.06	33	1424
2.87	17	776	2.46	25	1104	2.05	34	1432
2.86	17	784	2.45	26	1112	2.04	34	1440
2.85	18	792	2.44	26	1120	2.03	34	1448
2.84	18	800	2.43	26	1128	2.02	34	1456
2.83	18	808	2.42	26	1136	2.01	34	1464
2.82	18	816	2.41	26	1144	2.00	35	1472
2.81	18	824	2.40	27	1152	(—) †		

* Students earning grade-point averages above 3.20 are eligible for admission.

† Students earning grade-point averages below 2.0 are not eligible for admission.

Students with a given G.P.A. must present the corresponding test score. Conversely, students with a given ACT or SAT score must present the corresponding G.P.A. in order to be eligible.

The minimum eligibility index is: SAT = 3072 and ACT = 741. The index is computed either by multiplying the grade point average by 800 and adding it to the total SAT score, or multiplying the grade point average by 200 and adding it to 10 times the composite ACT score.

Admission of Veterans

Veterans of the U.S. Armed Forces who are California residents but who do not meet normal entrance requirements may be considered for admission if in the judgment of CSUH authorities the veteran has the potential to perform satisfactorily on the collegiate level. In order to be considered under this provision, the veteran must have served 181 days active duty since 1955 with a discharge or separation under conditions other than dishonorable.

Veterans wishing to be considered under this provision should accompany their regular application for admission with supporting documents, including separation papers (DD 214), and a letter petitioning for special consideration.

Post-baccalaureate and Graduate Students: Veterans who meet the admission requirements on pages 42 and 43 may attend under full benefits extended to veterans. Information concerning veterans' programs can be obtained from the Office of Veterans' Affairs.

Application for Readmission

All former students of California State University, Hayward who have not registered for two or more consecutive quarters must apply for readmission and be admitted through the normal admissions process before they will be allowed to register. The summer quarter is a regular term and is counted when determining continuing student status. At the same time, they must submit official transcripts from each institution attended since leaving the University. Students who have been enrolled only in Summer Session, in Extension courses or in extension concurrent enrollment must follow the regular admission procedures for new students.

Admission of Summer Session Students

Students who wish to enroll only for Summer Session and not Summer Quarter courses are not required to file a formal application for admission to the University or to file transcripts. Students are required to satisfy the prerequisites for the particular courses in which they enroll. See also, *Summer Session*, page 23.

Educational Opportunity Program

An applicant for admission who is not otherwise eligible for admission to the University may be considered for admission as a first-time freshman or lower-division transfer student, provided the student is from a low-income family and has been identified as having the potential to perform satisfactorily on the collegiate level. The University's Intercultural Education and Resources Center provides assistance to students admitted to the Educational Opportunity Program. Educational clearinghouses, high schools, colleges, and other agencies assisting Educational Opportunity Program applicants should advise students applying to this program to forward applications and other materials to the Admissions and Records Office.

Educational Opportunity Program applications will be reviewed and selection of applicants will be made based on the University's determination that selected applicants evidence sufficient potential to perform college level work.

Admission as a Foreign Student

Each applicant must file a completed application together with the application fee, a financial statement, and the necessary transcripts from each educational institution previously attended. Submission of the Test of English as a Foreign Language (TOEFL) score is required. TOEFL replaces the ACT or SAT as an admission requirement for foreign students. Separate deadlines are in effect for foreign students and will be strictly observed. Inquiries should be directed to the Admissions Office.

Admission of students who have not attended U.S. institutions is based upon demonstration of preparation equivalent to that which is required of California residents.

Applicants from outside of the U.S. may be notified to contact a representative of one of the several bi-national organizations for the purpose of an interview. The results of the interview will be forwarded to the CSUH Admissions Office, and will be used in determining eligibility for admission.

Transfer foreign students from other U.S. educational institutions must follow the above requirements with the exception of the requirement for the Overseas Interview. Transfer foreign students will follow the regular admissions procedure as directed under *Admission as an Undergraduate Transfer*, page 44.

Foreign students applying from outside the U.S. will be admitted in the fall quarter only. Those transferring from other U.S. institutions may apply for any quarter subject to limitations of space at CSUH. Separate deadlines are in effect for foreign students and will be strictly observed. Inquiries should be directed to the Admissions Office.

Graduate foreign students applying from outside the U.S. follow the procedures as outlined above for overseas applicants. *Graduates of U.S. educational institutions* must meet the foreign student transfer requirements as listed above. All applicants for Graduate Standing also must meet the admission requirements for graduate students given below. Foreign student graduate applicants must apply for and be admitted to a specific graduate program. They may not register in unclassified post-baccalaureate status.

Admission of Graduate Foreign Students

Graduate foreign students seeking admission from outside the U.S. must file a completed application for admission, a statement of residence, a financial statement, the application fee, and two transcripts from each college previously attended. Graduate foreign students must declare an objective and be admitted into a Master's degree or credential program prior to acceptance into California State University, Hayward. Submission of the Test of English as a Foreign Language (TOEFL) score is required before the student's application will be evaluated.

Transfer graduate foreign students from other U.S. educational institutions must take the TOEFL, and file a financial certificate.

All applicants for Graduate Standing must satisfy the requirements listed under the heading of Post-baccalaureate and Graduate Admission Requirements on page 42. In addition, applicants are advised to consult the department office to determine if there are additional requirements (e.g., GRE, GMAT Test results) for admission to the graduate program.

Certification of Foreign Students

Students on a student visa are required by the Immigration Service to carry a minimum study load of 12 "weighted" quarter units per quarter as graduates. In computing weighted units, graduate units (5000 through 6000 level courses), whether taken alone or in combination with undergraduate units, are given a 1.5 weighted measurement. For example, three undergraduate units ($3 \times 1 = 3$) plus six graduate units ($6 \times 1.5 = 9$) or 8 graduate units ($8 \times 1.5 = 12$) would total 12 weighted units, or full time.

When enrolled at CSUH, they are expected to comply with all regulations of the Immigration Service as well as those of the University.

Admission with Honors

First-Time freshmen. Admission with Honors is conferred on a student whose high school G.P.A. is at least a 3.50 counting all subjects used to determine admissibility beginning with the tenth grade and including at least the fall semester of the senior year.

Lower-division transfers. Admission with Honors is conferred on a student whose high school record is at least that of a first-time freshman receiving honors. In addition, the student must have a combined all-college G.P.A. in transferable courses of at least a 3.50 based on work completed, where not more than one term remains to be completed prior to actual enrollment.

Upper-division transfers. Admission with Honors is conferred on a student whose combined all-college G.P.A. is at least a 3.50 based on work completed where not more than one term remains to be completed prior to actual enrollment.

Admission to Public School Credential Programs

Admission to the credential programs in teacher education, school administration and supervision, and pupil personnel services is based upon criteria established by the School of Education. See individual department listings for criteria which will be used in admitting students to programs.

Admission as Unclassified Post-Baccalaureate Student

Students who meet the requirements on page 44 may take courses for credit as room in the course permits. Such work does not apply toward degree credit unless accepted as such by the major department after formal admission to a specific degree program has been applied for and approved. Admission to Unclassified Post-Baccalaureate status does not guarantee or imply admission to a graduate degree program or to a credential program.

Statement of Residence

An official statement of residence, which is part of the official California State University and Colleges common application form, must be completed and filed by each student with the application for admission or readmission. These statements may not be completed by another person. Final decisions relative to residence status will be made by the CSUH attorney and will be based upon the residence laws of the State of California. Students will be held responsible for reporting any changes which affect their residence classification.

Determination of Residence for Nonresident Tuition Purposes

New and returning students of The California State University and Colleges are classified for the purpose of determining the residence of each student for nonresident tuition purposes. The Residence Questionnaire and, if necessary, other evidence furnished by the student is used in making these determinations. A student may not register and enroll in classes until his or her Residence Questionnaire has been received by the Admissions Office.

The following statement of the rules regarding residency determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residence determination for tuition purposes by The California State University and Colleges is found in *Education Code* Sections 68000-68090, 90403, 89705-89707.5 and 68122, 68124 and 68121, and in Title 5 of the *California Administrative Code*, Article 4 (commencing with Section 41900) of Subchapter 5 of Chapter 1, Part V. A copy of the statutes and regulations is available for inspection at the campus Admissions Office.

Legal residence may be established by an adult who is physically present in the state while, at the same time, intending to make California one's permanent home. Steps must be taken at least one year prior to residence determination date to evidence the intent to make California the permanent home with concurrent relinquishment of the prior legal residence. Some of the relevant indicia of an intention to establish and maintain California residence are registering to vote and voting in elections in California; satisfying resident California state income tax obligations on total income; ownership of residential property or continuous occupancy or letting of an apartment on a lease basis where one's permanent belongings are kept; maintaining active resident memberships in California professional or social organizations; maintaining California vehicle plates and operator's license; maintaining active savings and checking accounts in California banks; maintaining permanent military address and home of record in California if one is in the military service, etc.

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

In general, the unmarried minor (a person under 18 years of age) derives legal residence from his/her parents, or, in the case of permanent separation of the parents, from the parent with whom the minor maintains his/her place of abode. The residence of a minor cannot be changed by act of the minor or that of the minor's guardian, so long as the minor's parents are living.

A man or a woman may establish his or her residence; marriage is not a governing factor.

The general rule is that a student must have been a California resident for at least one year immediately preceding the residence determination date in order to qualify as a "resident

student" for tuition purposes. A residence determination date is set for each academic term and is the date from which residence is determined for that term.

The residence determination dates for the 1978-79 academic year are:

Quarter Term Campuses

Fall: September 20
Winter: January 5
Spring: April 1
Summer: July 1

Semester Term Campuses

Fall: September 20
*Winter: January 5
Spring: January 25

If you have any questions respecting the applicable date, the campus Admissions Office can give you the residence determination date for the term for which you are registering.

There are several exceptions for nonresident tuition. Some of the exceptions provide for:

1. Persons below the age of 19 whose parents were residents of California but who left the state while the student, who remained, was still a minor. When the minor reaches age 18, the exception continues for one year to enable the student to qualify as a resident student.
2. Persons below the age of 19 who have been present in California for more than a year before the residence determination date, and entirely self-supporting for that period of time.
3. Persons below the age of 19 who have lived with and been under the continuous direct care and control of an adult, not a parent, for the two years immediately preceding the residence determination date. Such adult must have been a California resident for the most recent year.
4. Dependent children and spouses of persons in active military service stationed in California on the residence determination date. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year. The exception, once attained, is not affected by transfer of the military person directly to a post outside the 50 states and District of Columbia.
5. Military personnel in active service stationed in California on the residence determination date for purposes other than education at state-supported institutions of higher education. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year.
6. A student who is an adult alien is entitled to residence classification if the student has been lawfully admitted to the United States for permanent residence in accordance with all applicable provisions of the laws of the United States; provided, however, that the student has had residence in California for more than one year after such admission prior to the residence determination date. A student who is a minor alien shall be entitled to residence classification if both the student and the parent from whom residence is derived have been lawfully admitted to the United States for permanent residence in accordance with all applicable laws of the United States, provided that the parent has had residence in California for more than one year after acquiring such permanent residence prior to the residence determination date of the term for which the student proposes to attend the University.
7. Certain refugees. Certain alien graduates of California public high schools.
8. Certain credentialed, full-time employees of school districts.
9. Full-time State University and Colleges employees and their children and spouses. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year.
10. Certain exchange students.
11. Children of deceased public law enforcement or fire suppression employees, who were California residents, and who were killed in the course of law enforcement or fire suppression duties.
12. A person in continuous full-time attendance at an institution who had resident classification on May 1, 1973, shall not lose such classification as a result of adoption of the uniform student residency law on which this statement is based, until the attainment of the degree for which currently enrolled.

Any student, following a final decision on campus on his or her residence classification, may

* Applies only to winter term in Stanislaus.

make written appeal to:

The California State University and Colleges
Office of General Counsel
400 Golden Shore
Long Beach, California 90802

within 120 calendar days of notification of the final decision on campus of his or her classification. The Office of General Counsel may make a decision on the issue, or it may send the matter back to the institution with instructions for a further review on campus. Students classified incorrectly as residents or incorrectly granted an exception from nonresident tuition are subject to reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Title 5 of the *California Administrative Code*. Resident students who become nonresidents, and nonresident students qualifying for exceptions whose basis for so qualifying changes, must immediately notify the Admissions Office. Applications for a change in classification with respect to a previous term are not accepted.

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

Health Data

All new students and those pursuing a basic standard teaching credential, or a master's degree, or planning to enter the student teaching or credential programs of CSUH must have a Student Health Record on file in the Student Health Services office. The Student Health Record is sent to the student at the time of acceptance. This record includes a health history which the student *must complete*. Included in the Health History must be a written confirmation of a negative tuberculin test or chest X-ray within the previous year.

The completed Student Health Record should be mailed in advance to the Student Health Center or presented at the time of registration. Returning and continuing students who have previously submitted a health record are not required to submit a new health record.

Cancellation of Admission

A student who is accepted for admission to CSUH for a given quarter and does not register, must reapply for admission. A subsequent application for admission must be in accordance with current admission requirements. Transcripts, test scores, and evaluations on file may be used with the new application (such documents are maintained for only two years). An application fee must be submitted with each new application for admission.

Credit for Extension and Correspondence Work

A maximum of 36 quarter (24 semester) units of extension and correspondence work may be counted toward graduation at California State University, Hayward. Any such units not earned at CSUH must be in courses which would be acceptable in CSUH baccalaureate degrees and must come from accredited institutions which would accept the units toward their own degrees.

No extension or correspondence credit may be applied toward the residency requirement for undergraduates. All extension and correspondence work will be used for determination of the grade point average; for graduates, only those courses approved by the department toward graduate credit will apply. Courses taken in concurrent enrollment with the CSUH Office of Continuing Education are eligible to exception of regulations governing other extension work.

Credit for Experience

No unit credit is allowed toward the bachelor's or master's degrees for practical experience. An exemption allowed for experience will not carry units of advanced standing nor diminish the number of units required for graduation. See also, *Credit by Examination and Independent Study*.

Credit for Military Training and USAFI

CSUH grants credit for military training in accordance with the recommendation of the American Council on Education. Students who entered the military service before meeting the usual requirements for graduation may receive nine units of elective credit toward the baccalaureate degree based upon the completion of a minimum of one year of uninterrupted active service. Commissioned officers may receive an additional nine units which may be considered upper division credit. In order to receive such credit the student must present evidence by written certification from a recognized military authority, such as papers from a military separation center or an official copy of a diploma from a service school or USAFI transcript.

Advanced Placement

California State University, Hayward grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement Program of the College Entrance Examination Board. Students who present scores of three or better will be granted nine quarter units of college credit. (See page 68.)

College Level Examination Program (CLEP)

See page 69.

Career Placement Information

The campus may furnish, upon request, information concerning the subsequent employment of students who graduate from programs or courses of study which have the purpose of preparing students for a particular career field. This information includes data concerning average starting salary and the percentage of previously enrolled students who obtained employment. The information provided may include data collected from either graduates of the campus or graduates of all campuses in The California State University and Colleges. Interested prospective students may request copies of the published information from the Dean of Students' Office, AD 959.

Intrasystem Concurrent Enrollment

Students enrolled at any campus of The California State University and Colleges may apply to attend another campus while concurrently enrolled at their home campuses. Policies and procedures for Intrasystem Concurrent Enrollment are as follows:

Eligibility Requirements:

Undergraduate

1. Student has completed at least one term at the home campus as a matriculated student and earned at least 12 units there.
2. Student has attained a grade point average of 2.0 in all work completed at the home campus and is in good standing at that campus.

Graduate

1. The student has completed at least one term at the home campus as a matriculated student or will be enrolled concurrently in such status.
2. The student has been admitted to or is enrolled in an authorized graduate program at the home campus.
3. The student was in good standing at the last college attended.

Enrollment Conditions:

1. Approval of concurrent enrollment is valid only for the term specified and is subject to space availability and registration priority policies at host campus.
2. Academic advisement is available only at the home campus.
3. Because of overlap in the academic terms of campuses on semester and quarter calendars, concurrent enrollment is possible only in certain combinations. Consult the Office of Admissions and Records concerning possible combinations. (Note: Although Summer quarter concurrent enrollment is not possible for students whose home campus is on a semester calendar or on a quarter calendar without a summer quarter, enrollment in

"visitor" status is possible. See Intrasytem Visitor Enrollment.)

4. Evidence of completion of course prerequisites may be required at the host campus (i.e., personal transcripts or grade reports).
5. Financial aid is available only through the home campus and students eligible for Veterans, Rehabilitation, Social Security, and other Federal, State, or County benefits must secure eligibility certification through the home campus.
6. Health services on host campus will be limited to treatment of emergencies.
7. Participation in student activities at the host campus is subject to any limitations which may exist at that campus. Similarly, student union facilities will be available according to policies at each campus.
8. Parking on the host campus will be available on the basis of a term fee within campus parking availability or on a daily fee basis.
9. Information concerning host campus identification card policies will be provided at registration.

Applications and further information for Intrasytem Concurrent Enrollment may be secured at the Admissions and Records Information lobby, AD 110.

Intrasytem Visitor Enrollment

Students of any campus of The California State University and Colleges may apply for admission as a visiting student at another campus for a period of one term. Policies and procedures are as follows:

Eligibility Requirements:

Undergraduate

1. Student has completed at least one term at the home campus as a matriculated student and earned at least 12 units there.
2. Student has attained a grade point average of 2.0 in all work completed at the home campus and is in good standing at that campus.

Graduate

1. The student has completed at least one term at the home campus as a matriculated student.
2. The student has been admitted to or is enrolled in an authorized graduate program at the home campus.
3. The student was in good standing at the last college attended.

Enrollment Conditions:

1. Approval will be for one term only and is subject to space availability and enrollment priority policies of the host campus.
2. To remain beyond this term a regular application must be filed.
3. "Visitor" status will not be approved if the terms overlap on home and host campuses. Students from any CSUC campus may seek approval for summer quarter Intrasytem Visitor Enrollment at one of the four campuses which have a full summer quarter: Hayward, Los Angeles, Pomona, San Luis Obispo.
4. Concurrent enrollment at another CSUC campus is not possible while in "visitor" status.
5. Financial aid is available to "visitors" only through the home campus and students eligible for Veterans, Rehabilitation, Social Security, and other Federal, State or County benefits must secure eligibility certification through the home campus.
6. All required fees must be paid at the time of "visitor" registration.
7. A record of credit earned at the host campus will automatically be sent to the home campus.
8. Evidence of completion of course prerequisites may be required at time of enrollment (i.e., personal transcript copy or grade reports).

Applications for Intrasytem Visitor Enrollment may be secured at the Admissions and Records Information Counter, AD 110.

Cross Registration Program with the University of California, Berkeley

The purpose of this program is to increase the educational opportunities of students by maximizing the use of existing programs and courses available in the East Bay region. Implementation of this program of cooperation is subject to the following conditions:

1. No course of instruction available to the student on his or her home campus may be taken in the other system.
2. A student on one campus may seek to enroll in a course offered at the other only upon the recommendation of his or her academic adviser and department chair on the home campus. These officers should insure the completion of any prerequisites before application is made. (Forms are available from the Office of the Director of Admissions and Records, AD 263.)
3. A student on one campus may seek to enroll in a course offered at the other only with the permission of the course instructor and the approval of the appropriate department chair and school/college dean of the host campus. Each campus gives first priority to its own students in registration and, hence, concurrent enrollment may not be available in courses with limited available spaces. A CSUH student returns the completed form and card(s) to 120 Sproul Hall.
4. A student must be in good standing, be matriculated for a degree (undergraduate or graduate) and have a substantial class load at the home campus in order to participate in the program.
5. Each campus will appoint a coordinator of the cooperative program whose function will be to verify the satisfaction of conditions 1-4 above for each prospective participating student. (The coordinator at CSUH is the Director of Admissions and Records.)
6. Under this agreement, coursework successfully completed by CSUH students will be considered as if taken in residence. No additional costs will be charged to the student by the host campus. However, the student will be billed at home campus rates for the total academic load in the combined registrations. If the total load exceeds 18 units, the student must file the proper petition which requires approval of the Dean of Undergraduate or Graduate Studies. Because of the interval involved in the sending of transcripts, there will be a time lag in the appearance of grades on the home campus permanent records.
7. Cross-registration is only possible in the Fall, Winter, and Spring quarters.
8. Cross-registration will be cancelled at any time if the student becomes ineligible for participation.

Cross Registration with Chabot College

A program has been established to permit students from CSUH and those from Chabot College to take coursework not available at their home campus at the other school. Eligibility requirements, limitations and other privileges or restrictions are available by contacting the Counseling Center at Chabot College or the Office of the Director of Admissions and Records at CSUH (AD 263).

ADVISING

ACADEMIC ADVISEMENT

Faculty Office Hours

The faculty of the University are available to students for consultation during regularly scheduled office hours. The times of the office hours are posted outside each faculty office and are also available in the faculty member's department office. Full-time faculty maintain a minimum of three office hours per week over at least three days of the week. Part-time lecturers maintain one office hour per week for each class of their teaching load.

Normal office hours are maintained during the Final Examination period. If a final examination conflicts with a posted office hour, an alternative hour is posted for that week alone. If, for any reason, a faculty member cannot meet the posted office hours, the department office is notified and the absence is noted on the office door for the information of students seeking the faculty member.

Consulting With An Adviser

Every student who enters CSUH is assigned a faculty adviser by the department or committee housing his or her major. Undeclared majors are assigned faculty advisers by the Office of the Dean of Undergraduate Studies. Students must check with the department office or the Office of the Dean during the orientation period of their first quarter in attendance.

A first-time freshman, during his or her first quarter of attendance at CSUH, should develop a program with his or her adviser which will satisfy all requirements (general education, major, and minor, or option if required) for the degree. An undergraduate transfer student, following receipt of the University's evaluation of previous college credit, should develop with the adviser a complete program of courses leading to the baccalaureate degree. This program should serve as a guide to the student throughout his or her university career and changes in program should not be made without the approval of the adviser.

For information on the catalog requirements under which a student may graduate, see page 92.

DEPARTMENTAL HONORS

The departmental honors programs, are upper-division programs designed to provide special courses and advanced, independent reading and research for superior students in the individual majors. Inquiries should be addressed to the chair of the department.

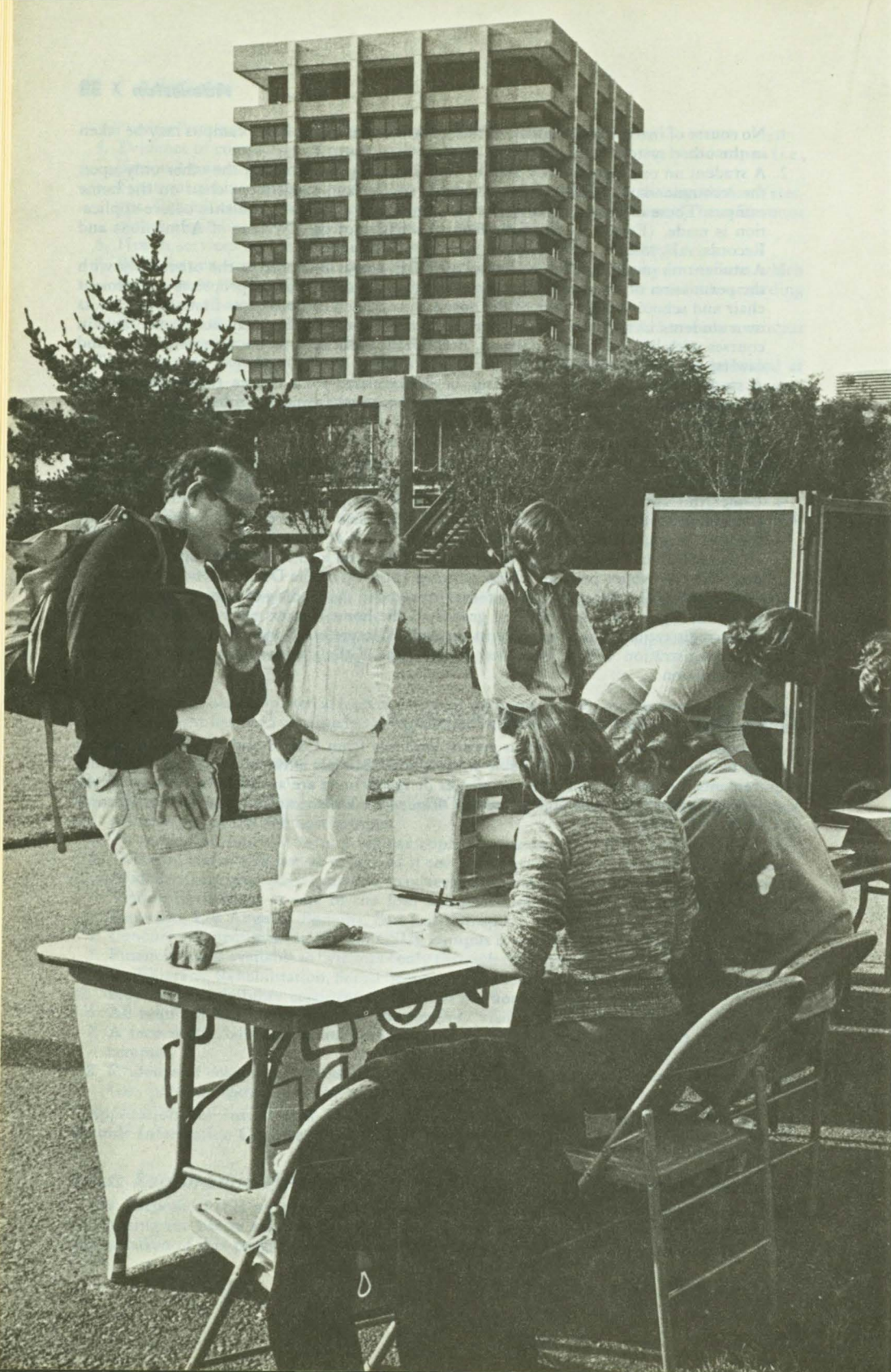
PRE-PROFESSIONAL TRAINING

Courses and programs offered in the various departments of the University are appropriate for entry into professional programs. Any student commencing work at California State University, Hayward with the intent of completing one's training at another university or professional school should work closely with the advisers so that the pattern of courses meets the general requirements of the profession, the specific requirements of the professional school of one's choice, and the CSUH requirements for a major and baccalaureate degree.

Pre-law Studies

The study of law is a post-graduate 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.

Students intending to enter law school commonly complete undergraduate majors in political science, economics, history, philosophy, English or business administration. However, any recognized nonvocational major is acceptable to law schools. 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 familiarity with at least the outlines of English history, and a



thorough knowledge of United States history. A sound knowledge of the elements of social science, including the principles of economics, political science, psychology, statistics, and sociology, is normally recommended. Many law schools highly recommend or require that students complete a college sequence in accounting and advise that they acquire the ability to use a typewriter.

Pre-law students should attempt to compile a college academic transcript in which there are few or no indications of withdrawals, incompletes, grade changes, or completion of courses on an ungraded (Credit/No Credit) basis. Since competition for available places in law schools is becoming increasingly intense, law school admissions committees also look to such indices as grades in advanced mathematics and science courses and in college-level language courses. Students planning on practicing law in California will often find completion of course work in Spanish language helpful in practice.

Most law schools have scholarships and other programs particularly designed for low-income students of ethnic minority background, and increasingly for women who have been underrepresented in the law. Pre-law students should acquire the latest edition of the *Pre-Law Handbook*, the official law school guide, at the University Bookstore. It contains detailed information on all accredited law schools, admissions standards and criteria, information about pre-law study and gaining acceptance into law school, and descriptive material dealing with the Law School Admissions Test (LSAT). It is recommended that students read the materials at the beginning of the *Handbook* before making any appointment with the pre-law adviser.

Students whose grade point, field of major study, or LSAT results are not favorable for law school admission should consult the pre-law bulletin board in Meiklejohn Hall for materials on newly-developing para-legal programs of study. Some of these are offered at law schools, others at business colleges or community colleges.

A cultural and social organization, the Blackstone Pre-Law Society, is open to all students interested in the law or in problems relating to law and society. In addition to the collection of law school catalogs maintained for reference by the University Library, the Blackstone Society has a collection housed in Meiklejohn Hall, room 4090. Students planning to enter law school should consult the Department of Political Science about their major and baccalaureate degree.

Most accredited law schools require that applicants complete the Law School Admission Test prepared and administered by the Educational Testing Service, Princeton, New Jersey 08540. The LSAT is typically given in October, December, February, April and July at one or more testing centers in the Bay area. Pre-law students should write to the Educational Testing Service early in their final year of college for the bulletin of information and application forms for law school candidates. Copies of the materials can also be secured from the pre-law adviser in the Political Science Department or from the pre-law bulletin board opposite Meiklejohn 4103.

Standard application forms which must be used in applying for financial assistance or scholarships in law schools are also prepared by and distributed through the Educational Testing Service. The pre-law adviser has a limited number of copies, or they can be secured by mail from law schools at which scholarships or other aid is sought.

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. No major field is stipulated, but it is essential that students learn to speak and write English correctly and effectively. 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 men and ideas, the world of nature, and the world of human affairs. The majors most frequently recommended are English, history, and philosophy. Students planning to enter theological schools should consult the Department of Philosophy about their major and baccalaureate degree.

The Health Sciences

MEDICINE, DENTISTRY, AND VETERINARY SCIENCE

A student interested in entering medicine, dentistry, veterinary science, or allied health sciences (other than those listed on page 59) should register with the Pre-professional Health Sciences Committee at the Office of the Dean of Undergraduate Studies, Room AD 859, Administration Building.

Upon registration the student should pick up a listing of the undergraduate courses which meet the requirements and recommendations of the particular professional field selected. Evaluation forms for submission to instructors can also be obtained. These should be returned to the student's folder in the Dean's Office for use in preparing a composite letter. The Dean's Office will also direct the student to a *preprofessional adviser* to receive further information and individual counseling about meeting these requirements and applying for admission to professional schools. There are only a limited number of pre-professional advisers and priority is given to junior and senior students in securing appointments. The composite letter of recommendation, drafted by the pre-professional adviser 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 amount to a major in any case, therefore the student is free to select any major. Accordingly, in addition to the *preprofessional adviser*, each student must also select a *major adviser* 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 in an appropriate academic major. Many pre-medical 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.

CSUH is an official test center for both the Medical College Admission Test (MCAT) and the Dental Admission Test (DAT). The MCAT is administered twice yearly, in May and October, under the auspices of the Testing Service. Premedical students are urged to schedule this test for May of their Junior year.

The Dental Admission Test, required of all pre-dental students, may be taken by application in April or October. Pre-dental students should plan to take this test in April of their Junior year. Contact the Testing Service for further details.

Illustrative Programs for Preprofessional Programs

	MEDICINE		
	Units		
First Year	Fall	Wint.	Spr.
Biol. 1101, -2, -3. Foundations of Biological Science	5	5	5
*Chem. 1101, -2-3. General Chemistry.....	5	5	5
Engl. 1001. Expository Writing	4		
*Math. 1130. College Algebra		4	
*Math. 1300. Elementary Functions and Coordinate Geometry			4
	14	14	14

General Education or electives

*See department concerned for placement test prior to registration.

	Units		
	Fall	Wint.	Spr.
<i>Second Year</i>			
Chem. 2200. Quantitative Analysis	5		
Phys. 2701, -2, -3. Introductory Physics	4	4	4
Math. 1304. Calculus I	4		
Math. 1305. Calculus II		4	
Engl. 2030. Introduction to Critical Writing I		4	
Engl. 2040. Introduction to Critical Writing II			4
	—	—	—
	13	12	8
General Education or electives			
<i>Third Year</i>			
Biol. 3120. Principles of Genetics.....			4
Biol. 3140. Principles of Developmental Biology	4		
Chem. 3301, -2, -3. Organic Chemistry	5	5	5
	—	—	—
	9	5	9
Major, and General Education or electives			

Fourth Year
Completion of Major and General Education requirements and particular medical school requirements

DENTISTRY

<i>First Year</i>			
Biol. 1101, -2, -3. Foundations of Biological Science	5	5	5
Chem. 1101, -2, -3. General Chemistry	5	5	5
Engl. 1001. Expository Writing	4		
	—	—	—
	14	10	10
General Education or electives			
<i>Second Year</i>			
Phys. 2701, -2, -3. Introductory Physics	4	4	4
Biol. 3140. Principles of Developmental Biology	4		
Psych. 2000. General Psychology I			5
Engl. 2030 or 2040. Introduction to Critical Writing I or II	4		
	—	—	—
	12	4	9
General Education or electives			
<i>Third Year</i>			
Chem. 2301, -2. Survey of Organic Chemistry (4, 4) <i>or</i> Chem. 3301, -2, -3. Organic Chemistry	4	4	
Chem. 3400. Introductory Biochemistry			4
	—	—	—
	4	4	4
Major, and General Education or electives			

Fourth Year
Completion of Major and General Education requirements and particular dental school requirements

VETERINARY MEDICINE

	Units		
	Fall	Wint.	Spr.
<i>First Year</i>			
Biol. 1101, -2, -3. Foundations of Biological Science	5	5	5
*Chem. 1101, -2, -3. General Chemistry	5	5	5
Engl. 1001. Expository Writing	4		
Engl. 2030. Introduction to Critical Writing I		4	
	—	—	—
	14	14	10
General Education or electives			
<i>Second Year</i>			
Phys. 2701, -2, -3. Introductory Physics	4	4	4
Biol. 3120. Principles of Genetics.....		4	
*Math. 1130. College Algebra	4		
*Math. 1300. Elementary Functions and Coordinate Geometry			4
	—	—	—
	8	8	8
General Education or electives			
<i>Third Year</i>			
Chem. 2301, -2. Survey of Organic Chemistry	4	4	
Biol. 3140. Principles of Developmental Biology	4		
Biol. 3570. Comparative Vertebrate Anatomy		5	
Chem. 3400. Introductory Biochemistry			4
	—	—	—
	8	9	4
Major, and General Education or electives to prepare for G.R.E.			

Fourth Year
Completion of Major and General Education requirements

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. A B.S. Degree in Health Sciences, Option in Occupational Health, is offered in the School of Science. The Department of Nursing has a B.S. degree major. These programs are described in the alphabetical listing in this catalog. Please contact the appropriate departments and schools for additional information.

Pre-Engineering Studies

California State University, Hayward does not offer degrees in Engineering. Students attending CSUH who are interested in obtaining a degree in Engineering should register with the Pre-Engineering advisement coordinator at the Office of the Dean of the School of Science.

Nearly all of the lower division requirements of engineering programs at neighboring institutions may be satisfied by courses offered at CSUH. Students contemplating transfer elsewhere to complete engineering degree requirements should declare a major in Chemistry, Earth Sciences, Mathematics, Physics or Statistics, and an adviser will be assigned as soon as possible. They should also contact their potential transfer institution and verify the acceptability of course work to be completed here. The recommended courses are listed below.

CSUH and UC Berkeley have an agreement which allows CSUH students to enroll at UC Berkeley and receive credit for courses which are not available here. Thus our Pre-Engineering students may enroll in graphics courses offered at Berkeley subject to certain approvals (see p. 53 of this catalog).

* See department concerned for placement test prior to registration.

RECOMMENDED COURSES FOR ENGINEERING

	Units		
	Fall	Wint.	Spr.
First Year*			
Chem. 1101, -2, -3. General Chemistry	5	5	5
Math. 1304. Calculus I	4		
Math. 1305. Calculus II.....		4	
Math. 2304. Calculus III			4
Second Year*			
Phys. 1001, -2, -3. General Physics.....	5	5	5
Math. 1700. Elementary Computer Programming and at least two of the following:			
Math. 2101. Elements of Linear Algebra			
Math. 3331. Differential Equations I			
Math. 3701. Introduction to Algorithmic Processes			
Math. 4320. Vector Analysis			

Natural Resources

Students contemplating transferring to various programs in the School of Natural Resources at Humboldt State University can complete a number of the prerequisite courses at CSUH:

As the requirements differ among the various programs and may change from time to time, it is important to check with the appropriate department of Humboldt State about the current information. The following courses at California State University, Hayward serve as prerequisites for most of the Natural Resource majors: Biol. 1101-2-3, Chem. 1101-2-3, Math 1300, and either Physics 1001-2-3 or 2701-2-3.

* There are several other courses offered at CSUH which may be applicable to the lower-division requirements of engineering programs elsewhere. These include: Chem. 2200, Quantitative Analysis; Chem. 3301, -2, Organic Chemistry; Chem. 4511, Physical Chemistry Lecture; E.Sc. 2101, Physical Geology; Phys. 3000, Contemporary Physics; Stat. 3401, Introduction to Probability Theory; Stat. 3502, Statistical Inference I; and Stat. 3503, Statistical Inference II.

FEES AND EXPENSES**SCHEDULES OF FEES, 1978-79**

Legal residents of California are not charged tuition.

ALL STUDENTS

Application fee (non-refundable)
payable by check or money order at time application is made \$20.00

Registration fees (payable at the time of Registration)

	0-6.0 units	6.1 or more units
Fall and Winter Quarters		
Student Services Fee	\$38.00	\$48.00
Student Body Fee	7.00	7.00
Facilities Fee	2.00	2.00
	\$47.00	\$57.00

Spring and Summer Quarters

Student Services Fee	\$40.00	\$50.00
Student Body Fee	6.00	6.00
Facilities Fee	2.00	2.00
	\$48.00	\$58.00

Student Union Fee (Fall, Winter, Spring)..... \$5.00
(Summer)..... \$6.00

Photo I.D. (one-time fee) \$1.50

Extension Division \$23.50 per unit *

There is no nonresident tuition charged for Extension classes

Summer Session

Student Services Fee \$23.50 per unit
Student Body Fee 3.00 only

There is no nonresident tuition charged for Summer Session

Instructionally Related Activities Fee

This fee has been authorized by the Board of Trustees to begin in the Fall Quarter, 1978, and will not exceed \$10.00 per year. The exact figure was not available when this catalog went to press. Various cultural and athletic activities are supported by the fee.

Alan Pattee Scholarships

Children of deceased public law enforcement or fire suppression employees, who were California residents and who were killed in the course of law enforcement or fire suppression duties, are not charged fees or tuition of any kind at any California State University or College, according to the Alan Pattee Scholarship Act, *Education Code* Section 68121. Students qualifying for these benefits are known as Alan Pattee scholars. For further information contact the Office of Admissions and Records, which determines eligibility.

NONRESIDENTS (U.S. AND FOREIGN)

Nonresident tuition (in addition to other fees charged all students)

15 units or more, per term	\$570
Less than 15 units, per unit or fraction thereof.....	\$38
Per academic year **.....	\$1,710

Note: Fees are subject to change without advance notice.

* Unless otherwise stated in the Extension Catalog.

** Note: The total amount of nonresident tuition charged shall not exceed \$1,710 per academic year. The fee for the fourth quarter is \$570; thus the potential annual fee is \$2,280 for nonresidents in attendance all four quarters.

No fees of any kind shall be required of or collected from those individuals who qualify for such exemption under the provisions of the Alan Pattee Scholarship Act.

Other Costs (payable when service is rendered)

A. Late Registration fee	\$5.00
B. Failure to meet administratively-required appointment or time limit	2.00
C. Diploma fee	4.50
D. Graduation exercise fee ¹	3.00
E. Returned check	5.00
F. Parking fee per quarter ²	10.00
G. Official transcript of record	1.00
H. Items lost or broken	Cost
I. Test fees	Cost
J. Laboratory and/or activity fee	Cost †

Refund of Fees

Fees may be refunded only as authorized by Sections 41802, 41803, and 41913 of Title 5, *California Administrative Code*. Whether a fee may be refunded and the circumstances under which a fee or any part of a fee may be refunded, vary depending on the particular fee involved. Requirements governing refund may include such matters as the reason for seeking a refund (for example, death, disability, compulsory military service), the number of days of instruction which have elapsed before application for refund is made (for example, requests for refund of student services fees, student body organization fees, and student body center fees must be made no later than 14 days following the commencement of instruction and requests for refund of extension course tuition fees must be made prior to the fourth meeting of the class), and the degree to which the campus has provided the services for which the fee has been charged. Details concerning the fees which may be refunded, the circumstances under which fees may be refunded, and the appropriate procedure to be followed in seeking a refund may be obtained from the Admissions and Records Information Counter, Administration Building Lobby, AD 110.

Refund Regulations

- Any student who finds it necessary to withdraw officially from CSUH is eligible for a refund of a portion (*see C, below*) of the Student Services fee provided the application for the refund is filed in the Records Office not later than two weeks (14 calendar days) after the term begins, except as provided in *D, below*.
- After withdrawal from CSUH or reduction of academic load, *nonresident or foreign student tuition* will be refunded upon formal application according to the following schedule:

Before or during the first week of the quarter	100%
During the second week of the quarter	75%
During the third week of the quarter	50%
During the fourth week of the quarter	25%
- All students (resident, nonresident) who qualify for a refund of their Student Services fees, according to the above regulations, will have deducted from their refunds a service charge of \$5.00 if withdrawing from CSUH. The student body card must be attached to the refund application form.

Any student reducing unit load resulting in the lower fee category is eligible to receive a refund of the difference between the higher and lower fee, less five dollars, provided the application for refund is filed in the Records Office not later than two weeks (14 calendar days) after the term begins.
- Students who have been called to active duty and, as a result, find it necessary to withdraw from CSUH are eligible for a refund of fees. A refund application form must be filed in the Records Office with a copy of the orders.

¹ Does not include cap and gown rentals.

² 25% of the amount listed is charged for 2-wheel vehicles.

† Cost of material and/or transportation.

ESTIMATED EXPENSES OTHER THAN FEES

FOR AN ACADEMIC YEAR OF THREE QUARTERS

Item	Amount
Books and supplies	\$ 200
Carlos Bee Residence Hall	1,556-1,648 *
Supplementary health insurance (not compulsory)	30.50

Apartments off campus will vary upward from approximately \$200 a month depending on size and facilities. Students should estimate cost of lunches on campus at approximately \$1.50 a day. Expenses such as clothing, laundry, dry cleaning, clubs and organizations, church contributions, recreation, and other personal expenses will vary according to the individual situation. Commuting costs vary but because of CSUH's location a car is a considerable convenience. Public transportation is not available at all hours of the day. Students, therefore, should consider the cost of gasoline, oil, car maintenance, car insurance and, if applicable, car payments, when estimating expenses. The three-quarter costs for a student living away from home vary between \$2,000 and \$3,400 depending upon the distance of the commute to campus.

Student Services Fee

A Student Services Fee was established by the Board of Trustees of The California State University and Colleges in January 1975. Previously, this fee was known as the Materials and Service Fee.

The student services fee provides financing for the following student services programs not covered by state funding:

- Social and Cultural Development Activities:** provides for the coordination of various student activities, student organizations, student government, and cultural programs.
- Counseling:** includes the cost of counselors' salaries and clerical support plus operating expenses and equipment.
- Testing:** covers the cost of test officers, psychometrists, clerical support, operating expenses, and equipment.
- Placement:** provides career information to students and faculty for academic program planning and employment information to graduates and students.
- Financial Aids Administration:** includes the cost of the counseling and business services provided in connection with the financial aid programs.
- Health Services:** provides health services to students and covers the cost of salaries of medical officers and nurses and related clerical and technical personnel, as well as operating expenses and equipment.
- Housing:** includes the cost of personnel providing student housing information and monitoring housing services.
- Student Services Administration:** covers 50% of the cost of the Dean of Students Office, which has responsibility for the overall administration of student services.

Average Annual Costs and Sources of Funds Per Full-Time Equivalent Student

The 19 campuses of The California State University and Colleges are financed primarily through funding provided by the taxpayers of California. For the 1977-78 year, the total cost of operation is \$825 million, which provides continuing support for 236,370 full-time equivalent (FTE**) students. This results in an average cost per FTE student of \$3,491 per year. Of this amount, the average student pays \$297. Included in this average student payment is the amount paid by nonresident students. The remaining \$3,194 in costs are funded by state and federal taxes.

Averages do not fit all students alike or even any specific student. To arrive at an average

* The exact amount depends upon the number of installments used to complete three-quarter payment.

** For budgetary purposes, full-time equivalent (FTE) translates total head count into total academic student load. The term assumes that a full-time student in The California State University and Colleges is enrolled for 15 units of academic credit. Some students enroll for more than 15 units; some students enroll for fewer than 15 units.

figure that is meaningful, the costs outlined above exclude "user fees" for living expenses, housing, and parking, as well as costs for extension and summer session work. Computations are based on full-time equivalent students, not individuals, and costs are prorated by system totals, not by campus. The average costs for a full-time equivalent student in the system are depicted in the following chart:

1977/78 Projection of Total Costs of Campus Operation
(Including Building Amortization)

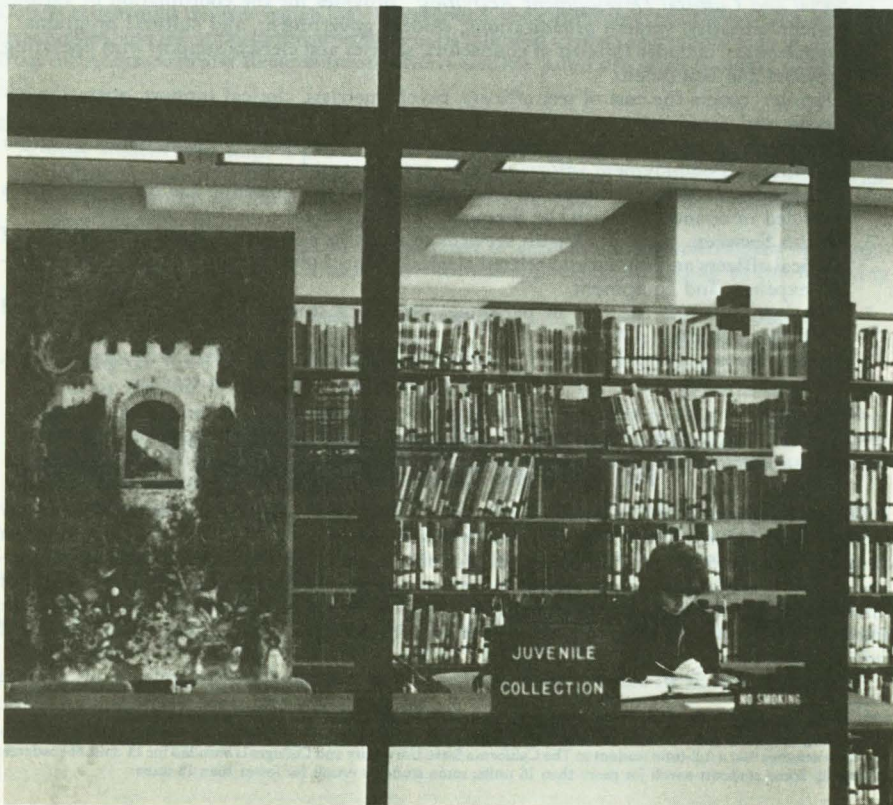
Projected Enrollment: 236,370 FTE

Source	Amount	Average Cost per Student (FTE)*	Percentage
State Appropriation (Support)	\$671,764,609	\$2,842	81.4%
State Funding (Capital Outlay) **	36,360,246	154	4.4
Student Charges	70,247,936	297***	8.5
Federal (Financial Aids)	46,732,894	198	5.7
Total	\$825,105,685	\$3,491	100.0%

* For budgetary purposes, full-time equivalent (FTE) translates total head count into total academic student load. The term assumes that a full-time student in The California State University and Colleges is enrolled for 15 units of academic credit. Some students enroll for more than 15 units; some students enroll for fewer than 15 units.

** The system's wide range of facilities and equipment on the 19 campuses is currently valued at approximately \$1.4 billion, excluding the cost of land. Amortized over a 40-year period, they are valued at \$154 per FTE student.

*** The average costs paid by a student include the student services fee, health facilities fee, college union fee, student body fee, and the nonresident tuition. This amount is derived by taking the total of all student fees and dividing by the total full-time equivalent student enrollment. Individual students may pay more or less than \$297 depending on whether they are part-time, full-time, resident or nonresident students.



REGISTRATION

NOTE: Students are held individually responsible for information contained in these pages. Failure to read and comply with policies, regulations, and procedures will not exempt a student from whatever penalties he may incur.

GENERAL POLICIES

- All students who register at California State University, Hayward must have been properly admitted to CSUH by the Office of Admissions before they may register.
- Registration is complete only when registration cards have been properly submitted and all fees, deposits, and charges are paid. All fees *must* be paid at the time of registration.
- Students are given credit only for those courses in which they are officially registered at the conclusion of the late Add-Drop period.
- Students will be held responsible for completing all courses for which they initially register, except for changes in registration which are officially filed in the Records Office.
- Students enrolled in certain courses who do not attend initial class meetings may be dropped from the class. Departments following this practice will make reasonable efforts to inform students of this action. No student should assume that nonattendance will result in being automatically dropped.
- The University does not guarantee the availability of particular courses or sections thereof since class cards for admission to classes will be issued only until the maximum number of students allowable in any section has been reached.
- The following priorities hold for students enrolling in courses in the 6000 series:
 - students advanced to candidacy in the department concerned;
 - students advanced to candidacy in other departments;
 - classified graduate students in the department concerned;
 - classified graduate students in other departments;
 - unclassified graduate students in the department concerned;
 - unclassified graduate students in other departments;
 - undergraduate students majoring in the department concerned;
 - all other students.

Debts Owed to the Institution

From time to time the student may become indebted to the institution. This could occur, for example, when the student fails to repay money borrowed from the institution. Similarly, debts occur when the student fails to pay institution, dormitory, or library fees, or when the student fails to pay for other services provided by the institution at the request of the student. Should this occur, Sections 42380 and 42381 of Title 5 of the *California Administrative Code* authorize the institution to withhold "permission to register, to use facilities for which a fee is authorized to be charged, to receive services, materials, food or merchandise or any combination of the above from any person owing a debt" until the debt is paid. For example, under these provisions the institution may withhold permission to register, and may withhold other services, such as grades and transcripts. If a student believes that he or she does not owe all or part of a particular fee or charge, the student should contact the campus business office. The business office, or another office on campus to which the student may be referred by the business office, will review the pertinent information, including information the student may wish to present, and will advise the student of its conclusions with respect to the debt.

CLASSIFICATION OF STUDENTS AS FULL OR PART-TIME

The following classifications apply to students enrolled in the fall, winter, spring, or summer quarters (*not extension or summer sessions*):

- Full-time students are those enrolled in 12 or more units of coursework in any regular quarter. Part-time students are those enrolled in less than 12 units. (Please note that

in order to graduate in 4 years or 12 quarters, a student must complete 15–16 units per quarter.)

- Graduate students who apply for veterans benefits (or for benefits as dependents of disabled or deceased veterans), must be enrolled in courses that apply to a definite program (master's degree and/or credential). Enrollment for graduate students is computed in terms of weighted units. In computing weighted units, graduate units (5000 through 6000 level courses), whether taken alone or in combination with undergraduate units, are given a 1.5 weighted measurement. For example, three undergraduate units ($3 \times 1 = 3$) plus six graduate units ($6 \times 1.5 = 9$) or 8 graduate units ($8 \times 1.5 = 12$) would total 12 weighted units, or full time. Part-time graduate students are those enrolled for less than 12 weighted course units in any regular term.

CLASSIFICATION OF STUDENTS BY GRADE LEVEL

Undergraduate students are assigned class level according to the following plan:

1. Lower Division—	<i>Quarter units earned toward the degree</i>
Freshman	fewer than 45
Sophomores	45 but fewer than 90
2. Upper Division—	
Juniors	90 but fewer than 135
Seniors	135 or more

Foreign Student Enrollment Policies

The U. S. Immigration and Naturalization service requires students on non-immigrant visas to pursue a full course of study in a specific program. Therefore undergraduates or second baccalaureate students will be expected to complete 36 units each academic year. Graduate students will be expected to complete 36 graduate units per year. (See above for information on weighted units.)

ADDITIONAL CREDIT REQUEST

Students wishing credit for work taken at another institution while in continuing student status at CSUH must, upon completion of the work, have two copies of the transcript sent to the Office of Admissions and Records and must complete a Request for Additional Credit form available at the Admissions and Records Information Counter in the Lobby of the Administration Building.

PLACEMENT EXAMINATIONS

The California State University and Colleges English Placement Test

Purpose of the Test: The EPT is designed to help students who have been admitted to The California State University and colleges by providing information about individual performance in reading and writing skills. This information will be available to students and their advisers to help in the selection of appropriate course work.

Who Must Take the Test: All first-time freshmen and all new and returning lower division students (those with fewer than 84 transferable quarter units) who will graduate from the CSUC under the degree requirements of 1977–78 and subsequent general catalogs are required to take the EPT, with the exceptions of students who present:

- satisfactory scores on the CSUC English Equivalency Examination;
- scores of 3, 4, or 5 on the Advanced Placement Program English Examination.

Students must take the test at the first test administration available after admission. EPT registration does not require a fee.

If special circumstances make it impossible for students to take the test at the first available administration, students must plan to meet the requirement at the next scheduled opportunity. Each test administration requires a separate registration form. Students whose religious convictions prevent them from taking the EPT on the scheduled test dates must request special arrangements by including a letter, from an appropriate religious authority, when their regis-

tration forms are sent to ETS. Physically handicapped persons should consult their academic advisers about special arrangements for meeting the EPT requirement.

Where the Test Will Be Given: The EPT will be given on all CSUC campuses. Students may take the test on the campus most convenient to them. Students need not take the test on the campus that they are or will be attending.

Test Registration and Registration Forms: CSUC will mail a registration form to all students required to take the EPT. If a student required to take the test does not receive a registration form, he or she may pick up a copy at any CSUC Admissions Office. The registration form must be mailed to Educational Testing Service, 1947 Center Street, Berkeley, CA 94704 and postmarked by the appropriate deadline date. Do not mail registration forms to the CSUC campuses.

English Placement Test and Graduation Requirements

All students subject to degree requirements of 1977–78 and subsequent general catalogs must demonstrate competency in writing skills as a requirement for graduation. In addition, all lower division students (those who enter with fewer than 84 transferable quarter units) are required to take the CSUC English Placement Test (EPT) so that information can be available to help in the selection of appropriate course work in writing skills and to prepare for meeting the graduation requirement. Failure to take the English Placement Test at the earliest opportunity after admission may lead to administrative probation which, according to Section 41300.1 of Title 5, *California Administrative Code*, and CSUC Executive Order 186, may lead to disqualification from further attendance. *The results of the EPT will not affect admissions eligibility.*

Information bulletins and registration materials for the EPT will be mailed to all students subject to these requirements. Alternatively, the materials may be obtained from the Office of Admissions and Records. Information on currently available ways to meet the EPT or the graduation requirement may be obtained from the Dean of Undergraduate Studies or the Director of Admissions and Records.

Other Placement Examinations

Placement examinations are given to place students at appropriate levels of achievement as follows. Check the Schedule of Classes each quarter for specific details.

Chemistry Placement Examination. Students who wish to enroll in Chem. 1101 must either complete Chem. 1100 or pass a placement examination. Consult the class schedule for times at which the placement examination may be taken, or come to the Chemistry Department office in ScN 431 or phone 881-3452.

Mathematics Placement Test. Math 1130, 1300, 1304: Students who wish to enroll in Math 1130, 1300 or 1304 should consult the Catalog entries for prerequisites in these courses. Math 1801: Students with two years of high school math should enroll in Math 1801 where a short qualifying exam will be administered on the first day of class. Students with a low score are then advised to enroll in Math 1100 to prepare themselves for 1801. Math 1802: Students with three years of recent college preparatory math in high school may by-pass 1801 and enroll directly in 1802. *This should be done only after consultation with an adviser.* As a convenience for those students who are unsure of their preparation, the Math Department offers a placement exam which is administered by appointment.

Music Auditions and Proficiency Examinations. Prior to registration, students who wish to declare a major in music must complete examinations and auditions to determine: 1) theory placement, 2) level of applied study, 3) piano proficiency and 4) major performance ensemble. Auditions and examinations are scheduled during the week of orientation and registration. For additional information and specific appointment times contact the Department of Music, MU 1501.

CREDIT BY EXAMINATION

Challenging Courses

The University recognizes that *exceptional students*, by reason of *special studies or experiences*, may already have achieved the objectives of certain courses in the basic program;

therefore, students with this background may petition to receive credit in selected courses by special examination. Such an examination is normally from three to six hours in length and may be oral as well as written. Each course may be challenged only once.

Students wishing credit under this plan must register during registration for the units to be earned by the examination. The class being challenged for credit must be listed in the class schedule for the particular quarter. A petition for credit by examination should be secured from the office of the department offering the course. Permission of both the instructor and department chair is required. The examination must be administered *during the first two weeks of the quarter* and the results, in grade form, must be submitted to the Records Office by the end of the fifth week. The instructor is responsible for notifying the student of the results of the examination.

If the exam is passed (a grade of "C" or higher is required), the letter grade and credit by examination will be indicated on the student's permanent record. If the student fails the examination, he or she must either continue taking the course formally or officially withdraw from it in the Records Office within one week after completing the examination.*

No more than 36 quarter units of credit obtained by examination may be applied toward the baccalaureate degree. No credit earned by examination may be used to satisfy the 36 quarter units of residence requirements at CSUH.

Advanced Placement

California State University, Hayward, grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement Program of the College Entrance Examination Board. Students who present scores of three or better will be granted 8–12 quarter units of college credit, as indicated below.

The Advanced Placement Examinations referred to below are prepared and offered by the College Entrance Examination Board. Unit credit will be granted to those passing the exams, but no letter grade will be assigned or computed in a student's grade point average.

Students who wish Advanced Placement credit must check with the Office of the Dean of Undergraduate Studies to learn whether or not information about the test has been received by CSUH. If the proper records have been filed, the Dean of Undergraduate Studies, by memorandum, will direct the Records Office to make the necessary entries in the student's records.

Biology. 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. 1000 and Biol. 3020, or, if the student is a major in biology, 10 units in place of Biol. 1102 and 1103. (No letter grade will be assigned or computed in the student's grade point average.)

Chemistry. A chemistry student who has successfully completed the advanced placement course in chemistry in high school and has earned a score of "3," "4" or "5" in the Advanced Placement Examination will be granted 10 units of credit equivalent to Chem. 1101 and 1102.

Mathematics. A mathematics student who has successfully completed an advanced placement course in calculus in high school and has earned a score of "3," "4" or "5" on the Advanced Placement Examination will receive 8 units of credit equivalent to Math. 1300 and 1304.

Physics. Passing the examination Type B with a grade of "3," "4," or "5" will give the student credit for Phys. 2701, 2702: 8 quarter units of credit.

Passing the examination Type C with a grade of "3," "4," or "5" will give the student 10 units of credit: Phys. 1001 and 1002.

Art. An art student who has successfully completed an advanced placement course in Studio Art in high school and has earned a score of "3," "4" or "5" on the Advanced Placement Examination in Studio Art will be granted 10 units of credit. These units will be equivalent to two of the following courses: Art 1110, 1120, 1130. The specific equivalence will be deter-

* The instructor need not inform the Records Office of the grades "D" or "F."

mined by portfolio review upon the student's entrance into the major.

An art student who has successfully completed an advanced placement course in Art History in high school and has earned a score of "3," "4," or "5" on the Advanced Placement Examination in Art History will be granted 10 units of credit equivalent to Art 2030 and 2040.

English. Students who have successfully completed the advanced placement course in English in high school and have earned a score of "3," "4," or "5" on the Advanced Placement Examination will be granted 8 units of credit equivalent to Engl. 2030 and Engl. 2040.

Students who have earned 8 units of credit through the Advanced Placement Examination are encouraged to challenge Engl. 1001. A successful challenge will earn 4 units of credit for Engl. 1001. (See *Credit by Examination*, p. 68.)

Foreign Languages. A student who has successfully completed the advanced placement course in a foreign language in high school and has earned a score of "3," "4" or "5" on the Advanced Placement Examination will be granted 12 units of credit equivalent to the first three courses of a foreign language.

A student who has completed the French literature exam with a score of "3" or above will receive 12 units of credit equivalent to FLan. 3121–2–3. A student who has completed the German literature examination with a score of "3" or above will receive 12 units of credit equivalent to FLan. 2203, 3210, and 3223. A student who has completed the Spanish literature exam with a score of "3" or above will receive 12 units of credit equivalent to FLan. 3400, 3422, and 3463.

History. History students who have successfully completed the advanced placement course in U.S. history in high school and have earned a score of "3," "4" or "5" on the Advanced Placement Examination will be granted 8 units of credit equivalent to Hist. 1101 and 1102. Students who have completed the advanced placement course in European history in high school and have earned a score of "3," "4" or "5" on the Advanced Placement Examination, will be granted 8 units of credit equivalent to Hist. 1011 and 1012.

Music. A student who has earned a score of "3" or better on the Advanced Placement Test in Music Listening and Literature will be granted 8 units of credit equivalent to Music 2112, 2155, and 2156.

A student who has earned a score of "3" or better on the Advanced Placement Test in Music Theory will be granted 8 units of credit equivalent to Music 1031–2, 1027–8. A score of "4" or "5" will earn 12 units of credit equivalent to 1031–2–3 and 1027–8–9.

English Equivalency Test

Students who pass the English Equivalency Examination administered by The California State University and Colleges will receive the following credit. Students receive credit for Engl. 1001 (4 units), Engl. 2030 or 2040 (4 units), and one elective unit. The decision on whether 2030 or 2040 is appropriate must be made by an English adviser after interviewing the candidate.

College Level Examination Program

The following College Level Examination Program (CLEP) tests are acceptable for the amount of credit indicated, subject to the achievement of the scores indicated and the conditions stated in the succeeding paragraphs. (At present, CSUH grants no credit for completion of the ACT Credit by Examination Program.)

Examination	Passing Score	Credit
Mathematics General Exam (1975 edition) (Passing score must be earned on both parts)	50	4 units
College Algebra—Trigonometry	49	4 units
Introductory Calculus (including essay)	48	4 units
Statistics (including essay)	49	4 units
General Chemistry	48	4 units

There are no specific course equivalencies for the examinations and, hence, only unit credit toward graduation can be granted.

The award of credit by CLEP examination is subject to the following conditions:

- Credit shall not be awarded for successful passage of any examination if the student has taken that examination previously within the past calendar year.
- Credit shall not be awarded when equivalent degree credit has been granted for regular course work, credit-by-exam, or other institutional processes such as correspondence study or military training.
- Credit shall not be awarded when credit has been granted for previous course work for an examination more advanced than the level represented by the examination in question.
- Duplicate credit shall not be awarded where there are overlapping tests, university level work, or both. Where there is partial overlap, the amount of examination credit shall be prorated.
- The total amount of credit earned on the basis of externally developed tests (including CLEP and English Equivalency Examinations) which may be applied to a baccalaureate degree shall not exceed 45 quarter units. Advanced Placement credit is excluded from this limit.

Science Equivalency Test Program

Students who pass the American Chemistry Society Cooperative Examination in General Chemistry (most recent edition) at or above the 50th percentile will receive 4 quarter units of credit. A biology equivalency is also being used on a trial basis. Regulations, a, b, c, d, and e above are also applicable to these new equivalency tests and others being developed. Contact the Testing Office or the Office of Admissions and Records for additional information.

ENROLLMENT

Schedule of Classes

A Schedule of Classes, prepared each quarter, includes a listing of general information, courses offered, hours, rooms and instructor names. The schedule is available before registration each quarter and may be purchased in the University Bookstore. The schedule of final examinations also appears in this publication. The final examination schedule changes every quarter.

Academic Load

- Undergraduate Students.** The normal academic load for full-time undergraduate students is assumed to be 15 units of coursework (12 units is the minimum for full-time status) per quarter. Generally two hours of preparation for each hour of regular class work can be expected. A student may enroll for no more than 18 units during the regular registration periods. A student wishing to take additional units must secure the written approval of his or her academic adviser and the Dean of Undergraduate Studies and add the desired courses during the Add/Drop period. (See also Late Adding of Courses.)

Permission is given according to the following guidelines:

2.50-2.99 G.P.A.	19-22 units
3.00-3.49	23-24 units
3.50 or more	over 24 units

It is the adviser's responsibility to verify the student's most recent grade point average.

- Graduate Students.** A graduate student who wishes to enroll for more than 18 units of course work per quarter must secure the written permission of his or her academic adviser and the Dean of Graduate Studies and add the desired courses during the Add/Drop period.

Auditing Courses

An auditor enrolls for instruction only. Regular class attendance is customary without other participation or credit. The student who wishes to audit a class secures the written permission of an instructor on an Audit card which must be filed in the Records Office during the ADD/DROP period from the first through the fifteenth day of instruction. No change to or from auditor status is possible after the Late ADD/DROP Period. Only those who file the

Audit card may be assigned an AU grade. An auditor pays the same fees and enjoys the same instructional privileges as students enrolled for credit, but is not held responsible for examinations or term papers. Regular class attendance is expected. Students eligible to enroll on a credit basis have priority over auditors in enrolling in courses.

Individual Study Courses

An Individual Study course is a course which is listed in the CSUH Catalog but is not being offered during the term in which a student must gain course credit to complete a specified objective. Permission to take such a course may be granted only in cases of necessity. Applications for Individual Study may be obtained in departmental offices. The application, with signatures of approval, is to be returned to the Admissions and Records Information Counter in the lobby of the Administration building not later than the fifteenth day of instruction (end of Late ADD/DROP Period).

Independent Study Courses

An Independent Study course is a program of study which is above and beyond the regular offerings of a department. The number of such a course will be 4900, 5900, or 6900, depending on the level and content of the work. Such a course is considered as elective credit in the program of a student working for a specified objective.

The privilege of Independent Study is limited to students who have at least a 2.0 (C) grade average in all courses in the field or department in which the independent study is to be taken, both at this institution and in work which may have been attempted at other institutions. Students who are on academic probation are ineligible for Independent Study. Independent Study is restricted to students of such ability and background who are able to work with only a relatively small amount of supervision. No faculty member is required to teach an Independent Study course.

Applications for Independent Study may be obtained in departmental offices. The application, with signatures of approval, is to be returned to the Department Office. The Department Office will issue an add card which is to be completed by the student and returned to the Department Office. The Department Office must submit the add card to the Records Office no later than the fifteenth day of instruction (end of Late ADD/DROP Period).

A course offered by independent (or individual) study shall be taught only by a professor in the department offering the credit or by a professor judged by the department to be competent to teach the particular subject matter of the course.

Directed Group Study Courses

Each quarter, CSUH offers a variety of Directed Group Study (DGS) courses in various departments. These courses are always identifiable from the numbers assigned to them. Lower division courses bear numbers in the 1920-1999 series, upper division courses in the 4920-4999 series, professional level courses in the 5920-5999 series, and graduate courses in the 6920-6999 series. Such courses are experimental, and are given by departments to determine such things as the best way to teach a subject or whether or not the course should be made part of the regular curriculum. Such DGS courses carry full credit and fulfill the same requirements as regular courses in the curriculum. Students, therefore, should not hesitate to take them merely because they are experimental.

Descriptions of DGS courses appear in the Schedule of Classes each quarter. A DGS course may be passed by examination or challenged only after it has been listed in the class schedule and has been or is being taught to a class.

Dual Matriculation

Information pertaining to dual matriculation is available in the office of Admissions and Records. Under this program eligible high school students may enroll for full credit.

Thesis Registration

Students registering for thesis units must obtain an Add card in their Department Office. The card is to be completed and returned to the Department Office. The Department Office must submit the add card to the Records Office no later than the fifteenth day of instruction (end of Late ADD/DROP Period).

Late Registration

A late registration period of six instructional days is available to previously admitted or continuing students who were unable to be present during the regular registration period. Students completing the registration process during this late registration period will be assessed a non-refundable late registration fee of \$5. Requests to register after the last day of late registration cannot be granted.

Verification of Enrollment

A verification of enrollment is sent to each student twice each quarter.

1. Initial verification (first week of classes): Discrepancies in the student's programs are handled by the office of the Department offering the course. Add and/or drop cards must be filed with the appropriate Department in order to correct discrepancies.
2. Mid-term verification (fourth week of classes): Discrepancies are handled by the Records Office. All discrepancies must be reported to the Records Office no later than the deadline date printed on the verification of enrollment card.

Cancellation of Enrollment

Any student who fails to fulfill admission or matriculation requirements or who otherwise fails to adhere to academic or CSUH regulations is subject to immediate administrative action which may result in his or her being placed on probation or having his or her enrollment for that term cancelled. Application for readmission to a subsequent term may be considered, provided the deficiency which resulted in the cancellation has been removed.

CHANGES IN ENROLLMENT

Adding Courses

Registered students may add courses during the first six (6) days of instruction (Regular ADD/DROP Period) by reporting to the Department Office in which the courses are offered. Students must have the instructor sign the appropriate card available in the departmental office. The student must return the signed card to the departmental secretary so that the action will be recorded on the departmental roster.

From the seventh through the fifteenth instructional days (Late ADD/DROP Period), a student may add a course if the instructor approves and there is sufficient capacity in the class to accommodate the student. If signed by the instructor, the Late Add Card is submitted to the Admissions and Records Information Counter in the Lobby of the Administration Building. Adding a course during the Late ADD/DROP Period is permitted only in exceptional circumstances. Adding a course is not permitted after the fifteenth instructional day.

Dropping and Withdrawing from Individual Courses

Submitting a Drop Card is required when a student finds it necessary to cancel a course in which the student registered that particular quarter, but is still registered in one or more additional courses.

Any student may drop a course through the third week of instruction and the course will not appear on the Permanent Record. To drop a course during the first six instructional days (Regular ADD/DROP Period), the student must report to the Department Office in which the course is offered. To drop a course from the seventh through the fifteenth instructional day (Late ADD/DROP Period) the student must submit the Late Drop Card, signed by the instructor, to the Admissions and Records Information Counter in the Lobby of the Administration Building.

After the third week of instruction, a W will be recorded on the Permanent Record if a student withdraws from an individual course. Students will be permitted to withdraw from individual courses beginning with the fourth week through the seventh week of instruction for serious and compelling reasons. The reason for the withdrawal must be substantiated and the Drop Card must include the signature of the instructor and the Department Chair. The Drop Card must be submitted to the Admissions and Records Information Counter in the Lobby of the Administration Building. During the final three weeks of the quarter, students will be permitted to withdraw from individual courses only for serious circumstances beyond the student's control. In addition to the substantiated reason, signatures of the instructor and Department Chair, the student must also obtain the signature of the Dean of Undergraduate/Graduate Studies as appropriate. The Drop Card must be submitted to the Admissions and Records Information Counter in the Lobby of the Administration Building.

The administrative symbol W indicates that a student was permitted to withdraw from a course after the third week of classes with the approval of the instructor and appropriate campus officials. It carries no connotation of quality of student performance and is not used in calculating grade point average.

A student who registers for a course and fails to attend but does not file an official Drop Card receives an appropriate administrative grade indicating failure. Refer to Grading and Academic Standards section.

Withdrawing from the University

Submitting a Withdrawal Form is required when a student finds it necessary to cancel all courses in which the student registered that particular quarter. Withdrawal Forms are available at the Admissions and Records Information Counter in the Lobby of the Administration Building.

Any student may withdraw from the University through the third week of instruction and the course(s) will not appear on the Permanent Record. The student completes a Withdrawal Form and obtains instructor's signature for each course, then returns the Withdrawal Form to the Admissions and Records Information Counter in the Lobby of the Administration Building. Refer to Refund Regulations in the Fees and Expenses section.

If a student finds it necessary to withdraw from the University during the fourth through the seventh week of instruction, a Withdrawal (W) will be recorded on the Permanent Record. The student must obtain signatures from each instructor and the major Department Chair. Withdrawals after the seventh week of instruction must have the reason substantiated and requires a signature of the Dean of Undergraduate/Graduate Studies as appropriate, in addition to the signatures stated above. A quarter from which a student withdraws is not counted as an interruption of enrollment.

A student who withdraws from the University but does not file an official Withdrawal Form will receive appropriate administrative grade(s) indicating failure. Refer to Grading and Academic Standards section.

Change of Major, Degree, or Credential Objective

Students, except those in graduate degree programs, who wish to change their major, degree, or credential objective must obtain the required form at the Admissions and Records Information Counter. A change is not official until the form has been signed and filed at the Admissions and Records Information Counter. Students should be aware that they will be responsible for the requirements in the catalog in effect at the time they file a change.

Students in graduate degree programs who wish to change degree objective must apply for admission to the new program by filing a completed supplemental graduate application with the Admissions Office.

Change of Name or Address

A currently enrolled student who has changed his or her name or address should notify the Office of Admissions and Records by completing the form available at the Admissions and Records Information Counter. Official notification is necessary for proper identification of student records and for accurate mailing of correspondence, e.g., grade reports, changes of

grade, transcripts, and information pertaining to graduation requirements. Students are required to keep the Office of Admissions and Records informed of all changes; the University will not be responsible for mailing correspondence to the incorrect name or address unless changes are formally filed.

Planned Educational Leave

A student may petition for a planned educational leave to pursue educationally related activities which will enhance the prospect of successful completion of his or her academic program but which do not require enrollment at California State University, Hayward or any other institution of higher education.

A planned educational leave may be for a period of up to two years. If the leave is approved, the student will retain graduation catalog rights and may register as a continuing student provided he or she returns and registers in the same major for the quarter indicated. Failure to return by the quarter indicated means loss of catalog rights and the student will be required to apply for readmission and pay the \$20.00 application fee.

Petitions are available at the Admissions and Records Information Counter, AD 110.



GRADING AND ACADEMIC STANDARDS

GRADING SYSTEM

Academic Grading

Symbols	Explanation	Grade Points	Progress Points
A	Excellent	4	4
B	Good	3	3
C	Satisfactory	2	2
D	Poor	1	1
F	Failing	0	0
CR	Credit	0	2
NC	No Credit	0	0

Administrative Grading Symbols

SP	Satisfactory Progress
I	Incomplete
RD	Report Delayed
W	Withdrawal
AU	Audit
U	Unauthorized Incomplete (This is the only administrative grade used in g.p.a. calculations.)

A, B, C, D, F Courses

The normal grading pattern for courses is A, B, C, D, F. All courses required for the major in the major department must be taken in this pattern, unless specifically exempted by the department as noted in the course description.

Credit/No Credit Courses

Any undergraduate student may enroll on a Credit/No Credit basis in any course not taken to meet major requirements in the major department up to a limit of 60 units. Post-baccalaureate and graduate students may *not* use courses taken on a CR/NC basis to meet graduate degree requirements, but otherwise may enroll in courses on a CR/NC basis. No course taken on a CR/NC format may be applied to a graduate degree.

Neither a CR nor a NC grade will be computed in a student's grade point average, but both will be counted as units attempted and a CR counted as 2 progress points and a NC as 0 progress points in determining a student's academic standing. The units earned in a course in which a CR grade has been assigned will be applied toward baccalaureate graduation requirements. A student wishing to take courses required for the major but outside the major department on a CR/NC basis must obtain approval for such action from his or her major department. Major courses in the major department may be taken on a CR/NC basis *only* if the catalog description so indicates. However, *no student may take over 60 units of CR/NC units in his or her undergraduate career.*

A CR grade always signifies mastery of course material at the A, B, or C level. A grade of NC indicates D or F work.

A student registers for a course on a CR/NC basis by filling out the proper card, which should be obtained at the Admissions and Records Information Counter, during the ADD/DROP Period. No changes to or from CR/NC status may be made after the ADD/DROP Period (first 15 instructional days).

Grade Point Averages and Their Significance

Grade points are earned on the following basis: 4 grade points per unit of A, 3 grade points per unit of B, 2 grade points per unit of C, and 1 grade point per unit of D. An F grade earns no grade points. A student's grade point average (G.P.A.) is computed by dividing the total

number of units attempted, whether or not they were passed (but excluding CR/NC courses and those in which administrative grades were assigned except for the U), into the number of grade points earned. A 2.00 (C) average in all college/university courses, all CSUH courses, and all major courses is required for graduation (excluding CR, NC, W, and AU grades). All courses required by a major, including those in other departments, must be included in the calculation of the major G.P.A.

The number of grade points earned by a student may affect his or her academic standing on a quarterly basis. Any student whose total number of grade points does not equal *at least twice* the total number of units attempted or whose number of CSUH grade points does not equal *at least twice* the number of CSUH units attempted is placed on probation (the G.P.A. is below 2.00). If a student falls short of a 2.0 grade point average, then he or she is said to have a grade point deficiency. The grade point deficiency is computed as follows:

$$\text{Number of grade points deficient} = 2 \times (\text{number of units attempted}) \\ - (\text{grade points earned for those units})$$

A student who has a grade point deficiency either in his or her entire undergraduate record or in his or her CSUH record is placed on probation. If the grade point deficiency reaches certain specified levels defined in the section on Probation and Disqualification below, the student is subject to academic disqualification.

The student should note three significant aspects of the G.P.A. First, it is the number of deficient grade points and not the G.P.A. itself which determines disqualification. For example, two students have identical G.P.A.'s of 1.75, but one is a freshman and deficient 15 grade points and the other is a senior and deficient 55 grade points. The former is on probation; the latter is disqualified. A second point to note is that a certain grade point deficiency may be sufficient to disqualify a person at one class level, but not at another. For example, a 10 point deficiency will subject a senior to disqualification, but not freshmen, sophomores, and juniors. Finally, a student should recognize that there are two ways in which progress toward a degree is gauged. A simple accumulation of units is one method, but the proper accumulation of grade points must also be maintained. It is impossible to graduate *with any grade point deficiency whatever*, no matter how many units are earned. A student may progress toward graduation accumulating D units at the same time he or she increases a grade point deficiency and thus moves farther from graduation.

Repetition of Courses

For purposes of improving his or her grade point average, a student pursuing a baccalaureate degree may repeat a course, *with prior approval*, in which a D, F, or U grade was earned subject to the following conditions:

- The student files a formal written request with the chair of the department or program in which the course is taught. (Forms are available in department offices.)
- The request is approved by the chair and the Dean of Undergraduate Studies, and forwarded to the Office of Admissions and Records before the end of the Late ADD/DROP Period of the quarter in which the course is being repeated.
- After the course is repeated, units attempted, units earned (if any), and grade points (if any) for previous attempts are excluded from grade point computations. The earlier attempt(s) remain on the student's permanent record with an appropriate notation.

If a student repeats a course in which a D, F, or U grade was earned without requesting prior permission, all attempts will be utilized in calculating grade point averages, although the student earns credit for the course only once. Permission cannot be given to repeat a course in which an "I" grade is pending completion. Preference will be given to first-time enrollees in any class and permission to repeat may be denied if the course is impacted.

If a student desires to repeat a course which was first taken at another institution, the appropriate CSUH department chair must also certify the equivalency of the courses in addition to the above conditions. For transfer students, CSUH honors the policy of other institutions on courses repeated there. If the policy cannot be determined, the CSUH policy is applied.

A course in which an NC grade was assigned may be repeated without filing the Academic Renewal form providing there is space in the class.

If a student repeats a course in which an A, B, C, or CR were received, the repeated course will not be counted as units attempted nor will the grade or progress points be counted unless the catalog description of that course specifies that it may be repeated for credit. However, the second grade earned will be entered on the permanent record with an appropriate notation.

Removal of Previous Term(s) Work from Degree Consideration

A student seeking a baccalaureate degree may request that one, two, or three entire quarters (or one or two entire semesters) of previous undergraduate coursework taken at any institution be disregarded from all considerations associated with baccalaureate degree requirements.

Approval of the request is subject to *all* of the following conditions:

- The student submits a formal written request to the Academic Renewal Committee. (Forms are available at the Admissions and Records Information Counter in the lobby of the Administration Building. Completed forms are turned in by the student to the Office of Admissions and Records.)
- The student's record indicates that the work completed in the term(s) under consideration is substandard and not representative of present scholastic ability and level of performance, the level of performance in the term(s) under consideration was caused by extenuating circumstances, and the student would be compelled to complete additional units and enroll in one or more additional quarters to qualify for the baccalaureate degree if the request were not approved. All of these criteria must be satisfied.
- Five years have elapsed since the most recent work to be disregarded was completed.
- The student has completed at CSUH since the most recent term to be disregarded, 22 quarter units with at least a 3.00 G.P.A., 45 quarter units with at least 2.50 G.P.A., or 67 quarter units with at least a 2.00 G.P.A. (Work completed at another institution cannot be used to satisfy this requirement.)
- The request is approved by a majority vote of the Academic Renewal Committee.

If the request is approved, the student's permanent academic record will be annotated to indicate that no work taken during the disregarded term(s) even if satisfactory, may apply toward baccalaureate degree requirements. However, all work remains on the record.

CSUH honors the policy of other institutions in disregarding or removing previous work from degree consideration. However, each term disregarded by another institution reduces by one the number which may be disregarded by CSUH.

Satisfactory Progress

The administrative symbol SP is employed in theses, special research studies, and field studies where assigned work extends beyond a single academic quarter and may include enrollment in more than one quarter. The symbol indicates that work in progress has been evaluated as satisfactory to date, but that assignment of an academic grade must await completion of additional course work. Cumulative enrollments in units attempted in thesis, research, or project courses may not exceed the total number of such units applicable to the degree or credential. All work is to be completed within one calendar year of the date of first enrollment except for courses organized solely for the preparation of Theses or Special Projects. (See pages 105, 106 for the disposition of SP grades in such graduate courses.) A final grade will be assigned to all segments of the course based on overall quality. (An extension may be granted by the department if military service or serious health or personal problems prevent the student from completing the work, or if the professor is away on leave during the quarter of expiration. Such extensions are for one quarter only to a maximum of two extensions and must be approved by the instructor and department chair, and Dean of Graduate or Undergraduate Studies as appropriate.) In situations where normal practice requires extension of course requirements beyond the close of a quarter, the SP grade is required and the use of I or W, specifically prohibited.

The administrative grading symbol SP will not be used in calculating grade point average or progress points. If the SP is not converted to a letter grade within the appropriate period, it becomes an F or an NC depending upon the grading pattern in which the course was taken. The F will be utilized in computing grade point average and progress points in the quarter the SP changes and the NC will be utilized in computing progress points in the quarter the SP changes.

Incomplete

The I symbol is assigned by an instructor if a student is unable, for unforeseen reasons, to complete a definable portion of course work and there is still a possibility of credit upon completion of further work. An incomplete cannot be assigned when it is necessary for a student to attend a major portion of the class when it is next offered. The student is responsible

for bringing pertinent information to the instructor concerning the reasons for receiving an incomplete. Work needed for completion shall be specified and communicated to the student in writing with a copy to the department or program chair.

An academic grade for the course is recorded when the work has been completed and evaluated. The grade shall be recorded as an F or an NC, depending upon the grading pattern for the course, if the work is not completed within a year. This limitation prevails whether or not the student maintains continuous enrollment. (An extension may be granted by the department if military service or serious health or personal problems prevent the student from completing the work, or if the professor is away on leave during the quarter of expiration. Such extensions are for one quarter only to a maximum of two extensions and must be approved by the instructor and department chair.) If the work is not completed within a year, the student must reregister and pass the course to receive credit. (The student can *not* reregister for a course as a means of making up an Incomplete grade.) The course in which the I grade was given will become an F unless a new grade is submitted within one calendar year of its assignment.

Students whose eligibility to graduate is not dependent on a course in which an I grade is still active will not be subject to its default. (No grade may be changed once graduation has been posted.) The I grade will not be used in calculating grade point average or progress points, except that if it is changed to an F, the F will be utilized in computing grade point average and progress points in the quarter the I is changed, or if it is changed to an NC, the NC will be utilized in computing progress points in the quarter the I is changed.

Report Delayed

The RD symbol is assigned by the Records Office when grade reports are delayed by circumstances beyond the student's control such as the illness of an instructor. The RD grade should be replaced by the appropriate academic grade as soon as possible. The administrative symbol RD will not be used in calculating grade point average or progress points. Failure of an instructor to enter a grade for a student will result in a U grade being assigned. Refer also to Unauthorized Incomplete.

Withdrawal

The effective final day to drop a class is the end of the third week of the quarter (15 instructional days). During the first three weeks of a quarter, a student simply fills out a green drop card or a withdrawal from school petition and files it with the department or the Office of Admissions and Records. (There are no automatic drops. *) Faculty are urged to provide some mechanism for students to evaluate their progress in a course during the first three weeks.

For serious and compelling reasons (for example, personal or family illness, death in the family, change in working hours), a student may petition an instructor and department chair to allow him or her to drop a course from the fourth through the seventh week. The student does this by filling out a yellow late drop card which contains space for the reason for withdrawal. Each case must be reviewed by the instructor and department chair, who may require documentation of the reasons listed. Cards which lack appropriate reasons and/or are signed by someone other than the instructor and department chair will be rejected by the Office of Admissions and Records. Withdrawal after the census date is an uncommon occurrence and receives careful scrutiny by those approving it. Lack of class attendance and poor academic performance, except when engendered by the serious causes listed above, are not acceptable reasons for late withdrawals. A student may withdraw from the University from the fourth through the seventh week by filling out the proper petition, which requires the signatures of all instructors and the major department chair. The acceptable reasons for withdrawal and the need for documentation are the same as for single class drops.

Withdrawals from single classes are normally not permitted after the seventh week of the quarter. If a student has attended and done the classwork for the interval and has a valid reason for not completing a course, the Incomplete grade is the appropriate grade for an instructor to assign. Refer to Incomplete section above.

A student may petition, again for serious and compelling reasons, to withdraw from all classes after the seventh week of the quarter. The withdrawal from school petition requires

* When individual courses are closed, the department may initiate drop cards for students who have not attended the first class meeting and whose absence was not authorized.

the signatures of all the instructors and the major department chair, who may require appropriate documentation. The petition also requires the signature of the Dean of Undergraduate Studies or Graduate Studies, whichever is appropriate to the level of the student. Appropriate documentation is required by the deans.

The administrative symbol W indicates that a student was permitted to drop a course after the third week of classes with the approval of the instructor and appropriate campus officials. It carries no connotation of the quality of student performance and is not used in calculating grade point average or progress points. Refer to Changes in Enrollment section on page 72.

A student who does not file official withdrawal forms and does not attend class receives, according to the grading pattern in the course, a U grade which is used in calculating grade point average and progress points, or an NC grade which is used in calculating progress points. Refer to Unauthorized Incomplete also.

Audit

An auditor enrolls for instruction only. Regular class attendance is customary without other participation or credit. The student who wishes to audit a class secures the written permission of an instructor on an Audit card which must be filed in the Office of Admissions and Records during the ADD/DROP Period. No change to or from auditor status is possible after the Late ADD/DROP Period. Only those who file the Audit card may be assigned an AU grade. An auditor pays the same fees and enjoys the same instructional privileges as students enrolled for credit, but is not held responsible for examinations or term papers. Regular class attendance is expected. Students eligible to enroll on a credit basis have priority over auditors in enrolling in courses.

Unauthorized Incomplete

The symbol U signifies that an enrolled student has not officially withdrawn from a course and that course requirements were not completed to the extent that in the opinion of the instructor normal evaluation of academic performance was possible. For purposes of grade point average and progress point computation this symbol is equivalent to an "F." (The U grade cannot be used under the CR/NC grading format.)

Final Examinations

It is the general policy in most courses to have examinations or other graded assignments during a quarter and a final examination. Students shall be fully informed of the manner of their evaluation as well as the requirements and assignments at the start of each quarter. If an instructor requires a final examination, it will be given only at a time scheduled by the University. Once scheduled, the examination time for a course may not be changed without the written approval of the Chair of the Department offering the course.

PROBATION AND DISQUALIFICATION

I. Purposes

Title 5 of the California State Administrative Code requires that a student must achieve at least a 2.00 G.P.A. in all university work, all work at the degree-granting state university, and all work in the major in order to receive a baccalaureate degree. (Graduate students must maintain 3.00 averages.) The purpose of probation is to warn a student that his or her academic performance is below the state minimum required for graduation and to indicate that an improvement is required before a degree can be granted. Students on probation should avail themselves of the various University services for improvement of their academic work.

If a student's work continues to decline to the point that it appears most unlikely the grade point deficiency can be removed in the time remaining before completion of other degree requirements, the student is disqualified. Undergraduate students are subject to disqualification when their grade point deficiencies exceed the limits defined in section II B. However, the University reviews the records of those students who have not exceeded the limits by more than eight units to determine if there is evidence of the ability to remove the deficiency in time to graduate. When such evidence is found, the students are given one additional quarter to reduce the deficiency below those limits. Undergraduate stu-

dents with a deficiency in excess of 8 over the limits subjecting them to disqualification and students who fail to remove their excessive deficient points when granted an extra quarter of probation are disqualified without further review. Graduate students are disqualified according to the criteria in section IV B. Disqualification signifies that the student has not shown evidence of the ability to complete the degree requirements of California State University, Hayward. Only when the student can provide compelling evidence of the ability to complete a University degree can reinstatement be considered.

II. Undergraduate Students

A. Probation

1. A student with a cumulative grade point average or CSUH grade point average of less than 2.0 shall be placed on probation.
2. A student shall be placed on probation if, in any quarter while taking CR/NC courses, he or she fails to earn twice as many progress points as all units attempted during that quarter (administrative grades excluded except the U).
3. A student shall be placed on probation if reinstated following disqualification.
4. A student shall be removed from probation upon earning twice as many progress points as all units attempted and when his or her cumulative grade point average and CSUH grade point average reach 2.0.
5. A student may be administratively placed on probation if he or she withdraws from all courses for two consecutive quarters or any three quarters, repeatedly fails to progress toward a degree when enrolled, or fails to comply with any academic requirement or regulation routine for all students.
6. Students on probation should consult with their academic departmental advisers prior to registration in the subsequent quarter. Students unsure of their present majors, or who have not yet declared an academic major, are urged to seek assistance through the Counseling Services (AD 408). It is strongly recommended that students on probation contact the Counseling Services (AD 408) for referral and assistance with student problems.

B. Disqualification

A student on academic probation because of his or her CSUH record shall be subject to disqualification if:

1. As a lower-division student (less than 90 quarter units of college work completed), if he or she falls 23 or more grade points below a "C" (2.0) average on total units attempted or in all units attempted at CSUH.
2. As a junior (90–134 quarter units of college work completed), if he or she falls 14 or more grade points below a "C" (2.0) average on total units attempted or in all units attempted at CSUH.
3. As a senior (135 or more quarter units of college work completed), if he or she falls 9 or more grade points below a "C" (2.0) average on total units attempted or in all units attempted at CSUH.
4. He or she fails to attain twice as many progress points as all units attempted (administrative grades excluded except the U) in any quarter while on probation and taking CR/NC courses.
5. He or she has a grade point deficiency in a single quarter so great in view of his or her past educational record and class level that it appears unlikely he or she will remove the deficiency in a reasonable period.
6. He or she fails to meet the conditions for removal of administratively determined probation defined above, becomes subject to academic probation while administratively placed on probation, or is twice administratively placed on probation.

Disqualification will be implemented according to the following procedures:

1. The University will review the academic records of all lower division students with deficiencies of 23–31 grade points, of all juniors with 14–22 grade points, of seniors with 9–17 grade point deficiencies, and of all students subject to disqualification on the basis of progress points. The review will determine if sufficient previous academic achievement exists to delay implementing the disqualification of such students for one subsequent quarter.
2. When such achievement exists, the student subject to disqualification because of grade point deficiency will be notified that in order to be eligible for continued registration, the grade point deficiency must be reduced below the 23, 14, or 9 unit

limits (as defined above) in the subsequent quarter.

3. A student subject to disqualification on the basis of progress points will be notified that in order to be eligible for continued registration, he or she must earn twice as many progress points as units attempted in the subsequent quarter.
4. Failure to attain such improvements results in academic disqualification at the end of the subsequent quarter.
5. Students on academic probation with grade point deficiencies in excess of the following limits in work attempted at CSUH will be disqualified without further review of academic records.

Lower Division	32 or more
Juniors	23 or more
Seniors	18 or more

An undergraduate student who is not on probation may be disqualified if, at any time, his or her cumulative grade point average falls below 1.0 and, in the opinion of campus authorities it is unlikely in light of the student's overall educational record, that the resultant grade point deficiency will be removed in subsequent quarters.

III. Post-Baccalaureate Students

A post-baccalaureate student not in a graduate degree program is subject to the same probation and disqualification standards as a senior undergraduate student.

IV. Graduate Students

(Graduate students are also subject to the same criteria for administratively determined probation and disqualification as undergraduate and other post-baccalaureate students.)

A. Probation

1. A graduate student with a cumulative grade point average of less than 3.0, for all courses which are part of his or her degree program, shall be placed on probation.
2. A graduate student shall be removed from probation when the cumulative grade point average reaches 3.0 for all courses which are part of the degree program.
3. A graduate student on probation must discuss the situation with his or her academic adviser before registering for a new term.

B. Disqualification

At the discretion of the Office of Graduate Studies, any graduate student is subject to disqualification:

1. If during any quarter while on probation, he or she fails to obtain at least a 3.0 grade point average.
2. If he or she fails to meet the academic criteria of his or her major department. (See departmental academic criteria in Part II of this catalog.)

Readmission Following Disqualification for Undergraduate Students

Students applying for readmission (see page 46) must provide evidence of a reasonable chance of graduating from CSUH which requires a 2.00 grade point average in all university work, all CSUH work, and all work in the major. Such evidence will normally be in the form of significantly improved all-university grade point averages obtained by attendance at other institutions. As a result, disqualified students will not normally be considered for readmission to California State University, Hayward for at least one year after disqualification and in no case in less than one quarter.

Students readmitted following disqualification resume work at the University with the same CSUH deficiency which subjected them to disqualification. Such students must maintain a minimum 2.5 grade point average each quarter after readmission until they are no longer subject to disqualification. Normally, no student who has been twice disqualified from CSUH may be readmitted.

Reinstatement Following Disqualification for Graduate Students

A student who has been disqualified once from a graduate degree program may apply for reinstatement to that program by petition to the major department. The application must receive the approval of the departmental graduate studies committee and the department chair before being sent to the Dean of Graduate Studies for approval. In every case, approval will be given only if it is determined that the student has a reasonable chance of completing the program. If a graduate is disqualified a second time he or she may not be reinstated.

By University regulations, if a student does not register for two or more consecutive quarters for any reason, he or she must apply for readmission to CSUH and may be required to pay a fee.

GRADE REPORTS

At the end of each quarter, notification of the student's academic standing and report of the grades achieved while in attendance at the University are mailed to each student. Grades are normally mailed within one week following the last day of the term. If there are unpaid charges or other penalties reported against any student, transcripts of the student's work while at California State University, Hayward will be withheld. (This is called an encumbrance.)

Questions regarding grade reports, academic credit, or transcripts should be referred to the Office of Admissions and Records. If a student questions the grade he or she has received in a course, he or she should attempt to resolve the problem with the instructor. If he or she is not satisfied with the instructor's decision, he or she may discuss the problem further with the chair of the department in which the course is offered, then the Dean of the School offering the course. A Fairness Committee has been developed to protect both students and faculty members.

FAIRNESS COMMITTEE

The purpose of the Fairness Committee is to serve as an agency through which a student may seek relief from an instance of alleged unfair treatment in a course or academic program or alleged discrimination on the basis of sex, race, color, creed, age, religion, national origin or handicapped status. If a student is unable to resolve a difference with an instructor or other University representative through normal channels, the student may petition the Fairness Committee for a hearing. To initiate a grievance, the student (after a formal discussion with the instructor and his/her department chair, or with the University representative and his/her supervisor) must complete a "Petition for a Fairness Hearing Form" in an instance alleging an academic grievance, or a "Complaint Form" in a case alleging discrimination and file the petition or complaint with the Presidential Appointee to the Fairness Committee. The petition or complaint, along with any supporting documents submitted by a student and any responses, will be reviewed by the Fairness Committee. If, in the opinion of the Fairness Committee, a student has possible grounds for grievance, a hearing panel with faculty and student representation will be selected to review the charges contained in the petition or complaint. Additional information regarding the Fairness Committee may be obtained from the Presidential Appointee, the Director of Instructional Services, AD 945.

DEAN'S AND HONORS LISTS

Undergraduate students who achieve academic distinction in any academic quarter, as evidenced by a grade point average of 3.50-3.74 in 12 units or more in addition to any units graded CR/NC, are eligible for inclusion on the Honors List. Undergraduate students enrolled in at least 12 units in addition to any units graded CR/NC who achieve a grade point average of 3.75 or better for any academic quarter will be included on the Dean's List. To determine eligibility for graduation with honors, see *Graduation with Honors*, page 95.

ACADEMIC DISHONESTY

The University, like all communities, functions best when its members treat one another with honesty, fairness, respect and trust. Therefore, an individual should realize that deception for the purpose of individual gain is an offense against the members of the community. Such dishonesty includes:

Plagiarism

Although difficult to define, plagiarism consists in taking the words or specific substance of another and either copying or paraphrasing the work without giving credit to the source. For example:

1. Submitting a term paper, examination or other work written by someone else. This is a flagrant instance of plagiarism.

2. Failure to give credit in a footnote for ideas, statements of facts or conclusions derived by another.
3. Failure to use quotation marks when quoting directly from another, whether it be a paragraph, a sentence or even a part thereof.
4. Close and extended paraphrasing of another.

These are only some of the many forms plagiarism may take.

Cheating

Using unauthorized notes, study aids, or information from another student or student's paper on an in-class examination; altering a graded work after it has been returned, then submitting the work for re-grading; and allowing another person to do one's work and to submit the work under one's own name.

Fabrication

Presenting data in a piece of work which were not gathered in accordance with guidelines defining the appropriate methods for collecting or generating data and failing to include a substantially accurate account of the method by which the data were generated or collected.

Aiding and abetting dishonesty

Providing material or information to another person with knowledge that these materials or information will be used improperly.

Forgery, alteration or misuse of campus documents, records, or identification or knowingly furnishing false information to a campus

Altering documents affecting academic records; forging a signature of authorization or falsifying information on an official academic document, election form, grade report, letter of permission, petition, or any document designed to meet or exempt a student from an established University academic regulation.

Sanctions

Instances of alleged plagiarism or any other form of academic dishonesty may be referred to the Coordinator of Student Disciplinary Procedures (Dean of Students' Office) for action in accordance with the established disciplinary procedures for The California State University and Colleges System. Following procedures consonant with due process, a student may be placed on probation, suspended, expelled, or given a lesser sanction if he or she is found to have committed an act of academic dishonesty. The totality of the particular circumstances, the student involved, and any relevant mitigating factors shall be considered in every case.

Prevention

The above information is intended to inform students of the nature of academic dishonesty and its harm to the University community. Professors can discourage such acts by clearly defining and communicating expectations to their students. Class expectations and requirements should be meaningful to the student and appropriate to the subject.

UNDERGRADUATE GRADUATION REQUIREMENTS

General Education

The general education program is a planned sequence of courses outside the student's field of specialization. These scholastic experiences are designed to attempt to assure that each student who graduates with a baccalaureate degree possesses in the major fields of human knowledge the understanding, skills, and appreciation necessary for informed citizenship and continued growth and effectiveness as an educated person. The flexible design of the program allows the student, in most of the areas of knowledge, to select according to his/her needs and goals one of several paths which satisfy specific requirements.

For graduation with a baccalaureate degree, each student must complete a minimum of 76 quarter units of general education work. At least 36 units should be completed before attaining upper-division standing. A minimum of 16 units must be completed in the junior and senior years. Community College transfer students whose records are stamped to indicate completion of the 60 unit state requirement need only complete the 16 unit Upper Division General Education requirement at CSUH.

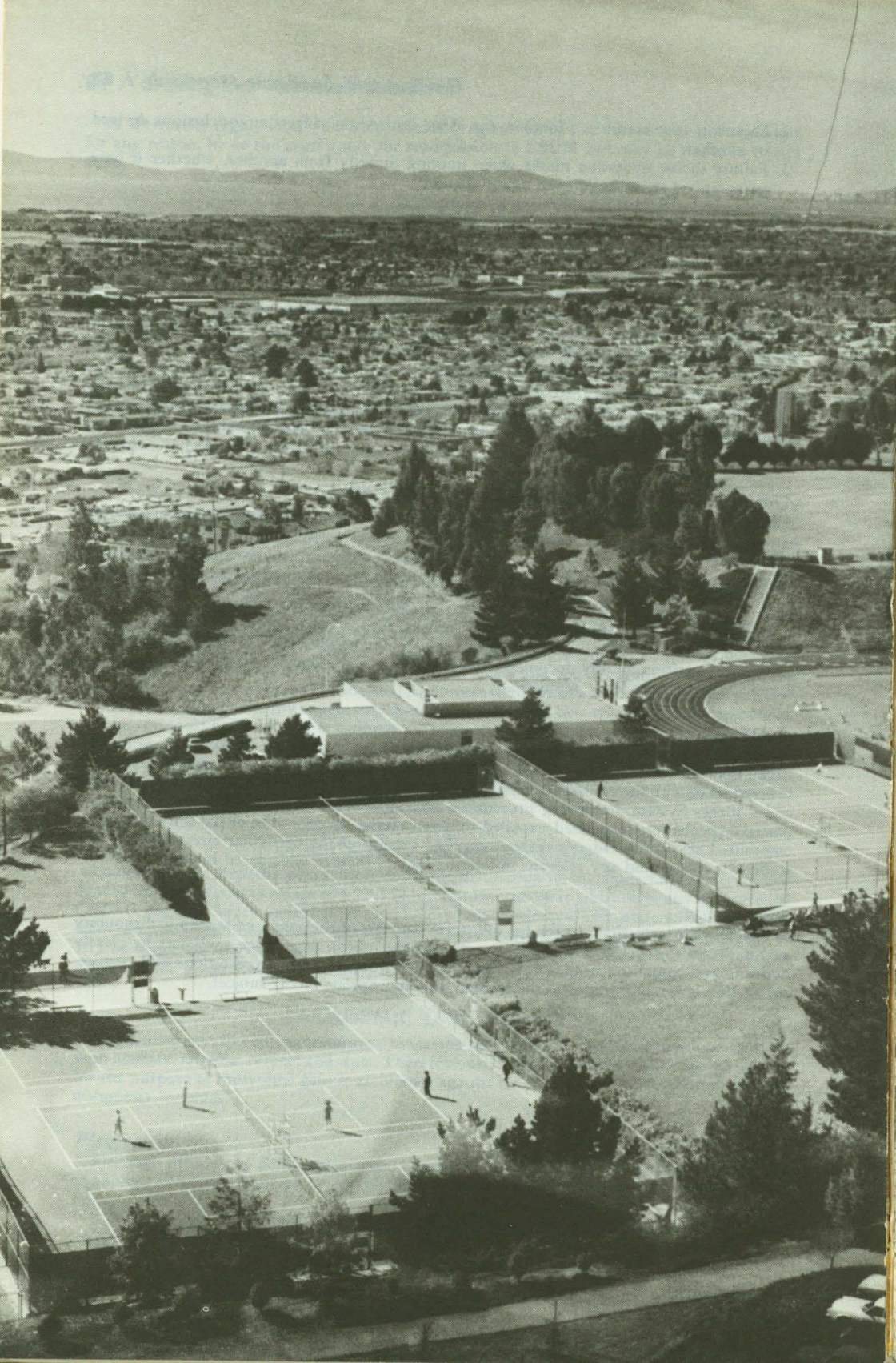
General Education—Breadth Requirements

A total of 76 units and a minimum of 17 courses are required in satisfaction of the General Education—Breadth requirements of California State University, Hayward. Courses required by the major, but not in the major department as designated by course prefix, may be applied to General Education, subject to the conditions given below. No course in the student's major department, as designated by course prefix (with the exception of English 1001), may be applied to the General Education—Breadth Requirements. No single course may be applied by the student to more than one requirement.

A student completing a double major must list a first and a second major on the Degree Candidate Card. (If the two majors lead to separate degrees, B.A. and B.S., the first major must be in the degree desired because a student may only receive one degree at a time.) General Education—Breadth requirements must be satisfied in relation to the first major. No separate General education certification is required for the second major. A student pursuing a second baccalaureate degree must also satisfy the General Education—Breadth Requirements in relation to the major in the second degree.

See Section V below for regulations pertaining to the relationship of Code requirements in U.S. history and institutions to General Education.

All General Education—Breadth requirements are subsumed in the Liberal Studies Major. Special Majors cannot apply any courses in their majors to the General Education—Breadth requirements.



The following new General Education—Breadth Requirements are effective Fall Quarter, 1978.

I. AREA REQUIREMENTS (48–56 units)

A minimum of twelve courses and 48 units is required. No more than fifteen courses and 56 units may be applied to the Area Requirements.

A. BASIC SUBJECTS (12–14 units)

A minimum of three courses and 12 units is required. No more than 14 units may be applied to the Basic Subjects Area requirement.

1. English Composition

a) English 1001, Expository Writing,
or

b) Successful completion of the entire sequence of Western Heritage, G.S. 1001–2–3 yields four units of English composition.

2. Two courses (8–10 units), outside the major department as designated by course prefix, from:

a) Lower Division Foreign Language courses,

b) Logic (Phil. 1001, 1002, 1011),

c) Mathematics

d) Speech Communication (Spch. 1000, 1004, 2411),

e) Statistics (all courses),

f) Successful completion of the entire sequence of Western Heritage, G.S. 1001–2–3, yields one course and four units in Basic Subjects which may be applied here if the English composition requirement is already satisfied.

B. HUMANITIES (12–16 units)

A minimum of three courses and 12 units is required. No more than four courses and 16 units may be applied to the Humanities Area requirement. No course in the major department, as designated by course prefix, may be applied to the Humanities Area requirement.

1. One course in appreciation, history, and/or theory of the Creative Arts:

a) Art (1010, 2020–30–40–50, 3071–2–3–4, 4001, 4031, 4040, 4041, 4050, 4051, 4071, 4081, 4090),

b) Dance (P.E. 3200, 3230, 3240),

c) Drama (1010, 2215, 2220, 3201–2–3, 3205, 3207, 3422, 4445, 4610, 4750, 4800),

d) Music (1008–9, 1031–2–3, 1801–2–3, 1901, 1910, 2031–2–3, 2112, 2155–6, 3031–2–3, 3041–2–3, 3051–2, 3115, 3155–6–7, 3370–80–90, 4027–8, 4031, 4041, 4054, 4055–6–7, 4064, 4110, 4120, 4410, 4425)

2. One course in letters (English and foreign literature, history, philosophy, and appropriate ethnic studies courses):

a) English literature, language, and linguistics (1813, 2030, 2040, 2259, 2817, 2818, 2819, 3005, 3010, 3020, 3040, and all upper division courses numbered above 3600 except 4070, 4075, 4080),

b) Foreign literature (upper division FLan courses),

c) History (all courses, excluding any applied by the student to the history and institutions code requirement),

d) Philosophy (all courses except Logic courses: Phil 1001–2, 1011),

e) Rhetorical theory and history (Spch. 4201–2–3),

f) Ethnic Studies (BISt. 1510, 2110, 3691–2, 3790, 4020, 4515–6; M.A.S. 1510, 3020; N.A.S. 2300, 2500).

3. At least one additional course from any of the above Humanities courses (except that no more than one ethnic studies course may be applied to the Humanities Area). Successful completion of one or more quarters of Western Heritage, G.S. 1001–2–3, will yield four units in satisfaction of this requirement. Successful completion of Asia 3011 will yield three units, of Asia 3011–2 will yield six units, and of Asia 3011–2–3 will yield eight units in satisfaction of this requirement.

C. NATURAL SCIENCES (12–16 units)

A minimum of three courses and 12 units is required. No more than four courses and 16 units may be applied to the Natural Sciences Area requirement. No course in the major department, as designated by course prefix, may be applied to the Natural Sciences Area requirement.

1. One course in Life Science:

a) Biological Sciences (all courses),

b) Marine Sciences (courses offered through Biological Sciences: M.Sc. 4102–3–4–5–6, 4111–2–3, 4121–2–3, 4131–2, 4171–2, 4175),

c) Psychology (all courses except 3413).

2. One course in Physical Science:

a) Chemistry (all courses),

b) Earth Sciences (all courses),

c) Marine Sciences (courses offered through Earth Sciences: M.Sc. 4101–2, 4141–2–3, 4151, 4171, 4410, 4510),

d) Physical Science (all courses),

e) Physics (all courses).

3. At least one additional course from any of the above Natural Sciences (except that no more than one Psychology course may be applied to the Natural Sciences Area) or from Mathematics or Statistics. No course in Mathematics or Statistics used by the student in the Basic Subjects Area may be used to also satisfy this requirement.

D. SOCIAL SCIENCES (12–16 units)

A minimum of three courses and 12 units is required. No more than four courses and 16 units may be applied to the Social Sciences Area requirement. Courses must be taken from at least two separate departments as designated by course prefix. No course in the major department, as designated by course prefix, may be applied to the Social Sciences Area requirement.

a) Anthropology (all courses),

b) Asian Cultures (successful completion of Asia 3011 yields one unit, Asia 3011–2 yields 2 units, and Asia 3011–2–3 yields 4 units; successful completion of one or more quarters of Asia counts as one course in satisfaction of the Social Science Area),

c) Economics (all courses),

d) Environmental Studies (all courses),

e) Geography (all courses)

f) Human Development (all courses),

g) Mass Communication (all courses except MCom. 2200, 2700, 3130, 3140, 3220, 3230, 3350, 3410, 4450, 4650),

h) Political Science (all courses, excluding any applied by the student to history and institutions code requirement),

i) Psychology (all courses excluding 3413; only one course in Psychology may be applied to the Social Sciences Area requirement),

j) Social Science (all courses),

k) Sociology (all courses),

l) Women's Studies (all courses),

m) Ethnic studies (one course only, selected from BISt. 1001–2–3, 2310, 2320, 2410, 3001–2–3, 3020, 3110, 4010, 4100, 4110, 4120, 4130, 4890, 4899; M.A.S. 2001–2–3, 4000, 4130, 4315, 4405; N.A.S. 2100, 2200, 3200, 3210, 3400, 4200, 4400),

n) Successful completion of two or three quarters of Western Heritage, G.S. 1001–2–3, will satisfy one course and four units in satisfaction of the Social Sciences Area requirement.

II. PERFORMING ARTS AND ACTIVITIES REQUIREMENT (4 units)

A minimum of one course and 4 units is required. No more than 4 units may be applied to this requirement. No course in the major department, as indicated by course prefix, may be applied to the requirement. Courses with predominantly performance and/or activity content are applicable to this requirement.

- a) Art (1111-2-3-4-5-6, 2601, 3141-2, 3212-3, 3301-2, 3401-2, 3512-3, 3601, 3701, 3801, 4110, 4143, 4301, 4402, 4514, 4801-2, 4851-9),
- b) Creative Writing (Engl. 2070, 3070, 3075, 4070, 4075),
- c) Drama (2010-1, 2150, 2310, 2485, 3010, 3012-3, 3150, 3170, 3610, 3650, 3918, 4011, 4021-2, 4181-2-4-5-7, 4310, 4415, 4421, 4422, 4650, 4655),
- d) Journalism (MCom. 2200, 3130, 3140, 3220, 3230, 3350, 3410, 4450, 4650),
- e) Music (1010, 1210-70, 1311-2-3-4-5-6, 2220-2, 2225, 2311-2-3-4-5-6, 2321-2-3, 2331-2-3, 2341-2-3, 2351-2, 2361, 3210-70, 5500-5550),
- f) Photography (MCom. 2700),
- g) Physical Education (3201-4, 3242-4, 4230, 4650, and all lower division courses except 1110 and 2600),
- h) Speech (1000, 1004, 1005, 2310, 2411, 2485, 3412, 3510, 3515, 4183, 4310, 4350; any course used by the student to satisfy Basic Subjects may not also be used to satisfy this requirement).

III. GENERAL EDUCATION ELECTIVES (0-8 units)

The units remaining between those taken above and a total of 60 units (0-8) must be taken outside the category to which the student's major is assigned. The category assignments are as follows:

1. Black Studies, English, Foreign Languages and Literatures, History, Latin American Studies, Philosophy, and Speech (excluding Speech Pathology/Audiology).
2. Biological Sciences, Chemistry, Earth Sciences, Health Sciences, Marine Sciences, Mathematics, Nursing, Physical Science, Physics, Science Education, and Statistics.
3. Anthropology, Geography, Human Development, Mass Communication, Mexican-American Studies, Native American Studies, Political Science, Psychology, Social Science, and Sociology.
4. Art, Drama, and Music.
5. Business Administration (Accounting, Management Sciences, Marketing), Criminal Justice Administration, Economics, Educational Psychology, Physical Education, Public Administration, Recreation, School Administration and Supervision, Speech Pathology/Audiology, and Teacher Education.
6. Asian Cultures, Environmental Studies, General Studies, Women's Studies.

IV. UPPER DIVISION GENERAL EDUCATION REQUIREMENT (16 units)

A minimum of four courses and 16 units is required subject to the following conditions:

1. The student must have attained Upper Division status, the successful completion of 90 quarter units of acceptable baccalaureate level coursework.
2. The courses can be of any class level, but must be taken at a baccalaureate degree-granting institution. No course applied by the student to the Area requirements, the Performing Arts and Activities requirement, or the G.E. Electives requirement may also be applied to U.D.G.E.
3. No more than 9 units can be taken in any one of the following six categories.
4. The student must select courses from categories other than the one to which his or her major is assigned except as noted in condition 5 below.
5. All students other than those majoring in Physical Education may apply up to 4 units in P.E. activity courses (listed in II.g. above) to the U.D.G.E. requirement and, for students with majors outside category 5, these are counted in the 9 units permissible in that category.
6. A student with a Special Major may select courses for the U.D.G.E. requirement from any U.D.G.E. category as long as conditions 1, 2, 3, and 5 are satisfied and the courses are not also used to fulfill any major requirements.
7. A student in the undergraduate teaching credential program may apply 16 units of courses in the Teacher Education 5300 series to the U.D.G.E. requirement.

Category Assignments for U.D.G.E. Purposes

1. Black Studies, English, Foreign Languages and Literatures, History, Latin American Studies, Philosophy, and Speech (excluding Speech Pathology/Audiology)
2. Biological Sciences, Chemistry, Earth Sciences, Health Sciences, Marine Sciences,

Mathematics, Nursing, Physical Science, Physics, Science Education, and Statistics

3. Anthropology, Geography, Human Development, Mass Communication, Mexican-American Studies, Native American Studies, Political Science, Psychology, Social Science and Sociology

4. Art, Drama, Music

5. Business Administration (Accounting, Management Sciences, Marketing), Criminal Justice Administration, Economics, Educational Psychology, Physical Education (note restrictions listed above), Public Administration, Recreation, School Administration and Supervision, Speech Pathology/Audiology, and Teacher Education

6. Asian Cultures, Environmental Studies, General Studies, and Women's Studies

- V. A maximum of 4 units taken to meet the code requirements in U.S. history and institutions may be applied to the General Education-Breadth requirements. These 4 units may be applied to either the lower division G.E. Electives or the Upper Division G.E. requirements, but not both. If an elective course satisfying the code requirements is to be applied to the General Education-Breadth requirements, it must be from a category outside that of the student's major as defined in the G.E. Electives and U.D.G.E. categories. No course satisfying the history and institutions code requirements may be applied by the student to the Humanities or Social Science Area Requirements.

TOTAL UNITS IN GENERAL EDUCATION 76

CALIFORNIA STATE UNIVERSITY, HAYWARD—GENERAL EDUCATION

G.E. CATEGORY	DEPARTMENTS & COURSES	UNITS	COURSES (must be outside major department)
BASIC SUBJECTS AREA	ENGL 1001 (also satisfied by completion of entire Western Heritage sequence, G.S. 1001-2-3)	4	1
	FLAN (lower division courses only) MATH (any courses) PHIL 1001, 1002, 1011 (logic courses only) SPCH 1000, 1004, 2411 STAT (any courses)	8-10	2
HUMANITIES AREA	ART 1010, 2020-30-40-50, 3071-2-3-4, 4001, 4031, 4040, 4041, 4050, 4051, 4071, 4081, 4090 DRAM 1010, 2215, 2220, 3201-2-3, 3205, 3207, 3422, 4445, 4610, 4750, 4800 MUS 1008-9, 1031-2-3, 1801-2-3, 1901, 1910, 2031-2-3, 2112, 2155-6, 3031-2-3, 3041-2-3, 3051-2, 3115, 3155-6-7, 3370-80-90, 4027-8, 4031, 4041, 4054, 4055-6-7, 4064, 4110, 4120, 4410, 4425 P E 3200, 3230, 3240	4	1
	BLST 1510, 2110, 3691-2, 3790, 4020, 4515-6 ENGL 1813, 2030, 2040, 2259, 2817, 2818, 2819, 3005, 3010, 3020, 3040, and all other upper division courses above 3600 except 4070, 4075, 4080 FLAN (upper division courses) HIST (any course unless used for History Institutions requirement) MAS 1510, 3020 NAS 2300, 2500 PHIL (any course except 1001-2, 1011) SPCH 4201-2-3	4	1
	Additional course(s) from the above (except only one ethnic studies course counts in Humanities) or completion of at least one course in Western Heritage (G.S. 1001-2-3). See also ASIA on next page.	4-8	1-2
NATURAL SCIENCES AREA	BIOL (any course) M SC 4102-3-4-5-6, 4111-2-3, 4131-2, 4171-2, 4175 PSYC (any course except 3413)	4-5	1
	CHEM (any course) E SC (any course) M SC 4101-2, 4141-2-3, 4151, 4171, 4110, 4510 PHSC (any course) PHYS (any course)	4-5	1
	Additional course(s) from the above (except only one psychology course counts in Natural Science) or from MATH or STAT	4-8	1-2

CALIFORNIA STATE UNIVERSITY, HAYWARD—GENERAL EDUCATION—Continued

G.E. CATEGORY	DEPARTMENTS & COURSES	UNITS	COURSES (must be outside major department)
SOCIAL SCIENCES AREA	Courses required in at least 2 departments: ANTH (any course) BLST (1001-2-3, 2310, 2320, 2410, 3001-2-3, 3020, 3110, 4010, 4100, 4110, 4120, 4130, 4890, 4899) ECON (any course) ENVT (any course) GEOG (any course) HDEV (any course) MCOM (any course except 2200, 2700, 3130, 3140, 3220, 3230, 3350, 3410, 4450, 4650) MAS 2001-2-3, 4000, 4130, 4315, 4405 NAS 2100, 2200, 3200, 3210, 3400, 4200, 4400 POSC (any course unless used for History-Institutions requirement) PSYC (any course except 3413; only one course counts in Social Sciences) SOSC (any course) SOC (any course) WOST (any course) Completion of two or three courses in Western Heritage (GS 1001-2-3) counts as one 4-unit course See also ASIA on next page.	12-16	3-4
PERFMG ARTS AND ACTIVITIES REQUIREMENT	ART 1111-2-3-4-5-6, 2601, 3141-2, 3212-3, 3301-2, 3401-2, 3512-3, 3601, 3701, 3801, 4110, 4143, 4301, 4302, 4514, 4801-2, 4851-9 DRAM 2010-1, 2150, 2310, 2485, 3010, 3012-3, 3150, 3170, 3610, 3650, 3918, 4011, 4021-2, 4181-2-4-5-7, 4310, 4415, 4421, 4422, 4650, 4655 ENGL 2070, 3070, 3075, 4070, 4075 MCOM 2200, 2700, 3130, 3140, 3220, 3230, 3350, 3410, 4450, 4650 MUS 1010, 1210-70, 131102-3-4-5-6, 2220-2, 2225, 2311-2-3-4-5-6, 2321-2-3, 2331-2-3, 2341-2-3, 2351-2, 2361, 3210-70, 5500-5550 P E 3201-4, 3242-4, 4230, 4650, and any lower division course except 1110 and 2600 SPCH 1000, 1004, 1005, 2310, 2411, 2485, 3412, 3510, 3515, 4183, 4310, 4350	4	1-4
ELECTIVES	Any course(s) outside category to which major is assigned (see lists on next page). Electives needed to bring total to this point to 60 units.	0-8	0-8
UPPER DIVISION (student must have U.D. status, course can be of any level but must be from 4-year school)	Any course(s) outside category to which major is assigned (see lists on next page). No more than 9 units in one category except T ED 5300 series, maximum of 4 units of P.E. activities available to any major except those in P.E.	16	4 minimum
TOTAL G.E.		76	17 minimum

CATEGORY ASSIGNMENTS FOR G.E. ELECTIVES AND U.D.G.E. PURPOSES

Black Studies, English, Foreign Languages and Literatures, History, Latin American Studies, Philosophy, Speech (excluding Speech Pathology courses SPCH 3852-3859, 4853-4866)

Biological Sciences, Chemistry, Earth Sciences, Health Sciences, Marine Sciences, Mathematics, Nursing, Physical Science, Physics, Science Education, Statistics

Anthropology, Geography, Human Development, Mass Communication, Mexican-American Studies, Native American Studies, Political Science, Psychology, Social Science, Sociology

Art, Drama, Music

Business Administration, (Accounting, Management Sciences, Marketing), Criminal Justice Administration, Economics, Educational Psychology, Physical Education, Public Administration, Recreation, School Administration and Supervision, Speech Pathology/Audiology (SPCH 3852-59, 4853-66), Teacher Education

Asian Cultures, Environmental Studies, General Studies, Women's Studies

The following General Education Area requirements are satisfied by the courses ASIA 3011-2-3:

ASIA 3011	Humanities Area elective, 3 units, 1 course Social Sciences Area elective, 1 unit, 1 course
ASIS 3011-2	Humanities Area electives, 6 units, 2 courses Social Sciences Area elective, 2 units, 1 course
ASIA 3011-2-3	Humanities Area electives, 8 units, 2 courses Social Sciences Area electives, 4 units, 1 course

Ethnic Studies

Because of the importance of ethnic cultures in the United States, the University recommends that every student take at least one course dealing with this area.

Transfer Students

CSUH will accept the certification by other colleges of the extent to which transfer students have met general education-breadth requirements as outlined in Title 5, California Administrative Code. Transfer students who have completed the general education-breadth requirements and whose transcripts are so certified will be required to meet the *Upper-Division General Education Requirement*, as explained above, and to complete a total of 76 units of general education.

Catalog Requirements Under Which a Student Graduates

A student remaining in continuous attendance and continuing in the same major at CSUH, at any other California state university or college, or in any California community college, or in any combination of California community and state colleges and state universities may elect to meet the CSUH graduation requirements in effect at the time of his/her entering the major or those in effect in any subsequent catalog up to and including the one in effect at the time of his/her graduation from CSUH except that substitutions for discontinued courses may be authorized or required by the proper CSUH authorities and that students interrupting enrollment will be limited to requirements in effect at the time of readmission or later.

Continuous attendance at quarter system colleges, including CSUH, is defined as three out of four continuous quarters including the summer quarter. That is to say, a student who is not in attendance for two or more consecutive quarters will come under the provisions of the catalog in force when he/she is next admitted to CSUH. Continuous attendance at a semester system college is defined as attendance in both the fall and spring semesters of each year.

Baccalaureate Degree Code Requirements

For graduation with the *Bachelor of Arts* or *Bachelor of Science* degree, a student must:

1. Satisfy the CSUH general education requirements as described in this section of the catalog.
2. Complete a major as described in this catalog.
3. Complete a minimum of 45 quarter units in residence (not extension or credit by examination) at CSUH. At least 36 of these units must be in upper division courses and 18 must be in the major. The University requires that students be in attendance at CSUH the last two quarters prior to graduation.
4. Complete a minimum of 186-198 quarter units of acceptable college credit, at least 60 quarter units of which must be in courses numbered 3000 or above. Units earned in Summer Session or concurrent enrollment may be substituted for regular session unit requirements. See page 50 for restrictions on extension and correspondence credit.
5. Attain a grade point average of "C" (2.0) or higher in:
 - (a) all units attempted at California State University, Hayward;
 - (b) all units attempted in the major (this calculation includes all courses required by a major regardless of whether or not they are taught in the major department);
 - (c) all units attempted, including those accepted by transfer from other colleges and universities.
6. In order to qualify for graduation from a California State University and College each student must satisfy the requirements established in Sec. 40404 of Title 5 of the California Administrative Code. Students at CSUH may meet this requirement by successful completion of an examination (contact the Testing Services Office for dates) or by taking certain sequences of courses. The requirement is in three parts: U.S. History, U.S. Constitution, and State and Local Government. The following courses satisfy all three: History 1101 (or History 3411 or 3412 or 3413) and 1102 (or History 3415 or 3416 or 3417 or 3500); or History 1108 and 1109; or Political Science 1201 and 1202. The U. S. History requirement is satisfied by History 3400; the U.S. Constitution by Political Science 3100; and State and Local Government by History 3500 or Political Science 3100 or Political Science 3120 or Political Science 3150.

Writing Skills Graduation Requirement

All students subject to degree requirements of 1977-78 and subsequent catalogs must demonstrate competency in writing skills as a requirement for graduation. Contact the Office of Undergraduate Studies for information on currently available methods for meeting this requirement.

Additional Baccalaureate Degrees

To qualify for an additional baccalaureate degree at CSUH, a student must:

1. Complete all requirements for a degree in the new subject area.
2. Complete a minimum of 45 quarter units in residence at CSUH after the award of previous degree; at least 36 of the units must be in upper division courses and at least 18 units must be in the subject field of the student's current major.
3. Comply with all current graduation requirements of CSUH, including the General Education requirement.
4. Complete the requirements for a major in a discipline other than that in which a previous degree was earned.
5. Receive the approval of his/her major adviser, the department chair of his/her major field, and the dean of the school involved.
6. Maintain at least a 2.0 (C) grade point average for all course work taken while pursuing the additional degree.
7. Attain a grade point average of "C" (2.0) or higher in:
 - (a) all units attempted at California State University, Hayward;
 - (b) all units attempted in the major;
 - (c) all units attempted, including those accepted by transfer from other colleges and universities.
8. No student may earn a second degree in the same major as that of the first degree.

Multiple Majors

If a student completes requirements for more than one major falling under one degree, B.A. or B.S., all majors completed by the student which lead to the single degree are listed on the diploma.

A student who has completed two majors leading to different degrees, for example History (B.A.) and Biology (B.S.), is required to declare one major as the degree major, in order to determine the appropriate *degree* to be awarded and the notation on the diploma. In no case will a student be granted two diplomas or two degrees, as distinguished from majors, at the same time.

All *majors*, minors, and options completed by a student are recorded on the transcript. Minors and options may be recorded on the diploma by request of students whose degrees have been earned since 1976.

Applying for Graduation

1. All degree candidates must complete a Candidate for Degree Card at registration for the quarter before the quarter in which they intend to graduate. Each student must then ask the major department to submit to the Office of Admissions and Records an official Major Check form listing all courses already completed for the major and those still required to complete the major. A student who does not file as a candidate and/or whose major check is not received one quarter prior to the intended date of graduation will have the date of graduation delayed, although the student may request a letter certifying that degree requirements have been met.
2. A Bachelor Degree Check Sheet will be prepared by the Office of Admissions and Records and mailed to the student along with a letter of instruction. The student is responsible for following these instructions.
3. If a student does not graduate in the term for which he/she has applied, he/she will automatically be transferred as a prospective graduate for up to two subsequent quarters. If the student does not graduate during either of the subsequent quarters, he or she must file another Candidate for Degree Card during registration for the term before the term in which he or she intends to graduate and arrange for a new major check to be submitted by the major department.
4. All changes in General Education requirements or major requirements (with their substitutions or waivers) must be submitted to the Office of Admissions and Records at least four weeks before the close of the term in which the student intends to graduate; otherwise the student's graduation will automatically be transferred to the next subsequent graduation date. G.E. questions should be referred to the Dean of Undergraduate Studies. Questions about major requirements should be referred to the major department. Forms for changes in General Education and major requirements are available in department offices.
5. The diploma may be ordered at any time after the Candidate for Degree Card has been submitted to the Office of Admissions and Records. The student completes a diploma order form in the CSUH Bookstore and pays a \$4.00 diploma fee. After all degree requirements are certified by the Office of Admissions and Records as having been completed, the diploma will be mailed or may be picked up by prior arrangement with that office. The diploma is normally ready six to eight weeks after this final clearance. During this period, the Office of Admissions and Records will issue a certificate of graduation if needed by the student.

The diploma is the official document certifying degree completion, it carries signatures of state and university officials, and it is presented in a case for display or is suitable for framing. The diploma includes the embossed seals of the CSUC system and of CSUH and provides the following information: student name; date degree conferred; major(s) completed in the degree conferred; any options or minors completed, if requested; and type of honors, if any. It is an official document not reproducible nor available in multiple copies. A student wishing to present proof of graduation may authorize the release of transcripts of the permanent record which show his or her complete academic history at CSUH.

Once graduation has been certified and the permanent record posted, the permanent record and the diploma can not be altered by grade changes, retroactive withdrawals, academic renewal, or other such circumstances unless an error has been made by the University. After graduation, a student may not receive a second diploma by completing another option in the same major nor will the permanent record and original diploma be altered to include a listing of the new option. Likewise, any minors completed after graduation will not be certified unless the student completes a second degree.

A student indicates on the diploma application the name as he or she wishes it to appear. If the name differs from the name of record, the Office of Admissions and Records may request official documentation of the change. Once the diploma has been issued, name changes will not be approved.

Honors at Graduation

1. A graduating student qualifies for one of the classifications of honors on the basis of maintaining the following grade point averages in *all* college work taken for the degree:

3.25-3.49.....	Honors
3.50-3.74.....	High Honors
3.75-4.00.....	Highest Honors
2. A graduating student qualifying for one of the classifications of honors must also maintain a 3.25 grade point average in work taken at Hayward.

Earning Graduate Credit While Still an Undergraduate

A student with a 2.0 grade point average earned at CSUH, during his/her final quarter of enrollment as an undergraduate student, may apply toward graduate credit a maximum of 13 units taken in the final quarter as an undergraduate student but beyond those required for graduation. Permission must be obtained prior to registration from the department chair in the area where the graduate credit is to be applied. Appropriate forms are available in the office of the department concerned. The approval form must be filed in the Office of Admissions and Records by the end of the late Add/Drop period of the term to which the form applies.

Multiple Degrees

Any units used to fulfill requirements for one degree (graduate or undergraduate) may not be used to meet the 45 unit residence requirement for a second baccalaureate. Students working for a second baccalaureate degree may earn up to 13 units of graduate credit for work done in the final quarter over and above the units required for the degree. The policy on earning graduate credit while an undergraduate applies to students working for either a first or second baccalaureate degree. A student may not be matriculated for an undergraduate and a graduate degree or two graduate degrees at the same time.

GRADUATE DEGREES AND REGULATIONS

Graduate study at California State University, Hayward assumes sound undergraduate training and pronounced academic capability. Graduate work demands advanced control of linguistic, mathematical or artistic tools. It is much more than mere classroom experience; it expects academic skill and individual, original research. The student must be able to initiate, organize and conclude projects of an analytical nature and he or she must be able to direct and generate his or her own study progress.

Every degree program consists of lecture courses, seminars and individual study. After curricular requirements have been met, there are comprehensive examinations and a special project or thesis. The department recommends the candidate for a degree and it may at all times assess his or her continuing performance and qualifications. It is assumed that the graduate student can respond to basic catalog instructions. The student is expected to secure a graduate adviser at the beginning of his or her program and to develop it in consultation with that adviser and in accord with departmental requirements.

Definition of Graduate Student

California State University defines as graduate students only those persons who have been admitted to a specific Master's Degree Program or who are in those Advanced Credential Programs of which a Master's Degree is a requirement.

Teaching Credentials

The teacher credential programs constitute a separate area of post-baccalaureate work, and applicants for such training and certification should address themselves to the Chair, Department of Teacher Education. See also, *Teacher Education* in this catalog.

Advanced Credentials

Advanced credentials can be earned separately or in conjunction with a Master's degree. Information regarding advanced credentials is given under the appropriate department headings in this catalog, as follows:

Teacher Education—specialist in bilingual/cross-cultural education, early childhood education, reading; community college instruction.

Educational Psychology—school counselor, school psychologist; specialist in special education; community college counselor.

School Administration and Supervision—administrative services.

Advancement to Candidacy

A graduate student is considered to be eligible for advancement to candidacy when the following requisites are fulfilled:

1. Is a classified student in good standing.
2. Has completed at least 12 quarter units of 6000 level courses with at least a 3.0 GPA.
3. Has been assigned a graduate adviser and/or a research adviser.
4. Has an adviser-approved formal program of study.
5. Is recommended for advancement by the graduate adviser subject to the approval of the department graduate coordinator.
6. Has completed other department prerequisites or qualifying examinations as specified.

MASTER'S DEGREE REQUIREMENTS

To be eligible for an advanced degree 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 seven years immediately preceding the completion of the requirements for the degree; (Outdated credits may be acceptable upon approval of the department(s) and the Dean of Graduate Studies; a comprehensive examination will be required as a condition for such approval);
 - b) not fewer than 32 must have been completed in residence;
 - c) not fewer than 22½ must have been in courses in the 6000 series;
 - d) no courses numbered 1000 to 2999 (or equivalent if taken elsewhere) may be used as part of the 45 unit graduate degree program;
 - e) not more than 9 may have been for a thesis and/or a project;
 - f) not more than 13 may have been for extension and/or transfer course credit;
 - g) not more than 13 quarter units may be earned as graduate credit while working for a baccalaureate degree, even if the student is in post-baccalaureate status. See page 95 for applicable University policy.
3. have completed a satisfactory program of study as determined by his or her department(s) and the Dean of Graduate Studies;
 4. have obtained a 3.0 grade point average in all 45 quarter units offered as satisfying the requirements of his or her degree program.

Applying for Graduation

1. All degree candidates must complete a Candidate for Degree Card at Registration for the quarter before the quarter in which they intend to graduate. Each student must then ask the major department to submit an official Major Check Sheet to the Office of Admissions and Records immediately.
2. A Master Degree Check Sheet will be prepared by the Office of Admissions and Records and mailed to the student along with a letter of instruction. The student is responsible for following these instructions.
3. If a student does not graduate in the term for which he/she applied, he/she will automatically be transferred as a prospective graduate for up to two subsequent quarters. If the student does not graduate during either of the subsequent quarters, he/she must file another Candidate for Degree Card during registration for the term before the term in which he/she intends to graduate and arrange for a new Major Check Sheet to be submitted by the major department.
4. All changes in major requirements (with their substitutions or waivers) must be approved by the Dean of Graduate Studies and submitted to the Office of Admissions and Records at least four weeks before the close of the term in which the student intends to graduate; otherwise the student's graduation will automatically be transferred to the next subsequent graduation date.

MASTER'S DEGREE THESIS WRITING REQUIREMENTS

1978-79 Thesis Deadlines

Fall Quarter—1978

November 17—Last day to submit Thesis (signed by Thesis Committee) to Graduate Office.

Winter Quarter—1979

February 23—Last day to submit Thesis (signed by Thesis Committee) to Graduate Office.

Spring Quarter—1979

May 18—Last day to submit Thesis (signed by Thesis Committee) to Graduate Office.

Summer Quarter—1979

August 10—Last day to submit Thesis (signed by Thesis Committee) to Graduate Office.

Course No. 6910—Thesis/Thesis Project requires selection and approval by Adviser and the student's Committee of a Thesis or Thesis Project topic and its satisfactory production in written and bound form.

The following rules do not apply to course No. 6899 Special Project. See your Department for rules governing Special Project.

Steps in Completing Thesis

The Candidate completing a thesis in pursuit of a Master's Degree agrees to:

1. Chair Approval:

Secure the approval of the Chair of his or her Thesis Committee of the thesis topic. The student is expected to work closely with his or her thesis Chair in selecting his or her thesis topic and in completing other details of his or her study. He or she may be helped, at this stage, by consulting other theses in the Library.

2. Preliminary Draft:

Submit a preliminary draft for his or her thesis Chair's approval. Some departments require the thesis be read critically by one or more persons in addition to the Adviser. The first draft copy should be corrected, legible and typewritten. It need not be completely free of erasures, hand-inserted corrections, or other minor irregularities; but it must be readable.

3. Department Approval:

Upon recommendation of the Thesis Committee, the draft *may* be approved by the Department Chair. This step is intended to signify that the thesis meets Departmental standards for content, expression, format, spelling, and general accuracy. Students are considered responsible for thesis preparation to meet the standards of those assigned to read and approve the thesis. *Thesis Chairs are not expected* to take their time to make extensive corrections or revisions. They are encouraged, instead, to return draft materials to the student with general instructions and suggestions for bringing them up to required standards. If technical writing assistance seems called for, it may be recommended by the Thesis Chair.

4. Thesis Typist:

Submit the approved draft to a typist. The approved draft of the thesis is then typed in *acceptable form*. The student is *strongly urged* to secure the services of a professional typist who is familiar with the regulations of California State University, Hayward. A list of such typists is available from the Graduate Studies Office. Some typists require that the draft material be marked to indicate departmental approval before typing the final form. Unless special arrangements are made, the typist is not required to, or expected to, correct errors of grammar or spelling.

5. Submission of Thesis to Graduate Studies Office:

Submit the original typed, signed copy of the thesis to the Graduate Studies Office. The Graduate Studies Office inspects theses for correctness of format, *but not content*, and arranges that they be bound and deposited in the University Library and Department. This final copy **MUST BE SIGNED** by the Chair and members of the student's thesis committee prior to submission to the Graduate Studies Office.

6. Deadline Dates:

It is **URGENTLY ADVISABLE** for students to submit their thesis *PRIOR* to the deadline dates shown on page 92. It is necessary to give the Graduate Studies Office sufficient time in which to give theses the technical check required by the University. If a thesis is submitted **AFTER THE DEADLINE DATE** it is very likely that the student may not earn his degree in the quarter he or she had applied for.

7. Copying the Thesis:

If the thesis is found to be acceptable, it will be returned to the student by the Graduate Studies Office, at which time the student is to have the thesis reproduced in order that there be the required number of bound copies for the University. Most students must file two copies of the thesis with the Graduate Studies Office for binding. One bound copy will be retained by the University Library; 1 copy will be retained by the student's department. However, some Departments require two copies in addition to the required one for the Library; check with your adviser regarding your department's requirements prior to copying your thesis. Students may submit any number of additional copies for binding for their personal use. It is important that every bound copy whether deposited in the University or not be of high quality. Therefore all copies submitted for binding must pass examination.

General Instructions, Style, and Directions for Thesis Typing

These directions have been prepared as an aid to Master's Degree Candidate-Student, and their typists. *Students are expected to provide their typists with a copy of these directions.* (Available free, in reprint form, from the Graduate Studies Office, Administration Building, room 795.)

8. Agreements:

Neither California State University, Hayward nor any of its separate offices or departments is responsible for matters concerning a student's relationships or agreements with any outside agency or individual. This means that neither the University nor any of its offices will take part in disagreements between students and typists concerning thesis or project typing services offered or expected, or costs billed or paid. Therefore, it is wise for the student and the typist to agree about such matters, preferably in writing, before beginning the work. Such agreements should include the typist's estimate of cost (based on the information given by the student and an estimate of time needed to prepare the thesis or project), as well as an understanding of responsibility for any retyping that may be required.

9. List of Typists and Copy Centers:

The Graduate Studies Office maintains a list of typists and copy centers who have filed information concerning their interest in typing and copying theses or project papers for graduate students. *Ask for a copy.* These lists are for the Graduate Student's convenience and in no way recommended by the Graduate Studies Office.

10. Time:

Time is critical during "*thesis season.*" Therefore, a student must allow enough time for his or her own preparation of the draft, consideration by his or her advisers, the original typing, and the inevitable corrections. Remember that the maximum for a typist is about eight pages an hour. There must also be time for proof-reading. Generally, only the most competent professional typists are able to spend more than four hours a day on a thesis.

11. Required Copies:

A minimum of two copies of the thesis must be turned in to the Graduate Studies Office for binding. One for the University Library and one for the student's Department. (*This may vary; check with individual Department as to their requirements.*)

12. Binding:

Thesis must be bound in red cloth and be stamped, on front and spine, in gold foil to show title and author. Binding is normally done by Artisan Bindery. *The student is responsible for correct page numbering and collating.* Because Artisan Bindery binds materials just as they are submitted, the student *must be sure* that the pages of each copy, including the signature page, *are properly assembled and that each copy is complete.*

13. Paper:

The paper to be used must be white in color and 8½" x 11" in size and of such quality as to insure the reproduction of perfect copies.

14. Type:

Use Pica Type. Elite type may be used for tables and graphs. Check sample of work by typist to be sure the type is not worn or off-register.

15. Mounting Plates and Photographs:

Artisan Bindery requests that plates and photographs **NOT BE MOUNTED PRIOR TO BINDING TO AVOID BUCKLED VOLUMES DUE TO UNEVEN THICKNESS.** Instead, the student should place a blank perforated sheet of paper before each captioned page on which a plate or photograph will be mounted. The perforated sheet is removed after binding, prior to mounting photographs, and will compensate for the thickness of the mounted items. Make sure that each page which will contain a plate or photograph has an appropriate caption, correctly centered. One complete set of plates and photographs must be submitted to the Graduate Studies Office with the original departmentally approved copy of the thesis. These plates and photographs should have the caption and the number of the page on which they will be mounted noted lightly in pencil on the back of each one. It will be the student's responsibility to **MOUNT HIS OR HER PLATES AND PHOTOGRAPHS IN ALL COPIES OF THE THESIS WHEN COPIES ARE RETURNED FROM THE BINDERY.** Consult the following reference in mounting: FORM AND STYLE, Theses, Reports, Term Papers/4th Edition, Campbell/Ballou, Houghton Mifflin Company, Boston: page 118, 138, 139, 140-141.

16. Photo-Reproduction:

Mechanically reproduced pages must meet the same criteria of permanency as typewritten pages. The student is advised *not to have reproductions made until after the thesis has been approved by the Graduate Studies Office.* In this way, if any corrections are required a large number of previously reproduced pages will not have to be redone. *Twenty-pound sulphite bond paper or better is acceptable for copies. Copies need to be perfect. All copies submitted for binding must pass examination.*

17. Hand-Written Symbols:

Those desiring to use hand-written symbols *must also obtain approval in advance from the Graduate Studies Office.* All such marks must be inserted with **BLACK PERMANENT INK; NOT BALLPOINT OR WATER SOLUBLE FELT-TIP PENS. ALL LINES IN TABLES OR GRAPHS MUST BE IN BLACK PERMANENT INK.** Pens such as **RAPID-O-GRAPH PEN** are excellent for this purpose.

18. Carbon Paper and Typewriter Ribbon:

If a student desires to have carbon copies made, a good grade of carbon paper is required. The weight will depend on the number of copies and the typist's touch. A hard platen on the typewriter will improve the quality of carbon copies. Carbon paper should be changed as often as necessary to make sure that all copies are easy to read. The supply of typewriter ribbon when typing is started should be sufficient to complete the thesis. **THE RIBBON SHOULD BE ROTATED ABOUT EVERY 40 PAGES TO AVOID SUDDEN CHANGES OF BLACKNESS.** If possible, a typewriter with a carbon ribbon should be used.

19. Format:

Unless the major department specifies otherwise, questions regarding format should be answered by consulting the following reference: FORM AND STYLE, Theses, Reports, Term Papers/4th edition, Campbell/Ballou, Houghton Mifflin Company, Boston 1974. It is the student's responsibility to learn which particular format is required by the University and/or his or her Department and to provide his or her typist with a copy of the rules it employs if he or she does not already have one.

20. Special Format Theses:

Theses of unusual size or shape, or those which include special information, tape recordings of music for example, must be approved by the Graduate Studies Office. Music theses which might contain original musical scores, copies of music scores, and/or lengthy music manuscripts, must be approved by the Graduate Studies Office.

21. Punctuation:

Proper punctuation should be used to clarify the text and prevent confusion. Because the thesis is written in formal English, closed punctuation is preferred to open punctuation.

22. Spelling:

American spelling should be used throughout. British spelling, unless used in quoted material, is **UNACCEPTABLE.**

23. Word Division:

Incorrect word divisions are among the most common errors in theses. For accuracy in this respect, all divided words in the text of a thesis should be checked against a standard dictionary or a reference such as *20,000 Words, (Spelled and Divided for Quick Reference)* by Louis A. Leslie (5th ed.) Gregg Division (New York: McGraw-Hill Book Co., 1965).

24. General Information:

A thesis should be written in a formal, scholarly manner. It is ". . . a formal presentation of what is presumed to be an objective, unbiased, investigation; therefore, it should be written at the formal level of standard English." Above all, the student should be consistent in matters of style, usage, and punctuation. He or she may wish to refer to one of the standard references on English usage to clarify certain points. Most major publishers (for example, Macmillan, Harcourt-Brace, or Harper and Row), publish handbooks on English usage which also might be helpful to the thesis writer.

25. Binding Costs:

At the present time, binding is done by the Artisan Bindery, Inc. Costs are as follows:

THESIS SIZE	
Up to 2" Thickness per copy:	\$7.50
2" Thickness and over per copy:	\$8.50

- 2 1/2" Thickness and over per copy: \$9.50
- 3" Thickness and over per copy: \$15.00
- Rush Jobs (10 day work) 1.50 per copy
- Manila Pockets (for manuscripts, maps, etc.): 2.00 per copy

Theses which present complex binding problems (such as theses submitted by candidates for the M.A. in Biology and Music) may cost somewhat more. A check made out to the *Artisan Bindery* must accompany the thesis when it is finally presented to the Graduate Studies Office, completed, corrected, properly collated, including all copies, and ready to be sent to the Bindery. Be sure the amount of the check is correct for the number of theses being bound and is made out to *Artisan Binery*. **NOTE: Costs are subject to change without notice.**

Checking the Manuscript

26. Proofreading:

The thesis should be carefully proofread by both the typist, writer, and the student's committee before it is submitted to the Graduate Studies Office. The Graduate Studies Office *does not proofread theses word for word*, it inspects theses for correctness of format (but not content). Such proofreading will usually reveal typographical errors, misspellings, and inconsistencies of style and punctuation and thus preclude the need to make extensive corrections after the thesis is read. Because most thesis writers are more concerned with content than with form, it may be helpful to proofread the final copy from back to front. In this way, continuity will be broken and the writer may be able to concentrate more upon matters of form, style, and usage. The writer should also check all text references to be sure that they are included in the bibliography completely and correctly.

27. Unacceptable Items:

Theses may be safeguarded from rejection by having the final manuscript free from any of the following:

STRIKEOVERS, MESSY ERASURES, INCORRECT WORD DIVISIONS at ends of lines, pages for which no numbers are assigned or entered, errors in hyphenation, *MIS-SPELLED WORDS, SMEARED COPY, INCONSISTENCIES* in style, *CARELESS SPACING OR CENTERING*, and evidences of *DIRTY TYPE* (the most frequent offenders are "e" and "a").

28. Elements of a Thesis:

The procedural steps in writing a thesis are as follows:

- | | |
|---------------------|-------------------------------|
| a) Title page | g) Table of Contents |
| b) Copyright page | h) List of Tables and Figures |
| c) Abstract | i) List of Plates or Photos |
| d) Approval Sheet | j) Text |
| e) Preface | k) Bibliography |
| f) Acknowledgements | l) Appendix |

for a more detailed description of above see FORM AND STYLE, Theses Reports, Term Papers/4th edition, Campbell/Ballou, Houghton Mifflin, 1974.

29. Titles and Title Page:

The thesis title page should be arranged in a manner similar to the sample on the next page. The title should be in full capital letters, properly spaced, with a wider margin on the left or binding edge (see item 35), and placed 10 single spaces from top of page.

NOTE: Artisan Bindery has put a *limitation* on length of thesis titles. *There can only be 75-85 letters including spaces in thesis titles.* If you must use more than 85 spaces in your title, prepare a statement to Artisan Bindery giving abbreviated title to be imprinted on spine of bound thesis. If your title cannot be abbreviated, be prepared to pay extra charges for lengthy title.

30. Abstract:

The abstract should include a definitive statement of the problem; a brief description of research method and design; major findings, including significance or lack thereof; and conclusions. It is limited in length: one or more pages, 1,000 or 1,500 words, or something similar. The student should ascertain the department requirements regarding the abstract.

The top sample page shows a title page with the following layout:

- Top margin: (10 single spaces from top of page)
- Title: THESIS TITLE (No more than 85 letters)
- Author: Prudence P. Jones
- By: Prudence P. Jones
- Right margin: (11 single spaces)
- Bottom margin: (12 single spaces)
- Approval area: Approved: _____ (3 single spaces), _____ (2 single spaces), _____ (2 single spaces)
- Date: _____

The bottom sample page shows a more detailed title page with the following layout:

- Top margin: (10 single spaces from top of page)
- Title: THESIS TITLE (No more than 85 letters)
- Author: Prudence P. Jones
- By: Prudence P. Jones
- Right margin: (6 single spaces)
- Bottom margin: (6 single spaces)
- Approval area: Approved: _____ (3 single spaces), _____ (4 single spaces), _____ (4 single spaces)
- Date: _____

31. *Signature Page:*

The signature page, with spaces for names of those giving final approval to the manuscript for the Department, follows immediately after the title page (providing the student does not include a copyright page or an abstract). The student should learn from his or her Adviser *how many signature lines are needed* for departmental approval. A sample signature page follows.

32. *Type Size:*

Pica is to be used. (Pica type—10 letters per inch of typed material.) Elite may be used for tables only. (Elite type—12 letters per inch of typed material.)

33. *Type Face:*

Not permissible—Script.

34. *Spacing:*

Manuscripts should be double-spaced. Extended quotations, bibliographies, footnotes, and other material are single spaced with a double space between items. The first line of a paragraph of the text, a paragraph of quoted material, and a footnote are all indented the same distance from the left margin, *eight spaces*. For long single-spaced quotations, a new margin is established *four spaces* to the right of the regular left margin of the text; even in this case, however, the first line of each paragraph is indented eight spaces from the original left margin. (See SPACING, for additional information FORM AND STYLE, Campbell/Ballou, page 159–160).

35. *Margins:*

The *left or binding edge margin* of thesis pages should be at least *one and one-half inches* (1½"); also there should be at least *one inch* (1") on the *right margin* and *one and one-fourth inches* (1¼") at the *top and bottom* of each page.

36. *Pagination:*

All pages in the thesis should be assigned numbers except the blank sheets at the front and back. The initial page of any major subdivision of the thesis—such as the first page of a chapter and the first page of the bibliography—has the *page number placed at the bottom in the center 1¼" up from the bottom of the page*; other pages have their numbers *in the upper right hand corner on the fifth single space from the top of the page and aligned with the right margin. Do not place periods or dashes before or after page numbers!* The student is responsible for correct page numbering and collating. (FORM AND STYLE, Campbell/Ballou page 22.) *The student must be sure that the pages of each copy, including the signature page, are properly assembled.* Proper collating of the student's thesis is *not* the responsibility of the Graduate Studies Office. *Do not depend on copy centers to collate theses: This is the responsibility of the student.*

37. *Footnotes:*

The standard practice is to collect at the *bottom of each page, all the footnotes for citations made on that page*. Each footnote should be indented as a paragraph and single-spaced. When two or more footnotes appear at the bottom of any one page, a double space should be left between them. *Separate footnotes from the text by a line one and one-half inches long* (15 pica spaces), beginning at the left margin and *one double space below the last line of textual material*. (FORM AND STYLE, Theses, Reports, Term Papers/4th edition, page 49–78)

38. *Cover Sheets:*

A blank sheet of paper must be placed at the front and back of the thesis (before the title page and after the last page of text or appendix). These pages should be of the same quality of paper as those used for typing the thesis.

39. *Copyrighting Theses:*

Information on copyrighting theses accepted for a degree is as follows: As the author of a thesis, *PRIOR TO ITS PUBLICATION*, you hold commonlaw copyright in it. No one can legally copy it without your consent prior to publication. When your bound thesis has been shelved in the University Library, *IT HAS BEEN PUBLISHED*. It need not be printed in order to be PUBLISHED.

PUBLICATION VOIDS THE COMMON-LAW COPYRIGHT. If you wish to protect your right further, **YOU MUST OBTAIN STATUTORY COPYRIGHT AT THE TIME YOU SUBMIT YOUR THESIS FOR BINDING.**

STATUTORY COPYRIGHT can be obtained by entering a copyright notice on the page following the title page of the thesis as follows:

Copyright © 19_____ (year)

by _____

(Your name as it appears on title page)

If you wish to copyright your thesis in this way, prepare a single page bearing this copyright notice for each copy of your thesis, including those you may retain for yourself, file in a department, or give to other persons. This page should be inserted in the thesis immediately **FOLLOWING THE TITLE PAGE**. The thesis is then copyrighted when published (shelved in the Library).

In order to **ENFORCE COPYRIGHT** (in case of infringement) a copyright must be registered with the United States Copyright Office. Registration must be accomplished within a reasonable period of time. Since decisions by others whether or not to copy a manuscript are often guided by the existence of a registered copyright, prudence dictates that you register the copyright soon after publication (i.e., shelving). **REGISTRATION IS EFFECTED BY DEPOSITING COPYRIGHTED COPIES OF THE WORK IN ACCORDANCE WITH FORMS OBTAINABLE FROM THE LIBRARY OF CONGRESS, WASHINGTON, D.C.** There is a fee of \$6.00 for registration. **YOU ARE RESPONSIBLE FOR REGISTRATION OF COPYRIGHT: THE GRADUATE STUDIES OFFICE WILL NOT ACCOMPLISH IT FOR YOU.**

40. *Reference Manuals:*

The following manuals are used by the Graduate Departments at California State University, Hayward:

Form and Style, Theses, Reports, Term Papers/4th Edition:

Campbell/Ballou	All Departments
<i>Publication Manual of the American Psychological Association</i> ,	
APA, Inc, Washington, D.C.	Educational Psychology Department
<i>The MLA Style Sheet, 2nd ed.</i> ; MLA, New York	English Department
Kate L. Turabian, <i>A Manual for Writers of Term Papers, Theses & Dissertations</i> , 3rd ed,	
revised; University of Chicago Press	History Department
	School of Business and Economics
"Editorial Policy Statement" (reprinted from) <i>Annals of Association of American Geographers</i> , Vol. 60,	
No. 1, March 1970.....	Geography Department

Credit for Courses Numbered 6910, Thesis/Thesis Project

- Thesis or Thesis Project has the course designation 6910.
- Enrollment in Thesis or Thesis Project is allowed only after a student has attained classified status.
- The maximum total number of units for Thesis or Thesis Project in any program is nine.
- A student will not receive credit for more units of Thesis or Thesis Project than allowed by the degree program.
- A grade of SP (Satisfactory Progress) will be assigned for those units in any one quarter until the Thesis or Thesis Project is completed. At that time a final grade covering the entire course will be assigned by the Department. The Records Office will then change the previous SP grade(s) to the final grade assigned.

Credit for Courses Numbered 6899, Special Project

- a) Special Project will have the course designation 6899.
- b) Enrollment in Special Project is allowed only after a student has attained classified status.
- c) The maximum total number of units for Special Project in any program is five.
- d) A student will not receive credit for more units of Special Project than allowed by the degree program.
- e) A grade of SP (Satisfactory Progress) will be assigned for those units in any one quarter until the Special Project is completed. At that time a final grade covering the entire course will be assigned by the Department. The Records Office will then change the previous SP grade(s) to the final grade assigned.

Disposition of Units in Thesis/Thesis Project, Course 6910, and Special Project, Course 6899

- I. Units earned in Course 6910, or in Course 6899 may not be used as part of the 45-unit graduate degree program unless a thesis or project is actually submitted as partial fulfillment of the program.
- II. If a student changes from a program with thesis requirement to a program with a Special Project requirement, or vice-versa, the combined registration for 6910 and 6899 may not exceed 9 units.
- III. 6910 or 6899 units which are part of the degree program will be given an appropriate letter grade at the time the Thesis or Special Project is approved.
- IV. Any cases not covered by the foregoing shall be handled by petition submitted to the Dean of Graduate Studies by the Chair of the student's Department.

Disposition of SP Grades in Courses Organized Solely for the Preparation of Theses or Special Projects

- I. Until replaced by a letter grade A, B, C, D, or F, the grade of SP shall remain on the student's record without change.
- II. No units for which a grade of SP is still on the record shall be counted in the student's Grade Point Average.
- III. No units for which a grade of SP is still on the record shall be counted in fulfillment of degree requirements.

ADDITIONAL MASTER'S DEGREE

A student who desires to work for an additional master's degree:

- 1. must receive the permission of the department offering the degree;
- 2. must receive the permission of the Dean of Graduate Studies;
- 3. must satisfy all prerequisites and requirements for the new degree;
- 4. must complete at least 32 units of work in the new program, but a total of 45 units must be completed; and
- 5. will be advanced to candidacy for the new degree only after the prior degree has been awarded.
- 6. may not be awarded the new master's degree at the same Commencement at which the prior master's degree is conferred.

GRADUATE ASSISTANTSHIPS

A limited number of Graduate Assistantships are available each year. Students interested in receiving Graduate Assistantships should write directly to the department housing the degree. Only students who are actively enrolled in a program leading to the Master's degree may be appointed as Graduate assistants.

PART II

PROGRAMS OF STUDY

ACADEMIC PROGRAMS

CSUH offers major programs leading to the baccalaureate degree in 37 fields of study (in addition to Special Majors) and the master's degree in 20 fields. Other programs lead to teaching, pupil personnel services, and supervisory credentials.

CSUH Undergraduate Degree Majors and Options (1978-1979)

- | | |
|--|---|
| Anthropology, B.A. | German, B.A. |
| Archeology and Biological Anthropology Option | German Language and Literature Option |
| Socio-Cultural Anthropology Option | German Studies Option |
| Art, B.A. | Health Sciences, B.S. |
| Art History Option | Occupational Health Option |
| Studio Option | History, B.A. |
| Biological Science, B.S. | Human Development, B.A. |
| General Option | Latin American Studies, B.A. |
| Biomedical Laboratory Sciences Option | Liberal Studies, B.A. |
| Black Studies, B.A. | Art Option |
| Humanities, History, Performing Arts Option | Bilingual-Cross Cultural Option |
| Economics, Political and Social Issues Option | Biological Science Option |
| Business Administration, B.S. | Black Studies Option |
| Accounting Option | Chemistry Option |
| Finance Option | Drama Option |
| General Option | Earth Sciences Option |
| Industrial Relations and Personnel Administration Option | English Option |
| Information Systems Management Option | Foreign Languages Options
(French, German, Italian, Latin, Portuguese, Russian, Spanish) |
| Marketing Management Option | Human Development Option |
| Production and Operations Management Option | Latin American Studies Option |
| Real Estate Management Option | Mass Communication Option |
| Chemistry, B.A. | Mathematics Option |
| Biochemistry Option | Music Option |
| General Option | Social Sciences Option
(Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology) |
| Chemistry, B.S. | Speech Option |
| Criminal Justice Administration, B.S. | Speech Pathology and Audiology Option |
| Corrections Option | Mass Communication, B.A. |
| Law Enforcement and Administration Option | Mathematics, B.S. |
| Drama, B.A. | Computer Science Option |
| Acting-Directing Option | General Option |
| Child Drama Option | Mathematics of the Physical Sciences Option |
| General Option | Mathematics of the Social and Management Sciences Option |
| Technical Option | Secondary Teaching Option |
| Earth Sciences, B.S. | Mexican-American Studies, B.A. |
| Economics, B.A. | Music, B.A. |
| English, B.A. | Nursing, B.S. |
| Environmental Studies, B.A. | Philosophy, B.A. |
| French, B.A. | Physical Education, B.S. |
| Geography, B.A. | Dance Option |
| Geography, B.S. | Physical Education Option |

Physical Science, B.S.
 Physics, B.A.
 Physics, B.S.
 Political Science, B.A.
 Political Science Option
 Public Affairs and Administration Option
 Psychology, B.A.
 Biological Psychology Option
 Psychology in Education Option
 Human Information Processing Option
 Personality Development and Clinical Processes Option

Quantitative Methods Option
 Social Behavior Option
 Recreation, B.S.
 Sociology, B.A.
 Social Services Option
 Sociology Option
 Spanish, B.A.
 Special Major, B.A.
 Special Major, B.S.
 Speech, B.A.
 Speech Pathology and Audiology, B.S.
 Statistics, B.S.

**CSUH Minors
 1978-1979**

American Studies
 Anthropology
 Art
 Business Administration
 Chemistry
 Computer Science
 Creative Writing
 Dance
 Drama
 Earth Sciences
 East Asian Studies
 Economics
 English
 Environmental Studies
 French
 Geography
 German
 History
 Italian

Mass Communication
 Mathematics
 Native American Studies
 Philosophy
 Physics
 Political Science
 Portuguese
 Psychology
 Religious Studies
 Russian
 Sociology
 South Asia Studies
 Spanish
 Speech
 Speech Pathology and Audiology
 Urban Studies
 Women's Studies

**Other Programs
 1978-1979**

Asian Cultures: South Asia
 Coaching Certificate

General Studies
 Western Heritage

**CSUH Graduate Degree Majors and Options
 1978-1979**

Anthropology, M.A.
 Biological Science, M.A.
 Business Administration, M.B.A.
 Accounting Option
 Finance Option
 Management Sciences Option
 Marketing Management Option
 Taxation Option
 Business Administration, M.S.
 Quantitative Business Methods Option
 Chemistry, M.S.
 Biochemistry Option
 General Option
 Counseling, M.S.
 Clinical Counseling Option
 School Counseling Option
 School Psychology Option
 Earth Sciences, M.S.
 Environmental Geology Option

Economics, M.A.
 Education, M.S.
 Curriculum Option
 Early Childhood Education Option
 Educational Psychology Option
 Reading Instruction Option
 School Administration and Supervision Option
 Special Education Option
 English, M.A.
 French, M.A.
 Geography, M.A.
 History, M.A.
 Examination Option
 Media Option
 Thesis Option
 Mathematics, M.S.
 Music, M.A.
 Physical Education, M.S.
 Physics, M.S.

Public Administration, M.P.A.
 Academic Option
 Public Management Option
 Public Policy Development Option
 Voluntary and Community Organization Option

Sociology, M.A.
 Special Major, M.A.
 Special Major, M.S.
 Speech, M.A.
 Rhetoric and Public Address Option
 Statistics, M.S.

CREDENTIAL WAIVER PROGRAMS

Programs submitted by the departments and committees listed below have been approved by the State Commission for Teacher Preparation and Licensing as waivers for the subject matter examinations. Please note that waiver programs do not necessarily coincide with majors. Please consult the departmental listings for descriptions of the individual waiver programs.

<i>Public School Subject</i>	<i>Department or Committee Submitting Program</i>
Art	Art
English.....	English
English/Drama-Theatre.....	Drama
English/Journalism.....	Mass Communication
English/Speech	Speech
Foreign Languages (French, German, Spanish)	Foreign Languages and Literatures
Government	Political Science
History	History
Life Science	Biological Sciences
	Human Development
Mathematics	Mathematics
Multiple Subject	Liberal Studies
Music	Music
Physical Education	Kinesiology and Physical Education
Physical Science	Chemistry
	Earth Sciences
	Physical Science
Social Science.....	History
	Human Development
	Latin American Studies

ACADEMIC ORGANIZATION

California State University, Hayward is organized into four schools: Arts, Letters and Social Sciences (ALSS); Business and Economics; Education; and Science. Each school has significant responsibility for its own curricula, faculties, students, and budgets. The school dean, aided by one or more associate deans and administrative assistants, is the chief administrative officer of each school. (The names of these officers appear on pp. 16-17.) The Deans' offices are located as follows: ALSS, eighth floor of the Administration Building (881-3161); Business and Economics, second floor of the Music Building (881-3311); Education, first floor of the Fine Arts Building (881-3072); and Science, first floor of the North Science Building (881-3441). Inter-school interdisciplinary programs are administered by the Dean of Undergraduate Studies on the eighth floor of the Administration Building. The organizational table on page 117 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 15 departments in addition to several interdisciplinary programs. It embraces the creative arts, the humanities, the social and behavioral sciences, ethnic studies, area studies, and several applied disciplines.

CURRICULA OFFERED

Master's Degrees

Anthropology (M.A.)
 English (M.A.)
 French (M.A.)
 Geography (M.A.)
 History (M.A.)
 Examination Option
 Media Option
 Thesis Option
 Music (M.A.)
 Public Administration (M.P.A.)
 Academic Option
 Public Management Option
 Public Policy Development Option
 Voluntary and Community
 Organization Option
 Sociology (M.A.)
 Examination Option
 Thesis Option
 Speech (M.A.)

Baccalaureate Degrees

Anthropology (B.A.)
 Archeology and Biological
 Anthropology Option
 Socio-Cultural Anthropology
 Option
 Art (B.A.)
 Art History Option
 Studio Option
 Black Studies (B.A.)
 Humanities, History, Performing Arts
 Option
 Economics, Political and Social Issues
 Option

Criminal Justice Administration (B.S.)
 Corrections Option
 Law Enforcement and Administration
 Option
 Drama (B.A.)
 Acting-Directing Option
 Child Drama Option
 General Option
 Technical Option
 English (B.A.)
 Environmental Studies (B.A.) *
 French (B.A.)
 Geography (B.A., B.S.)
 German (B.A.)
 German Language and Literature
 Option
 German Studies Option
 History (B.A.)
 Human Development (B.A.)
 Latin American Studies (B.A.) *
 Mass Communication (B.A.)
 Mexican-American Studies (B.A.) *
 Music (B.A.)
 Philosophy (B.A.)
 Political Science (B.A.)
 Political Science Option
 Public Affairs and Administration
 Option
 Sociology (B.A.)
 Social Services Option
 Sociology Option
 Spanish (B.A.)
 Speech (B.A.)
 Speech Pathology and Audiology (B.S.)

* An interdisciplinary major.



Academic Minors

American Studies
 Anthropology
 Art
 Creative Writing
 Drama
 East Asian Studies
 English
 Environmental Studies
 French
 Geography
 German
 History

Italian
 Mass Communication
 Native American Studies
 Philosophy
 Political Science
 Portuguese
 Russian
 Sociology
 South Asia Studies
 Spanish
 Speech
 Speech Pathology and Audiology

Other Programs

Comparative Studies in Asian Cultures

SCHOOL OF BUSINESS AND ECONOMICS

The School of Business and Economics offers programs to achieve the following objectives: (1) develop the knowledge of theory and techniques of management, with emphasis on analytical processes and decision making, to prepare students for professional careers in business or economics; (2) provide a stimulus to lifelong study and learning and a foundation upon which a student can build higher degrees; (3) provide an environment conducive to improved teaching performance, research, and continued professional development on the part of the Faculty; (4) develop close, effective relations with, and provide appropriate services to, business and the communities in our region.

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

CURRICULA OFFERED**Master's Degrees**

Business Administration (M.B.A.)
 Accounting Option
 Finance Option
 Management Sciences Option
 Marketing Option
 Taxation Option
 Business Administration (M.S.)
 Quantitative Business Methods Option
 Economics (M.A.)

Academic Minors

Business Administration
 Economics

Baccalaureate Degrees

Business Administration (B.S.)
 Accounting Option
 Finance Option
 General Business Option
 Industrial Relations and Personnel Administration Option
 Information Systems Management Option
 Marketing Management Option
 Production and Operations Management Option
 Real Estate Management Option
 Economics (B.A.)

SCHOOL OF EDUCATION

The School of Education offers programs for the professional education of teachers and service personnel in schools, colleges, and community agencies; and for liberal arts instruction and professional preparation of undergraduates in the fields of kinesiology and physical education and recreation. Advanced preparation and graduate degrees are designed to deepen knowledge, upgrade professional skills, and prepare for doctoral study. The professional programs of the School are accredited by the National Council for Accreditation of Teacher Education.

Credentials

Programs to prepare teachers, counselors, school psychologists, special educators, and supervisors and administrators have been approved by the State Commission for Teacher Preparation and Licensing (Ryan Commission). Information regarding specific requirements for each credential is available through the appropriate department.

1. Basic Teaching Credential Programs**a. Multiple Subject.**

In addition to the regular multiple subject program, an optional bilingual emphasis program is available for qualified students.

b. Single Subject, which enables the credential holder to teach one or more of the following in grades 12 and below:

Art	History
English	Life Science
(including alternative programs in Drama-Theatre, Journalism, and Speech)	Mathematics
Foreign Languages	Music
(French, German, Spanish)	Physical Education
Government	Physical Science
	Social Science

2. Specialist Credential programs. These are to be obtained concurrent with or (more often) after obtaining a basic credential.**a. Bilingual/Cross-Cultural Education****b. Early Childhood Education****c. Reading Instruction****d. Special Education. Areas of emphasis: severely handicapped, learning handicapped.****3. Services Credentials programs****a. Administrative Services****b. Pupil Personnel Services**

(1) School Counselor

(2) School Psychologist

4. Community College Credentials**a. Community College Instructor Credential****b. Community College Counselors Credential****c. Community College Student Personnel Workers Credential**

At the present time all community college credentials are issued on direct application to the Credentials Section, Community Colleges Board of Governors, 1238 S Street, Sacramento 95814.

CURRICULA OFFERED**Master's Degrees**

Counseling (M.S.) with options in:

Clinical Counseling

School Counseling

School Psychology

Education (M.S.) with options in:

Curriculum:

Areas of emphasis: children's literature, environmental education, mathematics education, multicultural education

Baccalaureate Degrees

Physical Education (B.S.) with options in:

Dance

Physical Education

Recreation (B.S.)

Early Childhood Education

Educational Psychology

Reading Instruction

School Administration and Supervision

Special Education

Physical Education (M.S.)

Academic Minor

Dance

Certificate Program

Athletic Coaching

SCHOOL OF SCIENCE

The School of Science offers a wide variety of majors through its eight departments: Biological Science, Chemistry, Earth Sciences, Mathematics, Nursing, Physics, Psychology, Statistics and its Health Sciences and Physical Science Programs. Each major requires student involvement in several science departments so that a broad view of science is obtained.

The career flexibility available to students after graduation is one of the main advantages of a degree in a science area. Thus we strive to prepare our students for graduate study, industrial employment, public school teaching and government service.

Students who already possess a baccalaureate degree and other appropriate qualifications will find opportunity for graduate study in Biological Science, Chemistry, Earth Sciences, Mathematics, Physics and Statistics. A Master of Science degree from one of these departments should serve the student very well in the selection of a career. It is especially important for students desiring to study for their doctorate degree or who wish to teach in community colleges.

All of the departments and programs of the School of Science stand ready to assist students in the field of their choice and to attempt to insure that they receive the best science education available.

Students with special interests not covered in the courses listed may arrange from one to five units of work on an independent study basis by registering for 4900, Independent Study. Specific requirements for each independent study program must be worked out with the appropriate faculty member.

Directed Group Studies (1920-1999, 4920-4999) are available at all levels in the several disciplines represented in the school. They will be offered as special circumstances warrant.

Four years of college preparatory mathematics is strongly recommended for students expecting to major or minor in mathematics or sciences. In any case, such students should have completed at least two years of algebra and one year of geometry, or one and one-half years of algebra, trigonometry and one year of geometry. A student not having this minimum preparation should consult his or her adviser.

CURRICULA OFFERED

Master's Degrees

- Biological Science (M.A.)
- Chemistry (M.S.)
- Earth Sciences (M.S.)
- Mathematics (M.S.)
- Physics (M.S.)
- Statistics (M.S.)

Academic Minors

- Chemistry
- Computer Science
- Earth Sciences
- Mathematics
- Physics
- Psychology

Baccalaureate Degrees

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

INTERDISCIPLINARY PROGRAMS

Interschool interdisciplinary programs are administered by the Interdisciplinary Office which reports to the Dean of Undergraduate Studies.

CURRICULA OFFERED

Baccalaureate Degree

- Liberal Studies (B.A.)

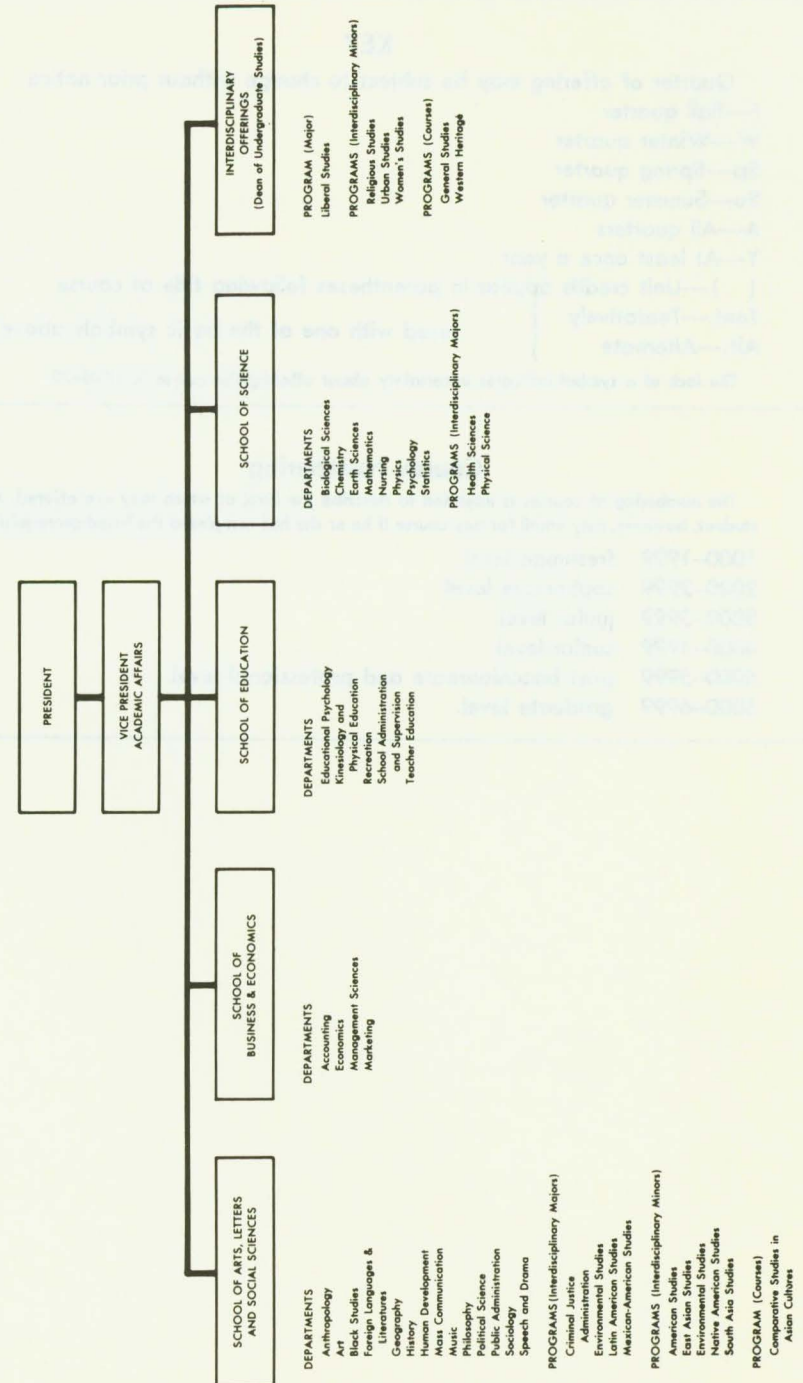
Programs

- General Studies
- Western Heritage

Academic Minors

- Religious Studies
- Urban Studies
- Women's Studies

CALIFORNIA STATE UNIVERSITY, HAYWARD
Academic Organization



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

Alt.—Alternate

(used with one of the basic symbols above)

The lack of a symbol indicates uncertainty about offering the course in 1978–79

Course Numbering

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.

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.

AMERICAN STUDIES

(American Studies Committee; School of Arts, Letters and Social Sciences)

Professors: Charles W. Merrifield, Marc Ratner

Associate Professor: Richard Orsi (Chair)

MINOR IN AMERICAN STUDIES

The Minor in American Studies 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 his or her Bachelor of Arts major with a Minor in American Studies by emphasizing the subject of the United States in his or her selection of upper-division major and General Education requirements. For majors in English, History and Political Science, the minor may be met with no increase in the number of courses necessary for general education and major requirements. Other majors may meet requirements by a combination of electives and General Education courses.

The Minor in American Studies is especially useful for students who plan careers in teaching, law, library science, journalism, and public service.

Advisers for the Minor are available in the English, History, and Political Science Departments. A candidate for the Minor should plan his or her major and General Education requirements in consultation with one of these advisers to conform as much as possible with the following requirements:

1. (24 units) Two upper-division courses, approved by an American Studies adviser, from each of the following departments: English, History, and Political Science. These courses must include Hist. 4511, -12; or Hist. 4513, -14; or Pol. Sci. 4731, -32.
2. (4 units) One additional course, approved by an American Studies adviser, from one of the following departments: Anthropology, Black Studies, Economics, Geography, Mexican-American Studies, Music, Philosophy, Sociology, Speech/Drama.
3. (4 units) One Senior Seminar in American Studies. The seminar is numbered 4690 and will be scheduled only by those departments participating in the concentration.
4. (8 units) Two additional courses listed in 1, 2, and/or 3 above.

At least 18 units must be taken in courses from departments other than the student's major.

ANTHROPOLOGY

(Department of Anthropology; School of Arts, Letters and Social Sciences)

Professors: Lowell J. Bean, Edward J. Jay, Robert K. McKnight, H. Arlo Nimmo

Associate Professors: Alan J. Almquist, Peter J. Claus (Chair), H. Glynn Custred, Lindy Li Mark, John E. Rothenberger

Lecturers: Joan D. Koss, George R. Miller

Graduate Coordinator: H. Glynn Custred

PURPOSES

California State University, Hayward offers a wide range of courses in anthropology, the study of man, leading to B.A. and M.A. Degrees. The anthropology program provides a cross-cultural and time-depth study of man as the product of both evolutionary and cultural conditions. As a liberal arts curriculum, the program helps the student to understand the self in relation to biological and cultural forces and in relation to persons of other ethnic backgrounds. Regional courses on the major populations of the world are offered, with particular emphasis placed on North and South America and Asia. The baccalaureate degree major in anthropology prepares the individual student for a variety of career opportunities in people-contact fields, particularly those involving cultural or ethnic diversity: in teaching, industry, government, law, developmental agencies, public relations and social research. An emphasis in Biological Anthropology and Archeology-Prehistory provides the student a career foundation applicable to public health, state salvage archeology or park service, or museum curator positions. Anthropology also provides a foundation for secondary teaching careers in high school social science courses. Students interested in pursuing a Teaching Credential should consult advisers in the Anthropology and Teacher Education departments. The B.A. Degree Major, which is general in character, provides a sound foundation for advanced studies in anthropology. Specializations, which allow some focusing of special interests, are offered in two sub-disciplines:

1. Archeology and Biological Anthropology: human biology, human variation, and evolution, reconstruction of prehistoric cultural systems; and
2. Socio-cultural Anthropology: social and cultural systems with emphasis on contemporary populations.

In addition to the B.A. degree major in Anthropology, the Department offers a Minor in Anthropology and the Anthropology Option in the Liberal Studies Major, and participates in the Asian Cultures Program, the Latin American and Mexican-American Studies Majors, and the interdisciplinary minors in American Studies, East Asian Studies, Environmental Studies, Native American Studies, Religious Studies, South Asian Studies, Urban Studies and Women's Studies.

The Anthropology Major Leading to the B.A. Degree

Requirements

- I. Complete the 76-unit requirement in General Education for the B.A. degree. Recommended Courses: Comparative Studies in Asian Cultures (Asia 3011, -12, -13) and/or The Native American Experience (NAS 2100).
- II. Required Courses in other departments:
 - A. Biol. 1000, or 1102 or 2040 (4-5 units)
 - B. Earth Sci. 2101 (5 units).
 - C. Stat. 1000 or 1100, or Math. 1700 or 1801 (4-5 units).
 - D. FLa. 1 -- 1, 1 -- 2, 1 -- 3; or a demonstrated reading competence (0-12 units).



Any or all of the above (I and II) may apply toward General Education area requirements and electives. Up to 27 units of the required courses (II above) may count toward Lower Division General Education. If taken while an upper division student, up to 16 units will count toward Upper Division General Education requirements.

- | | |
|--|-------------|
| III. Required Courses in Anthropology | 60-62 units |
| A. Lower Division | 16 |
| Anth. 2100, 2200, 2300, and 2800 (Anth. 3000 may be substituted for Anth. 2300 on approval of adviser and Department Chair.) | |
| B. Upper Division | 44-46 |
| 1. Anth. 3400, one course in the 3100 series, one course in the 3200 series, and one course from 4810 or 4820. | |
| 2. One course from the following: Anth. 3500, 3505, 3508, 3509, 3510, 3515, 3520, 3535, 3540, 3560, 3570, 3575, 3590, 3595. | |
| 3. Anth. 4910. Pro-Seminar in Anthropology | |
| 4. Five additional courses from one of the following two groups: | |
| a. Archaeology and Biological Anthropology: Anth. 4240 and 4245 and three of Anth. 3100, 3101, 3102, 3200, 3220, 3240, 3250, 3710, 4125, 4450. | |
| b. Socio-Cultural Anthropology: Anth. 4310 and one additional course from the 3500 series and three of Anth. 3300, 3330, 3350, 3430, 3440, 3460, 3700, 3710, 3720, 3740, 3420, 3850, 4330. | |
- DGS courses (4920-99 series) may be substituted for major requirements upon approval of the adviser and Department Chair.
- | | |
|---|-------|
| IV. Unit Summary | 60-62 |
| Major: courses in Anthropology | 60-62 |
| courses in supporting fields | 13-27 |
| V. Recommended Courses in Supporting Fields | |
| 1. <i>Archeology and Biological Anthropology</i> | |
| Biol. 1101-3, 3120, 3130, 3570, 4105, 4515, 4518; Chem. 1101-3; Earth Sciences 2201, 3520, 3610, 3710, 3720, 3730, 3810, 3910; Geog. 2100, 3410. | |
| 2. <i>Socio-Cultural Anthropology</i> | |
| One upper-division history course (regional); one upper-division course in philosophy or literature; Psych. 3500 or Soc. 3500; two upper-division courses in geography, political science, sociology, or social science | |

The Anthropology Minor

Requirements: thirty-six (36) quarter units in Anthropology, to be taken in approximately the following order: a. Anth. 2300 (3000 may be substituted); b. Two of the following: Anth. 2100, 2200, 2800, 3200, 3400; c. Two courses in the 3500 series (only two (2) from this series may be applied toward the minor); d. Three additional 3000 and/or 4000 series courses (excluding 3500 series courses); and e. Anth. 4910.

General Education Courses in Anthropology

Lower Division: Anth. 1000, 2100, 2200, 2300, 2800

Upper Division: Anth. 3000, 3460, any course in the 3500, 3700 and 3800 series.

Other courses may be taken with the consent of the instructor.

Anthropology Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)

Two social science fields must be selected.

As first field:

Eight courses, at least 5 of which are upper division, taken in the following pattern: any three of Anth. 2100, 2200, 2300 (or 3000), or 2800; three courses from one of the following groups, and two courses from the other group.

Group 1: Anth. 2100, 2200, 3100, 3101, 3102, 3110, 3200, 3220, 3240, 4240, 4245

Group 2: Anth. 2300, 2800, 3300, 3330, 3350, 3400, 3410, 3420, 3430, 3440, 3460, 3700, 3710, 3720, 3730, 3850, 3880, 3890, 4330, 4450, 4810, 4820, and 3500 series courses;

As second field:

Five courses

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

Two social science fields must be selected

As first field:

Nine courses, at least 6 of which are upper division, taken in the following pattern: any three of Anth. 2100, 2200, 2300 (or 3000), or 2800; three courses from each of the following two groups.

Group 1: Anth. 2100, 2200, 3100, 3101, 3102, 3110, 3200, 3220, 3240, 4240, 4245

Group 2: Anth. 2300, 2800, 3300, 3330, 3350, 3400, 3410, 3420, 3430, 3440, 3460, 3700, 3710, 3720, 3800, 3850, 3870, 3880, 3890, 4330, 4450, 4810, 4820, and 3500 series courses.

As second field:

Six courses

The Master of Arts Degree in Anthropology

GENERAL INFORMATION

The University offers the Master of Arts degree in Anthropology with emphasis on socio-cultural, biological, archaeological, or linguistic programs of study in the discipline.

REQUIREMENTS FOR THE DEGREE

Admission to the Program

To be admitted to the Program with conditionally classified status, the student must: (1) achieve a grade point average of 2.5 or higher in all undergraduate work; (2) achieve a grade point average of 3.0 in the upper division work of his or her baccalaureate major; (3) file a written application with the Department and the Office of Admissions, with the necessary college transcripts, and (4) submit two letters of recommendation for admission to the program from former professors.

Classification in the Program

Classified 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 student in the Program. It should be noted that *not more than 10 units of graduate level course work (6000 series) in anthropology taken as a conditionally classified student will be applicable to M.A. degree requirements.* To attain classified status, either at the time of admission or thereafter, a student must: (1) complete a baccalaureate degree in anthropology (anthropology major) 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 course work applicable to the anthropology M.A. degree requirements taken after admission to the Program.

Advancement to Candidacy

Advancement to candidacy implies that the student has demonstrated, through satisfactory completion of a substantial portion of graduate level anthropological course work 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 he or she: (1) completes a minimum of 23 quarter units in anthropological course work applicable to the M.A. degree requirements, while in residence at Cal State, including Anthropology 6000, Seminar in Anthropological Theory and Methods, and 12 additional units of graduate level (6000 series) course work; (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; (4) submits a statement of intention to take the comprehensive examination, or, upon petition and written approval from the Department Graduate Studies Committee, an acceptable thesis proposal; (5) is recommended for advancement to candidacy by the Department.

Maintenance of Classified Standing:

To maintain classified standing a grade-point average of 3.0 or higher must be achieved on all courses taken in the approved program of study, whether at California State University, Hayward or at any other college or university. If a classified student's grade-point average falls below 3.0 he or she shall be dropped from candidacy, if previously attained, and placed in conditionally classified status until he or she has remedied his or her deficiencies and is recommended by the department for reinstatement to classified status (and candidacy when applicable). Failure by a student to return to classified status following completion of 16 additional quarter units shall result in his or her dismissal from the program.

Requirements for the M.A. Degree in Anthropology

To be eligible for the M.A. degree in Anthropology a student must:

1. be advanced to candidacy;
2. complete 45 quarter units of graduate work of which:
 - a. all must be earned within the seven years just preceding the completion of the requirements for the degree;
 - b. not fewer than 32 must be completed in residence;
 - c. not fewer than 23 must be in anthropology courses in the 6000 series;
 - d. not more than 5 may be for a thesis (Anth. 6910);
 - e. not more than 13 may be for extension and/or transfer course credit, as approved by the department;
3. complete a satisfactory program of study as approved by the department and the Dean of Graduate Studies, to include:

a. Anth. 6000. Seminar in Anthropological Theory and Methods	4
b. Anth. 6100. Seminar in Biological Anthropology	3
c. Anth. 6200. Seminar in Archaeology/Prehistory	3
d. Any two of Anth. 6300. Seminar in Regional Ethnography, <i>or</i> Anth. 6400. Seminar in Socio-Cultural Anthropology, <i>or</i> Anth. 6500. Seminar in Anthropological Linguistics	6
e. Two advanced graduate seminars for which the prerequisite seminars have been taken	6
f. Elective courses (graduate or upper division) in Anthropology taken as a graduate student	6-11
g. Elective courses (graduate or upper division) outside of anthropology in one or more closely related fields, taken as a graduate student	7-12
h. Thesis or Comprehensive Examination	
Thesis	5
Comprehensive	0
Total	45

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 grades of A, B, and C are considered passing for courses applicable to degree requirements. To obtain credit for a course in which a D and F is received, the course must be repeated and a grade of C or higher obtained. However, both the original grade and the repeat grade are utilized in calculating the student's grade point average.

Thesis or Comprehensive Examination

Before advancing to candidacy a student must express a preference relative to taking a comprehensive examination over the entire field of anthropology or writing an M.A. thesis. However, the Department reserves the right to make the final determination in this regard. Students are required to take the examination after completion of all course requirements. The thesis alternative is regarded as a privilege to be accorded only to those students whose academic record is outstanding, and who, in the judgment of the Departmental faculty, would benefit significantly from thesis research in terms of their career objectives. Details regarding submission of a thesis proposal can be obtained from the Graduate Coordinator. Students may not enroll for thesis credit (Anth. 6910) until they are advanced to candidacy.

ANTHROPOLOGY COURSES

UNDERGRADUATE COURSES

INTRODUCTORY

1000. Introduction to Anthropology (4)

The holistic study of man 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. Not open for credit to students who have completed Anth. 2300 or 3000 or equivalent. Four hrs. lect.; or 3 hrs. lect., 1 hr. disc. (A)

1920-1999. Directed Group Study (1-4)

2100. Introduction to Human Biology (4)

Synthesis of the evidence of human evolution, man's place in nature. Biological and cultural aspects of the human adaptation. Three hrs. lect., 1 hr. disc. (F,Sp)

2200. Introduction to Archeology (4)

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. (A)

2300. Cultural Anthropology (4)

Structure and dynamics of culture; invention, diffusion, social organization, value-systems. Orientation in human life ways. (A)

2800. Introduction to Anthropological Linguistics (4)

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

3000. Anthropology in the Modern World (4)

The relevance of anthropology to contemporary world problems and the great issues of mankind. An advanced general course in cultural anthropology. Four hrs. lect.; or 3 hrs. lect., 1 hr. disc. (A).

BIOLOGICAL ANTHROPOLOGY**3100,-1,-2. Human Evolution (4,4,4)**

Origin and history of mankind in a biological perspective. Relationships of the human lineage to other primate forms.

3100. Interpretations of the primate evolutionary record based on fossil evidence and comparative anatomy. (F)

3101. The fossil evidence for human evolution. (W)

3102. Morphological variation in both a racial and nonracial context in extinct and contemporary human populations. (Sp)

One course is not prerequisite to the others. Prerequisite: Anth. 2100 or Biol. 3020 or equivalent.

3110. Primate Social Behavior (4)

A survey course concerned with behavior of non-human primates. The relationships between social structure and the environment, and their relevance to the evolution of human behavior will be emphasized. Prerequisite: Anth. 2100 or 2300. (W)

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)

3220. Archeology of the Old World (4)

Origin, development, and distribution in space and time of the prehistoric cultures of Africa and Eurasia, and the emergence of civilizations in the near East. Prerequisite: Anth. 2200. (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)

SOCIO-CULTURAL ANTHROPOLOGY**3300. World Ethnography (4)**

Review of selected diversified cultures from various areas of the world, providing a broad general appreciation, for comparative purposes, of the manifold ways in which man responds to and builds upon his differing environments. Prerequisite: Anth. 2300, or consent of instructor. (Y)

3330. Peasant Societies (4)

Comparative review of selected sedentary farming groups, including discussion of ancient and contemporary populations of Europe, Africa, Asia, the Pacific, and Latin America; the concept of peasantry. Prerequisite: Anth. 2300 or consent of instructor. (Y)

3350. Urban Anthropology (4)

Comparative study of the history, ethnography, and modern development and change in urban centers in industrial and non-industrial areas of the world. Prerequisite: Anth. 2300 or 3000 or consent of instructor. (Y)

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. Three hrs. lect., 1 hr. disc. (A)

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)

3420. The Anthropology of Music (4)

Music of world's peoples from musicological and anthropological standpoints; emphasis on study of music in culture. Topics include: specialization, continuity and change, ecology, communication, function, music and dance, aesthetics. Prerequisite: Anth. 2300 or 3000. (Y)

3430. Anthropology of Law (4)

Comparison of systems of law and conflict resolution; conflicts between individuals or groups, and resolution or non-resolution in different non-industrial societies such as the African; structural-functional view of law and conflict in the total social environment. Prerequisite: Anth. 3400. (Y)

3440. Political Anthropology (4)

Comparative study of political institutions and processes in non-industrial, primarily small scale tribal and peasant societies and communities. Political ethnography; methodology, analysis, and theory. Prerequisites: Anth. 3400, 3430, or consent of instructor. (Y)

3460. Culture and Personality (4)

The interplay of personality and cultural factors in human development; personality in various cultural settings; the "national character" concept. Prerequisite: Junior or senior standing; or consent of instructor. (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)

An analysis of past and present Indian and peasant cultures in the Caribbean and South America. (Y)

3515. Mexico and Central America (4)

Cultural history and present-day economic, social, political, and religious ways of life of Indian and Mestizo groups in Mexico and Central America; recent changes and modern trends in cultural development. (Y)

3520. Pacific Islands (4)

Cultural patterns and problems of the Pacific Island world; historical, political, economic background of Polynesia, Micronesia, and Melanesia; the future of these areas in the world scene. (Y)

3535. Southeast Asia (4)

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

3540. Eastern Asia (4)

Cultural patterns and problems of China, Korea and Japan; comparative study of native populations, historical and cultural background of the national ethics; role in the contemporary world. (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 India subcontinent. (Y)

3570. Middle East (4)

Comparative study of peoples of the Middle East—Central Asia to Morocco. Culture, culture history, religion and social organization. Consideration of ecology, modernization, intercultural relations. (Y)

3590. Europe (4)

Analysis of major cultures of contemporary Europe: origins and evolution, social organization, life styles, value systems, and material culture. Implications of rural-urban differences, national and subnational identification, and culture contact. (Y)

Applied Anthropology**3700. Education and Anthropology (4)**

Examination of education as enculturation in non-Western cultural settings and the role of anthropology in modifying educational institutions in various societies. Prerequisite: Junior or senior standing or consent of instructor. (F)

3710. Museum Curating (4)

The anthropologist in the museum profession; problems of the curatorial role: acquisition, identification, recording, repair and preservation, informational texts and display of ethnological and archeological materials. Prerequisite: Anth. 2200 or 2300, or consent of instructor. Two full-day field trips required. (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. (Y)

3730. Bilingualism in the United States (4)

The impact of nineteenth and twentieth century English on non-English immigrant and on native speech in the United States. Patterns of change in analogous situations in other places and times. (W)

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

Infancy, childhood, adolescence; the process of enculturation considered cross-culturally. Prerequisites: Junior or senior standing or consent of instructor. (Y)

Anthropology and Religion**3850. The Anthropology of Religion (4)**

Origins, forms, elements, and symbolism of religion; the relative roles of magic, religion, and science in selected societies. Prerequisite: Anth. 2300 or consent of instructor. (Y)

3870. The Mystical Tradition (4)

Cross-cultural exploration of the mystical tradition: the search for union of the individual with nature or with the universe. Emphasis on discovering common elements of the mystical experience world-wide. Opportunity for voluntary exercises in altered states of consciousness. (Sp)

3880. Witchcraft and Sorcery (4)

Discussion of the principles of magic as seen in a cross-cultural perspective with special emphasis on magic, sorcery, and witchcraft in the western tradition. (W)

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. (F)

ADVANCED ARCHEOLOGY AND BIOLOGICAL ANTHROPOLOGY**4125. Laboratory in Physical Anthropology (2)**

Laboratory analysis of fossil and contemporary remains of man. May be repeated once for credit if scheduled with a different lecture sequence (3101 or 3102) from one previously taken. Prerequisite: Anth. 3100, to be taken concurrently with either Anth. 3101 or 3102. (Sp)

4240. Field Methods in Archeology (4)

General field techniques for data retrieval; ethno archeological interpretations based on analysis of prehistoric and/or historic sites. Prerequisite: Anth. 2200 or consent of instructor. (Sp)

4245. Field Archeology (6)

Field and laboratory experience in recovery and analysis of archeological data; work on prehistoric and/or historic sites, or simulated sites. May repeat once for credit. Prerequisite: Concurrent registration in Anth. 4240 is required. Eight hrs. act., 6 hrs. lab. (Sp,Su)

ADVANCED-SOCIO-CULTURAL 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). (Y)

4330. Culture Change (4)

Tradition versus the dynamics of change; socio-cultural and psychological barriers to change; stimulants for change; innovation and its acceptance; the ethics of planned change; technical aid and social science. Prerequisite: one 3000-level course in anthropology. (Y)

4450. Cultural Ecology (4)

The articulation of technology and physical-biotic environment within the scope of socio-cultural systems; balance or harmony in man-land relations; growth of ecological thought to include human activity. Prerequisite: Anth. 2300 or Geog. 2300. Cross-listed with Geog. 4450. (Y)

4810. Ethnosemantics (4)

Correlation of the semantic or meaning component of language with other cultural systems. Emphasis on analysis of lexical sets and translation. Prerequisite: Anth. 2800. (Y)

4820. Sociolinguistics (4)

Correlation of linguistic diversity with social roles and social structures. Language in relation to education, national development and social usage. Problems of bilingualism. Prerequisite: Anth. 2800. (Y)

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)

4920-4999. Directed Group Study (1-4)

GRADUATE COURSES**6000. Seminar in Anthropological Theory and Methods (4)**

A critical examination of contemporary research, methods, and theory in social anthropology and ethnology. Selected recent and classic anthropological studies will be analyzed in terms of contemporary goals and methods. Prerequisite: Open only to graduate students who have had Anth. 4310 and 4910 or equivalent. (F)

6100. Seminar in Biological Anthropology (3)

Critique of the major contributions to the development of the synthetic theory of evolution, with emphasis upon their relevance to the study of human evolution and human genetics. Prerequisite: Anth. 3100 or equivalent. (F)

6110. Advanced Seminar in Biological Anthropology (3)

Advanced study of synthetic theory of evolution, human evolution, and genetics with emphasis on individual analyses and reports based on available literature. Prerequisite: Anth. 6100.

6200. Seminar in Archaeology/Prehistory (3)

Methods and theories in archeology and prehistory, with problems, discussions and reports assigned from the available literature. Prerequisite: only open to graduate students who have had Anth. 3200 or equivalent. (W)

6210. Advanced Seminar in Archaeology/Prehistory (3)

Application of skills and perceptions acquired in Anth. 6200, to current research in archeology and to problems of classification, analysis, chronology, ancillary data. Prerequisite: Anth. 6200.

6300. Seminar in Regional Ethnology (3)

Methods and theories of regional ethnology, emphasizing the comparative method for testing theory and the development of research design as applied to selected culture areas supported by adequate methodological literature. Prerequisite: two courses in Anth. 3500 series or equivalent and Anth. 6000. (F)

6310. Advanced Seminar in Regional Ethnology (3)

Methods and theories of regional ethnology, emphasizing the implementation of the comparative method for testing theory and the utilization of an explicit research design in application to select cultural areas. Prerequisite: Anth. 6300.

6400. Seminar in Socio-Cultural Anthropology (3)

Theory and trends in synchronic, diachronic, and comparative studies of culture, emphasizing familiarity with contemporary bibliography and student participation in criticism and synthesis. Prerequisites: two courses from Anth. 4300-4400 series or equivalent and Anth. 6000. (W)

6410. Advanced Seminar in Socio-Cultural Anthropology (3)

Structural and cognitive approaches to the study of society and culture, with special attention to contemporary theory and research design. Emphasis on creative, original work on the part of the student. Prerequisite: Anth. 6400.

6500. Seminar in Anthropological Linguistics (3)

Analysis of the development of theoretical linguistic models with emphasis on their application to descriptions of particular languages as exemplified in the available literature. Prerequisites: Anth. 2800 and 4810 or 4820. (W)

6510. Advanced Seminar in Anthropological Linguistics (3)

Problems in linguistic reconstruction and classification with consideration of factors contributing to change or stability. Individual analysis of data from available grammars, dictionaries or other library materials. Prerequisite: Anth. 6500.

6900. Independent Study (1-4)

Independent study in anthropology with concentration on a specific problem under guidance by a faculty sponsor. Prerequisite: Completion of seminar relevant to the specified problem and consent of instructor. (A)

6910. Thesis Research (1-5)

Supervised research on approved topics toward partial fulfillment of master's degree. Prerequisite: advancement to candidacy and approval of topic by thesis committee. To be repeated for total not to exceed 5 units. (A)

6920-6999. Directed Group Study (1-3)

ART

(Department of Art, School of Arts, Letters and Social Sciences)

Professors: James M. Black, John K. Davis, Misch H. Kohn, Corban LePell, Lynn M. Loudon, Harold W. Myers, Jr., Joseph A. Pugliese, Melvin J. Ramos, Raymond J. Saunders, Howard A. Slatoff, Allan B. Temko, Arne Wolf

Associate Professors: Clayton G. Bailey, Lewis S. Carson, Irene Keil, Kenjilo Nanao, Alan M. Shepp (Chair)

Assistant Professors: Keith W. Dills, James Perrizo

PURPOSES

The purpose of the Art Department of California State University, Hayward is twofold: it encourages the development of skills in the media of painting, sculpture, printmaking, ceramics and crafts through a core of fundamental studio courses which lead to upper level courses in one of the specialized studio areas. Additionally, students may elect to pursue the Art History Option. By offering courses in both the practice of art and in the History of Art, the department emphasizes both the personal development of the individual and a broad cultural awareness of the visual arts in society.

The program offers appropriate courses for the general education curriculum of the University and provides the necessary foundation for those students who wish to continue their own personal development, whether in the application of skills acquired in studio courses or in continuing their education at the graduate level. Students can expect that work undertaken within the Art Department will provide them with both personal enrichment and a fundamental knowledge and skill necessary to pursue careers in the practice of art, teaching, curatorial work, or other careers directly related to their educational experience. The B.A. degree major is accredited by the National Association of Schools of Art.

The Art Department also offers a minor in Art and an Art Option in the Liberal Studies Major, as well as numerous courses which are beneficial to students majoring in many different disciplines.

The Art Major Leading to a B.A. Degree

Requirements

STUDIO OPTION

- I. Complete the 76 unit requirement in general education.
- II. Complete the following requirements of Art courses totaling 75 units. Fifteen (15) units must be in one area of concentration (i.e., ceramics, drawing, painting, printmaking, sculpture, etc.).

Lower Division

Art 1010. The Idea of Art History (4)

Art 1111. Introduction to Studio (5)

Students are encouraged to complete the following lower division courses before entering upper division. Each is prerequisite to upper division studio work in the area.

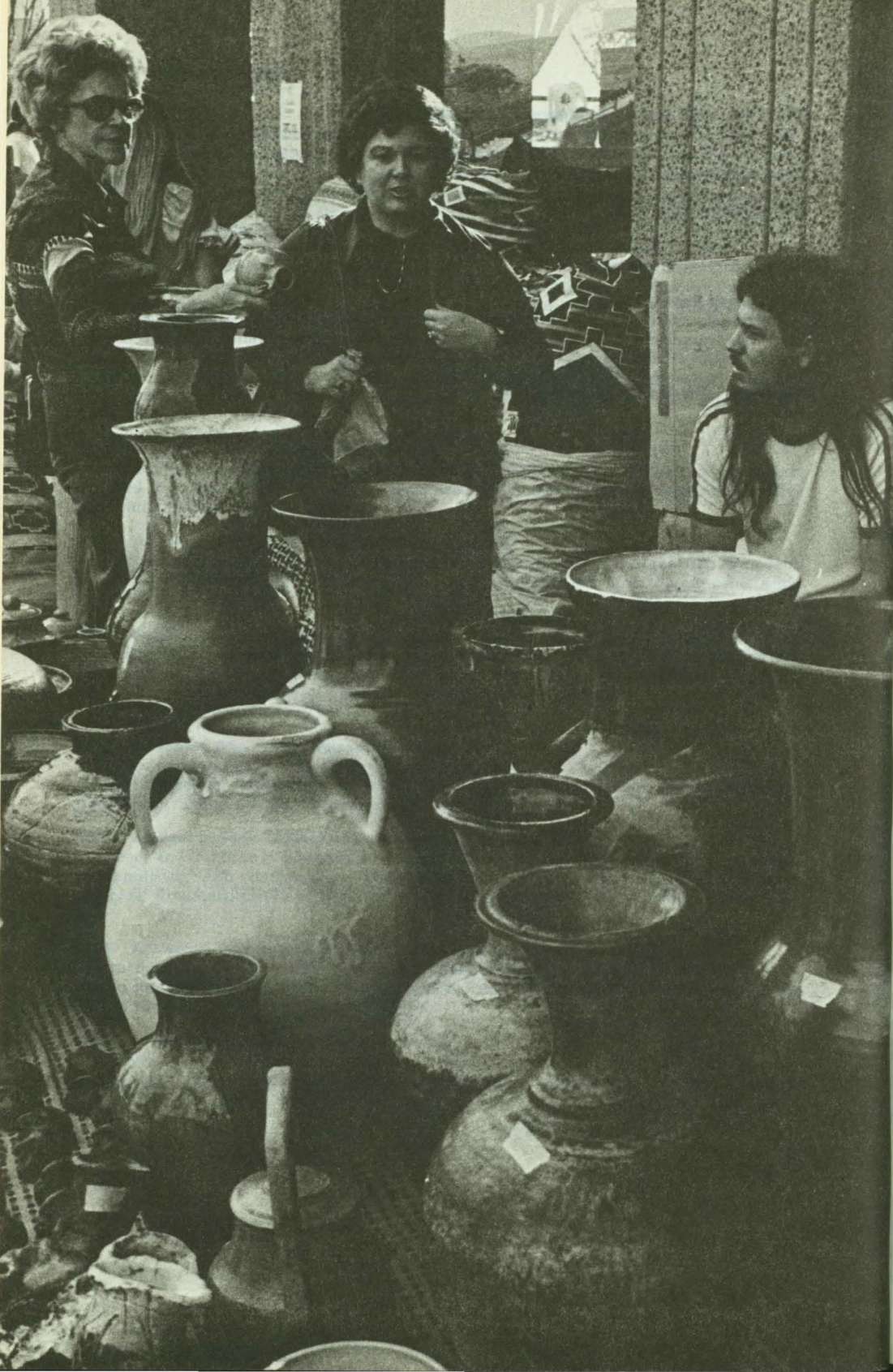
Art 1112. Ceramics I (5)

Art 1113. Drawing I (5)

Art 1114. Painting I (5)

Art 1115. Printmaking I (5)

Art 1116. Sculpture I (5)



Upper Division

The student will be expected to complete a minimum of 40 upper division units.
 Art 3030. Twentieth Century Art (5)
 Art 4001. Seminar in Contemporary Art Criticism (5)
 Art History (two additional courses) (10)
 Any courses from the list below, or any other upper division art courses, with the approval of the adviser, to total at least 20 units:

Art 3141. Drawing II (5)	
Art 3142. Drawing III (5)	
Art 3212. Painting II (5)	
Art 3213. Painting III (5)	
Art 3301. Sculpture II (5)	
Art 3302. Sculpture III (5)	
Art 3401. Calligraphy (5)	
Art 3402. Visual Communication I (5)	
Art 3512. Ceramics II (5)	
Art 3513. Ceramics III (5)	
Art 3601. Photography II (5)	
Art 3701. Gallery and Museum Exhibition and Design (4)	
Art 3801. Printmaking II (5)	
Art 4110. Optional Media (5)	
Art 4143. Drawing IV (5)	
Art 4301. Sculpture IV (5)	
Art 4402. Visual Communication II (5)	
Art 4514. Ceramics IV (5)	
Art 4801. Printmaking III (5)	
Art 4802. Printmaking IV (5)	
Art 4851-59. Advanced Studio Practice (5)	
Total	75 units

Unit Summary

a. General Education	76
b. Major: Courses in Art.....	75
B.A. Degree total.....	186

OPTION IN ART HISTORY

- I. Complete the 76 unit requirement in general education.
- II. Complete the following requirements totaling 72 units
 12 units in supporting fields of English, Foreign Languages, History, and Philosophy by advisement *

<i>Lower Division</i>	
One 1000 level studio art course by advisement (5)	
Art 1010. The Idea of Art History (4)	
Three Art History Courses at the 2000 level by advisement (15)	
Total	24

Upper Division

Art 3030. Twentieth Century Art (5)	
Art 4090. Seminar in Art History (5)	
Art 4001. Seminar in Contemporary Art Criticism (5)	
Two Art History courses at 3000 level by advisement (10)	
Two Art History courses at 4000 level by advisement (10)	
Total	35
Grand Total.....	71

* The four units of Humanities credit generated by Western Heritage may be applied to this requirement.

Unit Summary

a. General Education	76	<i>Units</i>
b. Major: Courses in Art.....	59	
c. Courses in supporting fields	12	
B.A. Degree total.....	186	

The Art Minor

Requirements

See Art adviser for approval.

Requirements include a minimum of 40 units in courses selected as follows:

A. Art 1111. Introduction to Studio	5
Three courses from the following by advisement totaling 15 units.	
Art 1112. Ceramics I (5)	
Art 1113. Drawing I (5)	
Art 1114. Painting I (5)	
Art 1115. Printmaking I (5)	
Art 1116. Sculpture I (5)	15
B. Any two upper-division Art History courses.....	10
Any two upper-division Studio courses.....	10
Total.....	40

Art Option: Liberal Studies

Credential Track

(path for students seeking provisional credential as undergraduates)

- Area IV E
- Art 1111
- Any two lower division art studio courses from Art 1112, 1114, 1115
- Area V A
- Art 1113 (5)
- Art 1116 (5)
- Art 3030 (5)
- Art 4001 (5)

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

- Area V A
- Art 1113 (5)
- Art 1114 (5)
- Art 1116 (5)
- Art 3030 (5)
- Art 4001 (5)
- Upper division studio course (5)

Single Subject Waiver Program: Art

The State Commission for Teacher Preparation and Licensing has approved the following program as a waiver for the examination in the Single Subject Art. The student must complete the Art Major, Studio Option, and include Art 3142, 3212; one course from each of the following sequences: A) Art 3301, 3302, 4301, B) 3512, 3513, 4514 in the required electives.

ART COURSES

1010. The Idea of 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. Four hrs. lect./disc. (F,W,Sp)

1111. Introduction to Studio (5)

An orientation to the field; conceptualization and perception as generative and critical framework for expression. Studio projects in two and three dimensions. Field trips may be required. Two hrs. lect., 6 hrs. act. (formerly Art 1110) (A)

1112. Ceramics I (5)

An introduction to the basic techniques of construction with clay. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (formerly Art 3511) (A)

1113. Drawing I (5)

Problems in drawing; line, volume, and motion. Field trips may be required. Two hrs. lect., 6 hrs. act. (formerly Art 1140) (A)

1114. Painting I (5)

Fundamentals of painting, study of techniques and processes. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (formerly Art 3211) (A)

1115. Printmaking I (5)

An introduction to the history of printmaking and the study of the main graphic processes including lithography, intaglio etching, serigraphy (silkscreen printing), linocut, and woodcut. Field trips may be required. Two hrs. lect., 6 hrs. act. (A)

1116. Sculpture I (5)

An introduction to basic concepts, materials, and processes of sculpture; includes drawing for sculpture. Field trips may be required. Two hrs. lect., 6 hrs. act. (formerly Art 3311) (A)

1920-1999. Directed Group Study (1-5)**2020. Art in the Ancient World (5)**

The evolution of art from the prehistoric Near East through the later Roman Empire. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (Y)

2030. Medieval Art History (5)

The nature of European art from early Christian times to the 15th century. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (Y)

2040. European Renaissance Art (5)

The nature of post-Gothic art in Italy, France, Germany and the lowlands during the 15th and 16th centuries. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (Y)

2050. Baroque and Rococo Art (5)

The nature of European art in the 17th and 18th centuries. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (Y)

2601. Photography I (5)

The development of photographic thinking abilities in art and the environment. Field trips may be required. Film processing is not included—students will use their own film and their own cameras. Two hrs. lect., 6 hrs. studio act. (Y)

3020. Nineteenth Century Art (5)

European art from Neo-Classicism to Impressionism. Individual study visits to museums required. Four hrs. lect., 2 hrs. act. (formerly Art 3071) (Y)

3030. Twentieth Century Art (5)

The development of art from post-Impressionism to 1945. Prerequisite: junior standing. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (formerly Art 3072) (A)

3040. Art in the United States (5)

The development of art in the United States from the colonial period to the present. Individual visits to museums required. Four hrs. lect., 2 hrs. act. (formerly Art 3073) (Y)

3060. The Art of China (5)

The evolution of Chinese art from the Shang Dynasty to the Ming Dynasty. Individual study visits to museums required. Four hrs. lect., 2 hrs. act. (formerly Art 4040) (Y)

3070. The Art of India (5)

The evolution of art in India from the time of the Indus Valley civilization to the Mughal Dynasty. Individual study visits to museums required. Four hrs. lect., 2 hrs. act. (formerly Art 4050) (Y)

3080. Modern Architecture (5)

A survey of the new architectures of the industrial age from the 18th century to the present. Four hrs. lect., individual study visits to museums and/or field trips required. (formerly Art 3074) (Y)

3141. Drawing II (5)

Concepts and techniques of drawing. 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. studio act. (Y)

3142. Drawing III (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 once for credit with consent of instructor. Prerequisite: Art 3212. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)

3301. Sculpture II (5)

Sculpture using metal techniques with ferrous and non-ferrous metals. Repeatable once for credit with instructor's consent. Prerequisite: Art 1116. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (formerly Art 3312) (Y)

3302. Sculpture III (5)

Modeling, moldmaking and casting with non-ferrous metals. May be repeated once for credit with consent of instructor. Prerequisite: Art 1116. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (formerly Art 3315) (Y)

3401. Calligraphy (5)

The practice of Calligraphy through the study of historical styles. May be repeated once for credit with consent of instructor. Field trips may be required. Two hrs. lect., 6 hrs. act. (formerly Art 4630) (Y)

3402. Visual Communication I (5)

The graphic symbol as a means of communication. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (formerly Art 4655) (Y)

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. Two hrs. lect., 6 hrs. studio act. (Y)

3513. Ceramics III (5)

Emphasis on personal direction in ceramics. May be repeated once for credit with consent of instructor. Prerequisite: Art 3512. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (Y)

3601. Photography II (5)

Photography, as a tool of art. May be repeated twice for credit. Prerequisite: MCom. 2700 or Art 2601. Camera, film and film processing not included. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (Y)

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., 6 hrs. act. (formerly Art 4650) (F,W,Sp)

3702. Theories and Practices of Galleries and Museums (4)

Emphasis on the history and philosophy of museums and galleries; curatorial responsibilities. Prerequisite: upper division standing and Art 3701. Field trips may be required. Four hrs. lect./disc. (Y)

3801. Printmaking II (5)

Screen printing: study of processes in serigraphy. May be repeated once for credit with consent of instructor. Prerequisite: Art 1115. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (formerly Art 4611) (Y)

4001. Seminar in Contemporary Art Criticism (5)

Emphasis on critical awareness and the expression of ideas. Individual study visits to museums and/or field trips required. (A)

4021. Selected Topics in Ancient Art (5)

May be repeated once for credit. Prerequisites: Any 2000 or 3000 level art history course. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (Y)

4031. Selected Topics in Medieval Art (5)

May be repeated once for credit. Prerequisites: Any 2000 or 3000 level art history course. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (Y)

4041. Selected Topics in Renaissance and Baroque Art (5)

May be repeated once for credit. Prerequisites: Any 2000 or 3000 level art course. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (Y)

4051. Selected Topics in Nineteenth and Twentieth Century Art and Architecture (5)

May be repeated once for credit. Prerequisites: Any 2000 or 3000 level art history course. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (Y)

4071. Art Since 1945 (5)

The most recent developments from WW II to the present. Prerequisites: any 2000 or 3000 level art history course. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (Y)

4081. The City: A Collective Work of Art (5)

Studies of the form/design of cities from urban civilization to modern metropolis. Prerequisites: Any 2000/3000 level art history course. Four hrs. lect., 2 hrs. arranged for individual study visits to museums and/or field trips required. (Y)

4090. Seminar in Art History (5)

The development of Art Historical problems and ideas, emphasizing the scholarly processes of art history. Individual study visits to museums and/or field trips required. (Y)

4110. Optional Media (5)

Emphasis on individual expression and critical analysis. Repeatable once for credit with instructor's consent. Field trips may be required. Two hrs. lect. 6 hrs. studio act. (Y)

4143. Drawing IV (5)

Emphasis on individual expression in various drawing media. May be repeated once for credit with consent of instructor. Prerequisite: Art 3142. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (formerly Art 3143) (Y)

4301. Sculpture IV (5)

Projects using various materials such as plastics, wood, and metal. May be repeated once for credit with consent of instructor. Prerequisite: Art 1116. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)

4402. Visual Communication II (5)

The graphic symbol as a means of communication. Symbolic systems are representation of complex developmental data. Repeatable once for credit with consent of instructor. Prerequisite: Art 3402. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (formerly Art 4656) (Y)

4514. Ceramics IV (5)

Advanced ceramic problems. Individual studies in ceramic sculpture, moldmaking, glazes, kiln design/construction; wheel-thrown pottery. Repeatable once for credit with consent of instructor. Prerequisite: Art 3513. Field trips may be required. Two hrs. lect., 6 hrs. act. (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. Three hrs. seminar. (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. Prerequisite: Art 4701. Three hrs. seminar. (Y)

4801. Printmaking III (5)

Lithography. May be repeated once for credit with consent of instructor. Prerequisite: Art 1115. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (formerly Art 4612) (Y)

4802. Printmaking IV (5)

Etching and intaglio techniques. May be repeated once for credit with consent of instructor. Prerequisite: Art 1115. Field trips may be required. Two hrs. lect., 6 hrs. studio act. (formerly Art 4613) (Y)

4851-4859. Advanced Studio Practice (5 each)

Studies in optional media to clarify the student's direction as an artist. May be repeated once for credit with approval of instructor. Field trips may be required. Prerequisite: upper division standing. Two hrs. lect., 6 hrs. studio act. (formerly Art 4683-4693) (Y)

4851. ASP: Ceramics (formerly Art 4683)
 4852. ASP: Drawing (formerly Art 4685)
 4853. ASP: Intaglio (formerly Art 4687)
 4854. ASP: Lithography (formerly Art 4688)
 4855. ASP: Optional Media (formerly Art 4689)
 4856. ASP: Painting (formerly Art 4690)
 4857. ASP: Printmaking (formerly Art 4691)
 4858. ASP: Sculpture (formerly Art 4692)
 4859. ASP: Serigraphy (formerly Art 4693)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-5)****5900. Independent Study (1-4)****5920-5999. Directed Group Study (1-5)**

ASIAN CULTURES: SOUTH ASIA

(South Asia Studies Committee; School of Arts,
Letters and Social Sciences)

Professors: Glenn L. Glasow, Edward J. Jay, Joseph A. Pugliese, Anil K. Sarkar, Vincent Shaudys

Associate Professors: Peter J. Claus (Chair), Michael W. Dols, Daniel R. Graves, Joanne F. Loomba

Assistant Professor: Willem B. Van Groenou

GENERAL INFORMATION

This interdisciplinary, general education sequence (Asia 3011, -12, -13) is counted as two courses in the *humanities* area and one course in the *social sciences* area. Completion of *Asia 3011 only* satisfies three units in humanities and one unit in the social sciences area requirements. Completion of *Asia 3011, -12 only* satisfies six units in humanities and two units in the social sciences area requirements. Any or all courses in this sequence may also be used to fulfill upper division general education requirements in accordance with the regulations governing these requirements.

The Asia sequence is required in the core of the South Asia Studies Minor. See appropriate alphabetical listing.

COURSES**3011. Patterns of South Asian Cultures (4)**

Introduction to the study of South Asia (India, Pakistan, Sri Lanka, and Bangladesh) as approached by various disciplines; physical, demographic, social, historical, philosophical, with an emphasis on artistic patterns. (F)

3012. Development of Traditional South Asian Cultures (4)

The continuing development of major cultural traditions in South Asia through the Mughal period. (W)

3013. South Asian Cultures in the Modern World (4)

European expansion and influence in South Asia; contemporary political and economic problems; the process of modernization. (Sp)

BIOLOGICAL SCIENCES

(Department of Biological Sciences, School of Science)

Professors Emeritus: Tom C. Groody, Phyllis P. Gross, Arthur C. Smith

Professors: Robert J. Baalman, John C. Belton, Rolf W. Benseler, Howard L. Cogswell, Norman N. Goldstein, H. Duane Heath, Ann E. Heuer, C. Jack Lutt, Edward B. Lyke (Chair), Robert A. Main, Samuel M. McGinnis, James W. Nybakken, Dennis R. Parnell, George H. Peterson, P. Victor Peterson, Walter K. Schoenholz, Harvey I. Scudder

Associate Professors: Lynne O. Elkin, Michael S. Foster, George R. Johnston, Richard A. Simmons, Richard E. Tullis

Assistant Professors: Stephen C. Benson, Viola M. Neill

Lecturer: Helen Sowers

Graduate Coordinator: Richard E. Tullis

GENERAL INFORMATION

The department offers a diversified program of courses in the life sciences. These courses are designed for biology majors with specific degree objectives, students seeking applied technical training, or for the non-major students with general interests in biological subjects. Curricular programs for students preparing for later work in graduate and professional schools, in elementary, secondary and community college education, and the liberal arts are also provided. A program in Biomedical Laboratory Sciences is offered to qualify students for California hospital traineeships which lead to state certification.

ADVANCED PLACEMENT, BIOLOGICAL SCIENCE

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. 1000 and Biol. 3020, or, if the student is a major in biology, 10 units in place of Biol. 1102 and 1103. (No letter grade will be assigned or computed in the student's grade point average.)

For procedure in obtaining placement credit, see Advanced Placement, page 68.

General Option in Biological Science

The Biological Science Major Leading to a B.S. Degree General Option in Biological Science

- I. Complete the 76-unit requirement in general education, which is required for all majors. Biology majors may apply 8 units of mathematics and statistics courses in partial satisfaction of the Basic Subjects requirement and apply 10-11 units in satisfaction of the Natural Sciences requirement. Biology majors, and transfer students in particular, must be aware of the State university and college requirement of 60 quarter units in courses numbered 3000 or above (p. 92). All students majoring in biology should consult an adviser during their first quarter on campus and regularly thereafter to plan and maintain a program. Study of one or more modern foreign languages is highly recommended.

- II. Complete the following requirements:

<i>Physical Sciences and Mathematics</i>	<i>Units</i>
General Chemistry (Chem. 1101-2-3)	15
Organic Chemistry (Chem. 2301-2, or 3301-2-3)	8 or 15
College Algebra (Math 1130) or Elementary Functions and Coordinate Geometry (Math 1300) or Calculus I (Math 1304)	4**
Statistical Methods in Biology I (Stat. 3031)	4**
Introductory Physics (Phys. 2701, -2, -3)	12

* This is prepared and offered by the College Entrance Examination Board.

** Students may elect up to eight additional units of mathematics (1300, 1304, 1305, 1700, 2304) and/or statistics (4031). Biologists going on to graduate work should plan to complete Math 1305 as a minimum.



<i>Biological Science Core Program</i>		<i>Units</i>
Foundations of Biological Science (Biol. 1101-2-3)		15 †
Principles of Developmental Biology (Biol. 3140)		4
Principles of Ecology (Biol. 3110)		4
Principles of Genetics (Biol. 3120)		4
Principles of Evolutionary Biology (Biol. 3130)		4
Principles of Physiology (Biol. 3150)		4

Concentration in Advanced Biological Science

Electives in biological science. (May include up to 9 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; Earth Science 3400; Geog 4210; other courses subject to approval prior to registration by petitioning the department.)	15-22
Total units	100

Illustrative Program for the Biological Science Major

<i>First Year</i>		<i>Units</i>
Biol. 1101,-2,-3. Foundations of Biological Science.....		15
Chem. 1101,-2,-3. General Chemistry.....		15
Mathematics, Statistics, or General Education.....		14-18
<i>Second Year</i>		
Biol. 3110. Principles of Ecology		4
Biol. 3120. Principles of Genetics.....		4
Biol. 3140. Principles of Development Biology.....		4
Chem. 2301,-2 or 3301,-2,-3. Organic Chemistry		8 or 15
Phys. 2701,-2,-3. Introductory Physics.....		12
General Education Courses		10-12
<i>Third Year</i>		
Biol. 3130. Principles of Evolutionary Biology		4
Biol. 3150. Principles of Physiology		4
Biology electives		12-20
General Education and/or Electives.....		15-20
<i>Fourth Year</i>		
Biology electives		12-24
General Education and/or Electives.....		25-35

Biomedical Laboratory Sciences Option

The Biomedical Laboratory Sciences Option (Medical Technology 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. Biomedical Laboratory Sciences is also recommended for students contemplating work in Public Health, industrial microbiology, quality control, sanitation, and graduate work in related fields.

The Option consists of the following program:

- I. See statement under General Option above.
- II. Complete the following core requirements:

<i>Physical Sciences and Mathematics</i>		<i>Units</i>
General Chemistry (Chem. 1101-2-3)		15

† Transfer students who have taken an introductory college course in biology, botany or zoology will be placed in the appropriate quarter of Biol. 1101-2-3 to complete their background, or exempted from one or more of these three courses on the basis of a placement examination. More advanced transfer students may be exempt from completion of these courses on the basis of advanced courses already completed.

Organic Chemistry (Chem. 2301-2, or 3301-2-3)	8 or 15
College Algebra (Math 1130) or Elementary Functions and Coordinate Geometry (Math 1300) or Calculus I (Math 1304)	4
Statistical Methods in Biology I (Stat. 3031)	4
Introductory Physics (Phys. 2701, 2, 3)	12

Biological Science Core Program

<i>Biological Science Core Program</i>		<i>Units</i>
Foundations of Biological Science (Biol. 1101-2-3)		15
Principles of Genetics (Biol. 3120)		4
Principles of Physiology (Biol. 3150)		4
III. Complete the following option requirements:		
Quantitative Analysis (Chem. 2200)		5
Clinical Biochemistry I, II (Chem. 3411, 3412)		10
Microbiology (Biol. 3405)		6
Medical Mycology (Biol. 3420)		4
Hematology (Biol. 3430)		4
Medical Parasitology (Biol. 3440)		4
Medical Microbiology I (Biol. 4411)		5
Medical Microbiology II (Biol. 4412)		5
Immunology and Serology (Biol. 4430)		5
Immunohematology (Biol. 4440)		3
Total units in option		51
Total units in major with this option		117-124
General Education Requirements		
(not satisfied by major)		56
Free Electives		6-13
		186

Additional recommended elective courses:

<i>Additional recommended elective courses:</i>		<i>Units</i>
Epidemiology (Biol. 3410)		2
Radiation Biology (Biol. 4120)		3
Human Genetics (Biol. 4160)		4
Medical Entomology (Biol. 4320)		4
Microbial Physiology (Biol. 4455)		5
Medical Technology Seminar (Biol. 4481)		1
Introduction to Programming and Business Computer Systems (Acct. 2270)		4
or		
Elementary Computer Programming (Math 1700)		4
Theories of Management (Mgmt. 3600)		4
Personnel Administration (Mgmt. 3610)		4

Illustrative Program for Biomedical Laboratory Sciences Option

<i>First Year</i>		<i>Units</i>
Biol. 1101, 1102, 1103. Foundations of Biological Science.....		15
Chem. 1101, 1102, 1103. General Chemistry.....		15
Math. 1130 or 1300. College Algebra or Elementary Functions and Coordinate Geometry		4
<i>Second Year</i>		
Chem. 2200. Quantitative Analysis.....		5
Chem. 2301, 2302. Survey of Organic Chemistry		8
Phys. 2701, 2702, 2703. Introductory Physics.....		12
Stat. 3031. Statistical Methods in Biology.....		4
Total Lower Division Units		63

	Units
<i>Third Year</i>	
Biol. 3120. Genetics	4
Biol. 3150. Principles of Physiology	4
Biol. 3405. Microbiology	6
Biol. 3430. Hematology	4
Chem. 3411, 3412. Clinical Biochemistry I, II	10
<i>Fourth Year</i>	
Biol. 3420. Medical Mycology	4
Biol. 3440. Medical Parasitology	4
Biol. 4411, 4412. Medical Microbiology I, II	10
Biol. 4430. Immunology and Serology	5
Biol. 4440. Immunohematology	3
Total Upper Division Units.....	54

Minor in Biological Sciences

This 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. Such completion is indicated on the student's University records.

Option I Basic Biology (especially for majors in the School of Science)

Chem. 1101, -2, -3 or Chem. 1601, -2, -3	15
Biol. 1101 and 1102 and/or 1103	10-15
Two courses related to student's objectives selected from Biol. 3110, 3120, 3130, 3140 and/or 3150	8
Upper division biology elective courses: Two or three courses (if both Biol. 1102 and 1103 are elected, only two courses for a total of 10 units need be taken)	10-12
Total units in Option I	45-48

Option II Natural History (of particular interest for majors in Recreation, Geography, Physical Education, Art, and Pre-credential students)

Chem. 1100 or 1601.....	5
Biol. 1000, 2030, and 2040	13
Biol. 3020 or 3120	4
Biol. 3110 or 3031	4
Upper division biology elective courses: Three courses, one of which must have field experience	12-15
Total units in Option II	38-41

Option III Human Biology (of particular interest for majors in Anthropology, Human Development, Sociology, Nursing, Psychology, Health Sciences, and Physical Education/Kinesiology)

Chem. 1100 or 1601.....	5
Biol. 1000, 2061, 2062	13
Bio 3020.....	4
Upper division biology electives appropriate to Human Biology: Three or four courses elected from Biol. 3000. Basic Physiology of the Cell (4) Biol. 3060. Human Sexuality (4) *Biol. 3130. Principles of Evolutionary Biology (4) *Biol. 3580. Vertebrate Natural History (5) Biol. 4010. Microbes and Man (4) Biol. 4060. Medical Physiology (4) *Biol. 4160. Human Genetics (4) *Biol. 4518. Animal Behavior (5)	14-16
Total units in Option III	36-38

* Requires specific Biology prerequisites or consent of instructor.

Biological Science Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)

Area IIA	
Biol. 2030 (4 units)	
Area VA	
Biol. 2040 (4 units)	
Biol. 3031 (4 units)	
Biol. 4020 (4 units)	
Biol. 4145 (4 units)	
Approved Biology elective, selected from Biol. 2061, 2062, 3000, 3020, 3040, 3050, 3115, 3210, 4005, 4010, 4130, 4230, 4610 (3 units minimum)	

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

Area IIA	
Biol. 2030 (4 units)	
Area VA	
Biol. 2040 (4 units)	
Biol. 3000 (4 units)	
Biol. 3031 (4 units)	
Biol. 4020 (4 units)	
Biol. 4145 (4 units)	
Approved Biology electives, selected from 2061, 2062, 3000, 3020, 3040, 3050, 3115, 3210, 4005, 4010, 4130, 4230, 4610 (12 units minimum)	

Illustrative Program for Liberal Studies Option in Biological Science, Multiple Subject Credential Track (path for students seeking provisional credential as undergraduates)

Only science and mathematics courses are shown. For required courses in English, Social Sciences and the Arts see pp. 337-339.

	Units
<i>First Year</i>	
Biol. 1000. Principles of Biology	5
Chem. 1100. Introduction to College Chemistry	5
Phys.Sci. 1340. Principles of Physical Science	5
<i>Second Year</i>	
Biol. 2030. Survey of the Plant Kingdom.....	4
Biol. 2040. Survey of the Animal Kingdom.....	4
<i>Third Year</i>	
Biol. 3031. Nature Study	4
Biol. 4145. Problems and Practice of Conservation	4
Biol. 4020. Field Natural History.....	4
Math. 4021. Number Systems.....	4
Math. 4022. Geometry.....	4
Math. 4023. Functions.....	4
<i>Fourth Year</i>	
Biology Elective.....	3-4

Illustrative Program for Liberal Studies Option in Biological Science, Liberal Arts Track

(Also Credential Track: path for students seeking credential after graduation)

Only science and mathematics courses are shown. For required courses in English, Social Sciences and the Arts see pp. 337-339.

<i>First Year</i>	<i>Units</i>
Biol. 1000. Principles of Biology	5
Chem. 1100. Introduction to College Chemistry	5
Math. 1110. Introduction to Mathematical Ideas	4
Phys. Sci. 1340. Principles of Physical Science.....	5
<i>Second Year</i>	
Biol. 2030. Survey of the Plant Kingdom.....	4
Biol. 2040. Survey of the Animal Kingdom.....	4
Math. 1300. Elementary Functions and Coordinate Geometry.....	4
Stat. 1000. Elementary Probability and Statistics.....	5
<i>Third Year</i>	
Biol. 3000. Basic Physiology of the Cell	4
Biol. 3031. Nature Study	4
Biol. 4145. Problems and Practice of Conservation	4
Biol. 4020. Field Natural History.....	4
Biology Electives.....	4
<i>Fourth Year</i>	
Biology Electives.....	8

The student choosing this option may greatly strengthen his or her emphasis in biological science by electing all or part of his or her 25-33 units of free electives under Area VB from biology or related science courses. See biology liberal studies adviser for list of suggestions.

Single Subject Waiver Program: Life Science

The B.S. Degree Major in Biological Science (excluding Biomedical Laboratory Sciences Option) has been approved by the State Commission on Teacher Preparation and Licensing as a waiver for the examination in the Single Subject Life Science.

Master of Arts in Biological Science

GENERAL INFORMATION

The University offers the Master of Arts degree in Biological Science with options in the fields of Environmental Biology (General Ecology, Vertebrate and Invertebrate Ecology, Marine Ecology, Limnology, Insect Ecology, Plant Ecology or Physiological Ecology) and Physiological Biology (Cell Physiology and Biology, Plant and Animal Physiology, or Microbial Physiology).

REQUIREMENTS FOR THE DEGREE

Admission to the Program

1. The M.A. Program in the Department of Biological Science is open to graduates of accredited institutions who have a baccalaureate degree in any field of the biological sciences and who have achieved a grade point average 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 CSUH.
2. Students must make application for admission to graduate standing in the M.A. degree program to the Graduate Coordinator of the Department of Biological Sciences. Application forms are available through the Department Office. In addition to the above GPA

requirements, the Department requires that 1) three letters of reference be sent directly to the Graduate Coordinator, and 2) the applicant has taken a basic course (or equivalent) in at least two of the following areas: ecology, genetics, and physiology. Students are expected to have had basic courses in mathematics, statistics, inorganic and organic chemistry, and physics. The area omitted, if any, will be treated as a course deficiency 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 stated above, with other undergraduate majors, or with course deficiencies may request special consideration from the Department Graduate Committee.

3. All students admitted to the Program will be admitted as conditionally classified students. At the time of admission the student will be assigned an interim adviser who will aid the student during the first portion of his or her tenure in the Program.
4. Any student not admitted to the Program because of incomplete applications, deficiencies, or failure to meet time dead-lines is urged to enroll in the University as a post-baccalaureate student pending completion and consideration of the application for classification.

Classification in the Program

A conditionally classified student must become fully classified in the Program as set forth in 1, 2, and 3 below and within the specified time limits or the conditional classification will expire and the student will be placed on post-baccalaureate status.

1. ESTABLISH A GRADUATE ADVISORY COMMITTEE BY THE END OF THE SECOND QUARTER AFTER ADMISSION TO THE PROGRAM. One faculty member from the Department of Biological Sciences at CSUH will serve as chair of the Committee and will normally be the major adviser in guiding the student in graduate training. Two other members of the Committee will be chosen in consultation with the major adviser. The Committee will advise on and approve the student's final program including any work and research units counted toward the degree, and also any deficiencies in the areas of math and physics appropriate to the student's option. This Advisory Committee will also administer the oral examination.
2. PASS A QUALIFYING EXAMINATION. Within the first two quarters after admission to the Program the student must take a qualifying examination in his/her area of special option (environmental or physiological biology) administered and evaluated by the Departmental Graduate Committee. This exam is designed to provide information regarding the potential and/or background limitations of the student and also demonstrate the student's ability to integrate his/her special option with general biology at the introductory level. The score on this examination will be either pass, conditional pass, or fail. A student with a conditional pass will be allowed, after consultation with the Departmental Graduate Committee, to repeat those areas of the examination which showed weakness. This second examination must be taken within two quarters after the first examination and can be taken only once. Failure of a student to pass weak areas a second time will result in disqualification from the Program. If the Departmental Graduate Committee determines that the student has failed the entire first examination, the student will be disqualified from the Program. After consultation with the Departmental Graduate Committee, a student failing the qualifying exam may be allowed to reapply for classification. This exam will be given early in the Spring Quarter for the Fall and Winter admissions and in the Fall for the Spring and Summer admissions.
3. COMPLETE BASIC COURSE DEFICIENCIES. If the student lacks a basic course (or equivalent) in ecology, genetics, or physiology, this course must be completed by the end of the fourth quarter following admission to the Program. Course deficiencies in mathematics, statistics, chemistry, or physics must also be completed. In addition, the student's advisory committee may also determine that there are other course deficiencies to be completed.

It is the responsibility of the student to establish a Graduate Advisory Committee, arrange for the qualifying examination, and complete course deficiencies within the time limits stated above.

Advancement to Candidacy

In order to be advanced to candidacy, the student must have:

1. Attained classified standing
2. Completed at least 12 quarter units of satisfactory work beyond the baccalaureate degree suitable for inclusion in an M.A. program in Biological Science as approved by the student's Graduate Advisory Committee. At least 3 quarter units of graduate level course work in residence at CSUH 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 a program.)
3. Received from his/her Advisory Committee approval of either a Plan A or Plan B individual research program.

Curricular Requirements

The M.A. Programs in biological science provide for the degree to be obtained under either PLAN A (thesis) or PLAN B (without thesis).

PLAN A

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. Thesis research 9 units
Complete copies of the thesis must be submitted in accordance with the rules set forth by the University Graduate Office, 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 in area of special option or in areas related to it as approved by the student's Advisory Committee; included must be at least one graduate seminar preferably in the area of special option 14-36 *
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 special option and thesis research. This examination will be open to all faculty.

PLAN B

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 Special Project (Biol. 6899) for preparation of the paper may be included in the program approved by the Advisory Committee for the degree 4 units
(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 option or in areas related to it as approved by the student's Advisory Committee; included must be at least one graduate seminar, preferably in the area of special option 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 special option and review paper. This examination will be open to the faculty.

* May include a maximum of 4 units of Independent Study (Biol. 6900); in certain circumstances exceptions may be granted by the Departmental Graduate Committee.

The following standards will apply to Biol. 6899 for use as a Plan B requirement:

1. 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 adviser.
2. Binding: Bound in fiberboard or other satisfactory binders for permanent storage.
3. Records: The Department will retain a copy of the Special Project in its files.
4. Technical: Typed on 16-pound white paper and with general "thesis" quality, i.e., no strike-overs, etc. Sufficient left-hand margins (1½") should be left for binding.
5. Approval: a) form and style—Department
b) content—advisory committee

Granting the Degree

Upon successful completion of the above requirements for the degree under PLAN A (including completion of the thesis) or under PLAN B, the department will recommend that the candidate be granted the degree.

University-wide requirements include a stipulation that all units included in a program for a master's degree be completed within seven years and that at least 32 of the total units must be in residence at Cal State, Hayward.

UPPER-DIVISION COURSES ACCEPTABLE FOR THE MASTER'S DEGREE

With the approval of his or her Graduate Advisory Committee, a student may elect up to 22 units of appropriate courses at the 3000 or 4000 level in biology or up to 12 units from related fields.

COURSES

UNDERGRADUATE COURSES

COURSES DESIGNED FOR THE BIOLOGICAL SCIENCE MAJOR

1101, -2, -3. Foundations of Biological Science (5, 5, 5)

Biol. 1101. 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 equivalent or consent of instructor. Four hrs. lect., 3 hrs. lab. (W,Sp)

Biol. 1102: 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. 1103: 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)

1920-1999. Directed Group Study (1-4)

3110. Principles of Ecology (4)

Relationships within and among populations in various environments; introduction to population dynamics and species interactions in complex communities and ecosystems; applications to man's welfare. Prerequisites: Biol. 1101-2-3 and Math. 1130 or equivalents; one quarter of either college chemistry or college physics. Three hrs. lect., 3 hrs. lab. and/or field trips (some weekends). (F,Sp,Su)

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 Biol. 4103 not admitted. Prerequisites: one year of college biological science which includes a survey of the animal kingdom. Two hrs. lect., 6 hrs. lab., field trips. (Y)

3120. Principles of Genetics (4)

Physical basis of inheritance, probability, gene structure and function, genes in development, genes in populations. Prerequisites: Biol. 1101-2-3 or equivalents. Four hrs. lect. (A)

3125. Genetics Laboratory (2)

Analysis of selected problems in transmission genetics, gene action, mutation, biochemical and population genetics, using a variety of organisms. Prerequisites: genetics, Biol. 3120 or concurrently; and Chem. 1103. Six hrs. lab. (On demand)

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. 1101-2-3 and 3120 or equivalent. Four hrs. lect. (F,W,Sp)

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. 1101-2-3 and Chem. 1101-2-3, or equivalents; genetics recommended. Three hrs. lect., 3 hrs. lab. (F,W)

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. 1101-2-3, Chem. 2301-2. Three hrs. lect., 3 hrs. lab. (F,Sp)

3201. Biology of Nonvascular Plants (5)

The general biology of algae, fungi, and bryophytes, with emphasis on structure, reproduction, and ecology. Prerequisites: Biol. 1101-2-3. Three hrs. lect., 6 hrs. lab./field. (Y)

3203. Biology of Vascular Plants (5)

A comparative study of the structure, development and phylogeny of vascular plants. Prerequisites: Biology 1101-2-3. Three hrs. lect., 6 hrs. lab./field. (Sp)

3210. Woody Plants of California (4)

Recognition, distribution, and ecological characteristics of native and introduced trees and shrubs of California. Prerequisites: Biol. 1103 or Biol. 2030 and 3031. Two hrs. lect., 6 hrs. lab. or field trips and/or weekend field trips. (F)

3405. Microbiology (6)

The general biology of major groups of microorganisms, including their morphology, metabolism, reproduction, genetics and ecology. Prerequisites: Biol. 1101-2-3 or equivalent, organic chemistry. Four hrs. lect., 6 hrs. lab. (F,Sp)

3410. Epidemiology (2)

The ecology and demography of human diseases and disorders. Prerequisite: Biol. 3405 or equivalent. Two hrs. lect./disc. (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. (Y)

3430. Hematology (4)

Morphology, function and composition of human blood fluids and cells, both normal and diseased. Prerequisites: Biol. 1101-2-3 and two quarters of organic chemistry. Two hrs. lect., 6 hrs. lab. (F,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. 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab. (Y)

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. 1101,-2,-3 or equivalent. Three hrs. lect., 6 hrs. lab. (Y)

3520. Systematic Paleontology (4)

Morphology, paleoecology, evolution, classification, and geologic significance of fossil organisms including monerans, protists, fungi, invertebrate and vertebrate animals, and plants. Cross-listed with E.Sci. 3520. Prerequisites: E.Sci. 2201 or Biol. 1103. Two hrs. lect., 6 hrs. lab. (W)

3521,-2. Invertebrate Zoology (5 each)

The advanced study of the anatomy, embryology, physiology, systematic relationships and evolution of invertebrate groups, excluding insects. Biol. 3521: Protozoa through Annelida. Biol. 3522: Mollusca through Echinodermata. Prerequisites: Biol. 1101-2-3 or equivalent; Biol. 3521 is prerequisite to Biol. 3522. Three hrs. lect., 6 hrs. lab. and/or field trips. (W,Sp)

3560. General Embryology (5)

Morphology of vertebrate development, with experimental analysis of basic mechanisms. Laboratory emphasis on organogenesis in amphibian, bird, and mammal. Prerequisites: Biol. 1101-2-3 or equivalent, and Biol. 3140. Three hrs. lect., 6 hrs. lab. (Y)

3570. Comparative Vertebrate Anatomy (5)

Comparative study of the gross structure of representative vertebrates, emphasizing the evolutionary history of the major organ systems. Prerequisites: Biol. 3140 or equivalent. Three hrs. lect., 6 hrs. lab. (Y)

3580. Vertebrate Natural History (5)

The natural history of fishes, amphibians, reptiles, birds, and mammals, including the ecology, behavior and physiology of these forms, plus field and laboratory work in the identification and techniques of study of living vertebrates. Prerequisites: Biol. 1101-2-3 or equivalent. Three hrs. lect., 6 hrs. lab., field trips.

4103. Marine Ecology (4)

A field-oriented introduction to the interrelationships between marine and estuarine organisms and their environment with emphasis on quantitative data collection and analysis. Cross-listed with MSc. 4103. Prerequisites: Biol. 3110, Stat. 3031 or equivalent and consent of instructor. Two hrs. lect., 6 hrs. lab/field.

4105. Introduction to Taxonomy (3)

Principles and practice of botanical and zoological classification. Exercises on determination of availability and validity of scientific names, use of data, evaluation of type designation and other taxonomic determinations. Prerequisite: one upper division course in vertebrate or invertebrate zoology or botany. One hr. lect., 6 hrs. lab.

4120. Radiation Biology (3)

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, Physics 2703, and college algebra. Two hrs. lect., 3 hrs. lab. (Y)

4125. Limnology (3)

Principles of fresh-water biology; an introduction to the physical, chemical, and biological features of inland waters which determine their biological productivity. Prerequisites: Biol. 3110 or equivalent, a course in general chemistry, or permission of instructor; a course in taxonomy recommended. Three hrs. lect. (Y)

4126. Limnological Methods (3)

Techniques and practice in the study of fresh-water environments; emphasis on water chemistry, thermal cycles, distribution of aquatic biota. Field trips to local habitats. Prerequisites: Biol. 4125 (may be taken concurrently) and consent of instructor. Nine hrs. lab and/or field trips (some weekends).

4130. Biogeography (4)

Principles of the distribution of plants and animals; dispersal, change in geographic range, differentiation of local biotas, and relationships among adjacent and disjunct ecological communities. Prerequisites: Biol. 1000 or Biol. 1101-2-3 or equivalent. Four hrs. lect. (Y)

4145. Problems and Practice of Conservation (4)

Field and laboratory approach to study of current environmental and ecological problems in California. Emphasis on man's impact on the environment. Topics to include resource management, air and water pollution, insecticide use, solid and liquid wastes. Prerequisite: Earth Sci. 3000 recommended. Two hrs. lect., 6 hrs. lab., or field trips.

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. Prerequisites: Biol. 3150 and Biol. 3560 or equivalent. Four hrs. lect. (Y)

4160. Human Genetics (4)

Contributions to human genetics from biochemistry, immunology, cytology, pedigree analysis, population studies, and statistics. Prerequisite: Biol. 3120. Three hrs. lect./disc., 3 hrs. lab. (Y)

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. 1101-2-3 or equivalent; general chemistry and organic chemistry. Three hrs. lect., 6 hrs. lab. (Alt.Y)

4175. Topics in Marine Science (4)

An advanced undergraduate course in a special subject area: lecture, discussion, laboratory, and field components; topics change each term. May be repeated once for credit. Cross-listed with MSc. 4175. Prerequisite: consent of instructor. One to three hrs. lect., 3 or 6 hrs. lab/field. (On demand)

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: genetics, organic chemistry; microbiology recommended. Four hrs. lect. (Y)

4190. Development of Biological Concepts (3)

The development of the major concepts in biology, using original writings of key figures from the Greeks to contemporary biologists. Prerequisite: senior or graduate standing as a biology major, or consent of the instructor. Two hrs. lect., 2 hrs. act.

4200. Plant Taxonomy (4)

Principles of plant taxonomy. Field and laboratory studies of native seed plants. Prerequisites: Biol. 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab., field trips. (Sp or Su)

4225. Plant Physiology (5)

The life processes of the higher plants: soil and water relations, photosynthesis, metabolic activities, growth regulators, development and reproduction. Prerequisites: Biol. 1101-2-3 and Chem. 1101-2-3. Three hrs. lect., 6 hrs. lab. (Y)

4230. Economic Plants (4)

The significance of plants in the development of human culture. Prerequisites: Biol. 1000 or Biol. 1101-2-3 or equivalent. Three hrs. lect., 3 hrs. lab. and/or field trips. (Y)

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. 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab., field trips. (Y)

4310. Insect Identification (4)

Collection and preparation of specimens, classification of insects, principles of taxonomy, and entomological literature. Prerequisites: 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab., field trips. (Y)

4320. Medical Entomology (4)

Insects and related arthropods as transmitters of disease; public health problems arising from insects not transmitting disease. Prerequisites: Biol. 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab, field trips. (Alt.Y)

4330. Agricultural Entomology (4)

The biology, ecology, identification, distribution and control of insects attacking agricultural crops and stored products. Prerequisites: Biol. 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab., field trips. (Su, alt. yrs.)

4411. Medical Microbiology I* (5)

The pathogenesis and mechanisms of infection of bacterial diseases of man; isolation and identification of selected groups of microorganisms. Not open to students who have completed Biol. 4410. Prerequisite: Biol. 3405. Three hours lect., 6 hrs. lab. (Y)

4412. Medical Microbiology II* (5)

Mechanisms in host-parasite relationships of pathogenic anaerobic bacteria, acid-fast bacteria, and related organisms; antibiotic susceptibility of pathogenic bacteria. Prerequisite: Biol. 3405. May be taken prior to Biol. 4411. Three hrs. lect., 6 hrs. lab. (Y)

4430. Immunology and Serology (5)

Specific and nonspecific reactions in immunity; manifestations of antigen-antibody reactions, hypersensitivity and transplantation immunity. Prerequisite: Biol. 3405. Three hrs. lect., 6 hrs. lab. (Sp)

4440. Immunohematology (3)

Theories and techniques of blood banking, including all aspects of blood groups and transfusion. Prerequisite: Biol. 3120. Two hrs. lect., 3 hrs. lab. (Y)

4455. Microbial Physiology (5)

Growth, nutrition, metabolism and genetics of microorganisms with emphasis on bacteria. Prerequisites: general microbiology, organic chemistry, biochemistry, or permission of instructor. Three hrs. lect., 6 hrs. lab. (On demand)

4481-9. Medical Technology Seminar (1 each)

Discussion of current topics of medical technology, including social, ethical, and legal aspects. Prerequisites: senior standing and permission of the instructor. One hr. seminar disc. (Y)

4501,-2. Comparative Animal Physiology (5 each)

Physiological processes fundamental to invertebrate and vertebrate animals. Emphasis on their ability to cope with internal and external environmental changes. Prerequisites: Biol. 3150 or consent of the instructor. Three hrs. lect., 6 hrs. lab.

Biol. 4501: Physiology of nutrition, digestion, circulation, metabolism, excretion and endocrine systems.

Biol. 4502: Physiology of integration of systems in the major animal phyla in relation to ecology and the evolution of physiological function. Prerequisite: Biol. 4501 or consent of instructor.

4505. General Endocrinology (4)

Anatomy, physiology, and biochemistry of the endocrine system in vertebrate and invertebrate organisms. Prerequisite: Biol. 3150. Three hrs. lect., 1 hr. disc. (Y)

*Immunizations will be required. Prospective students should consult with instructor prior to beginning of course.

4515. Animal Ecology (4)

Interaction of environmental factors and animal populations treated singly and in communities, with practical experience emphasizing terrestrial types. Prerequisites: Biol. 1102 and 3110 or equivalents; Biol. 4300 or 4310 or a course in invertebrate zoology. Two hrs. lect., 6 hrs. lab. and/or field. (Alt.Y)

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. 1101-2-3. Three hrs. lect., 6 hrs. lab./field. (Y)

4530. General Parasitology (4)

An introduction to parasitism; emphasis on the structure, physiology, life histories and pathology of parasitic animals. Prerequisites: Biol. 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab. (Y, alt. yrs.)

4540. Protozoology (4)

The systematics, morphology, differentiation, physiology and genetics of the protozoa with laboratory emphasis on experimental approach. Prerequisites: completion of the Biological Sciences core program or consent of instructor. Two hrs. lect., 6 hrs. lab.

4570. Ichthyology (4)

The ecology, physiology, ethology, identification and evolution of the fishes of California and coastal waters. Prerequisites: Biol. 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab. and/or field trips. (Y)

4575. Herpetology (4)

The ecology, physiology, ethology, identification and evolution of amphibians and reptiles with emphasis on western forms. Prerequisites: Biol. 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab., and/or field trips. (Alt.Y)

4580. 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 laboratory work emphasizing western U.S. forms. Prerequisites: Biol. 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab., field trips. (Sp)

4585. Mammalogy (4)

The ecology, physiology, ethology, identification and evolution of mammals with emphasis on western forms. Prerequisites: Biol. 1101-2-3 or equivalent. Two hrs. lect., 6 hrs. lab., and/or field trips. (Y)

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. Prerequisites: Biol. 1101-2-3; junior standing. Three hrs. lect., 6 hrs. lab-field. (W)

4610. Biological Illustration (3)

Instruction and practice in drawing vertebrates, invertebrates and plants; microscopic and cross-section views, external and internal structure, life cycles and systems. Experience in preparing maps, graphs and charts from scientific data. Prerequisite: Biol. 1000 or equivalent. One hr. lect., 6 hrs. lab. (Y)

4620. Biological Instrumentation (4)

Basics of electronics and instrument systems; applications of physical measuring devices to biological preparations and laboratory work with basic circuits, systems and applications to study of live organisms. Prerequisite: Biol. 1101-2-3 and Introductory Physics. Two hrs. lect., 6 hrs. lab.

4630. Biological Photography (4)

Photography as an integral part of biological science. Photography of living plants and animals in laboratory and field. Macrophotography and photomicrography. Use of photogra-

phy in research and in documenting scientific programs. Prerequisites: upper-division standing in science, M.Com. 2700; or equivalent background. Two hrs. lect., 6 hrs. lab., field trips. (Y)

4801-9. Proseminar (2 each)

An undergraduate seminar providing an introduction to current topics in biological research. Topics will vary each quarter course is given. May be repeated for a maximum of 6 units total. Prerequisites: Senior standing and consent of instructor. Two hrs. sem./disc.

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)****5411, -12, -13. Medical Technology Training (6 each)**

Clinical laboratory techniques and procedures. Correlation of laboratory findings with normal and diseased states. Prerequisites: Baccalaureate degree, valid Clinical Laboratory Technologist Trainee's license, acceptance to affiliated hospital training program. May enter any quarter. Four hrs. lect., 4 hrs. act.

**COURSES DESIGNED FOR THE NON-MAJOR
(Not Open for Biology Major Credit)**

1000. Principles of Biology (5)

Plants and animals and the modern biological concepts that apply to their structure and function on cellular, organismal and population levels. Special emphasis on man and his relationships with other living things. *Not for biology major credit.* Four hrs. lect., 1 hr. disc. (A)

2030. Survey of the Plant Kingdom (4)

General biology of the major plant groups, other than bacteria, stressing the fundamentals of classification, morphology, physiology and reproduction. Prerequisite: Biol. 1000 or equivalent. Not open to students who have completed the Biol. 1101-2-3 sequence. Three hrs. lect., 3 hrs. lab. (Y)

2040. Survey of the Animal Kingdom (4)

Introduction to the anatomy, physiology, classification, and evolution of the major animal phyla. Prerequisite: Biol. 1000 or equivalent. Not open to students who have completed the Biol. 1101-2-3 sequence. Three hrs. lect., 3 hrs. lab. (Y)

2061-2. Anatomy and Physiology (4 each)

Introduction to structure and function of human systems. *Not for biology major credit.* Prerequisites: Biol. 1000, or Biol. 1101-2-3 or equivalent; one year of high school chemistry or Chem. 1100 or equivalent. Biol. 2061 is prerequisite to Biol. 2062. Three hrs. lect., 3 hrs. lab. (2061-F, W; 2062-W, Sp)

3000. Basic Physiology of the Cell (4)

Basic concepts of cellular physiology and molecular biology, including photosynthesis, respiration, and molecular aspects of genetics. *Not for biology major credit.* Prerequisites: Biol. 1000, Chem. 1100, and Phys. Sci. 1340 or equivalents. Three hrs. lect., 3 hrs. lab. (Y)

3020. Genetics, Evolution, and Man (4)

Principles of genetics, their application to human problems, and to theories of evolutionary change, including the evolution of man. *Not for biology major credit.* Prerequisite: Biol. 1000 or equivalent. Four hrs. lect. (Tent. F, W)

3031. Nature Study (4)

Natural history in the field and laboratory, with emphasis on plants and animals. Prerequisite: basic course in biology. *Open for credit to biology majors on petition to the department.* Two hrs. lect., 6 hrs. lab. and/or field trips. (F,Sp)

3032. Nature Study (4)

Natural history in the field and laboratory, with topics from geology, meteorology, and

astronomy. Prerequisite: basic course in physical science. Not open for credit to physical science majors. *Not open for biology major credit.* Two hrs. lect., 6 hrs. lab. and/or field trips. (W)

3040. Evolution of Sex (4)

The origin and evolution of sexual reproduction and reproduction behavior in the animal kingdom; emphasis on human sexuality. *Not for biology major credit or for students who have taken Biol. 3060.* Prerequisites: Biol.1000 or equivalent or consent of instructor. Four hrs. lect.

3050. Animal Communication (4)

A survey of chemical, tactile, auditory, and visual communicative channels used by man and lower animals. *Not for biology major credit.* Prerequisites: Biol. 1000, or equivalent, or consent of instructor. Four hrs. lect.

3060. Human Sexuality (4)

Anatomy, physiology of normal adult function; development and patterns of normal and deviant behavior; legal and moral problems. Not for biology major credit nor to students who have taken Biol. 3040. Prerequisites: Biol. 1000 or equivalent, or consent of instructor. (Y)

4005. Insects and Man (4)

Beneficial and harmful insects and related arthropods as important factors in human welfare. Specific emphasis is placed on ecological principles and socio-economic factors. Prerequisites: Biol. 1000, or Biol. 1101-2-3 or equivalent. *Not for Biology major credit.* Four hrs. lect.

4010. Microbes and Man (4)

An analysis of man's struggle against disease from earliest times to the present, highlighting the economic, social, and scientific significance of the great diseases. *Not for biology major credit.* Prerequisites: Biol. 1000, or Biol. 1101-2-3 or equivalent. Four hrs. lect. (Y)

4020. Field Natural History (4)

A survey of the fauna, flora and natural features of typical coast range biotic communities, followed by practice in conducting nature hikes and directing youth groups in nature activities. Prerequisite: Biol. 3031 or a biology field course or permission of instructor. Two hrs. lect., 6 hrs. lab. and/or field trips. (Su)

4060. 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. Open for credit to biology majors on petition to the department. Prerequisites: Biol. 2061 and 2062, or equivalent, or consent of instructor. (Y)

MARINE SCIENCE COURSES

(See *Marine Sciences*, page 344, for the following courses)

MSc. 4102. Marine Science Techniques (4)**MSc. 4103. Marine Ecology (4)****MSc. 4105. Marine Science Diving (3)****MSc. 4106. Subtidal Ecology (4)****MSc. 4111. Zoology of Marine Vertebrates (4)****MSc. 4112. Marine Birds and Mammals (4)****MSc. 4113. Marine Ichthyology (4)****MSc. 4122. Marine Invertebrate Embryology (4)****MSc. 4123. Marine Invertebrate Physiology (4)****MSc. 4124. Marine Invertebrate Zoology I (4)****MSc. 4125. Marine Invertebrate Zoology II (3)****MSc. 4131. Marine Phycology (4)****MSc. 4132. Introduction to Marine Plankton (4)****MSc. 4161. Marine Fisheries (4)****MSc. 4171. Oceanographic Summer Cruise (4)****MSc. 4172. Marine Environment Group Research (3)****MSc. 4175. Topics in Marine Science (3-4)****MSc. 4177. Microscope Techniques (3)****MSc. 4900. Independent Study (1-4)****MSc. 4920-4999. Directed Group Study (1-4)****SCIENCE EDUCATION COURSES****5110. Science in the Secondary School (Biological Science) (3)**

Curriculum, materials, audiovisual techniques, content, and inquiry methods for secondary school biological science. A similar course, with emphasis on physical science is offered periodically. Prerequisite: consent of instructor. Two hrs. lect., 3 hrs. lab. (Y)

5201. Concepts of Marine Science (3)

(Offered at the Moss Landing Marine Laboratories)

Major principles and concepts of marine sciences; analysis of research from recent scientific literature. Development of laboratory exercises. Designed for school teachers, teaching credential students. Not open to marine science majors. Prerequisites: MSc 4101 or ESc 3400, MSc 4103, or consent of instructor. Two hrs. lect., 3 hrs. lab. (Su, on demand)

5900. Independent Study (1-4)**5920-5999. Directed Group Study (1-4)****GRADUATE COURSES****BIOLOGY COURSES****6101-9. Selected Topics in Physiology (3 each)**

Current research in endocrinology, neural physiology, subcellular physiology, visual pigments, phototropism, etc. Topics will vary each quarter. Prerequisite: consent of instructor and graduate standing. May be repeated once for additional credit. Three hrs. lect/disc. (Y)

6110. Desert Biology (4)

Study, observation, collection, identification and preservation of desert plants and animals. Physiological measurements on desert insects, amphibians, reptiles and mammals, with the physical and climatic state of the environment to be recorded. Prerequisite: consent of instructor. Two hrs. lect., 6 hrs. lab and field trips. (Su, alt. yrs.)

6125. The Marine and Fresh-Water Plankton (5)

Distribution, life history, and taxonomy of the common forms of plankton which occur in marine, estuarine, and fresh-water habitats; identification, ecology, collection, and enumeration techniques. Prerequisites: Graduate standing in biology and consent of instructor. Three hrs. lect., 6 hrs. lab, and field trips. (Y, alt. yrs)

6131. Principles and Practice of Vector Control (4)

Advanced medical entomology. Intensive study of principal disease vectors and public health

pests, with emphasis on analysis of ecological and control problems. Prerequisite: Biol. 4320. Two hrs. lect., 6 hrs. lab. and field. (F) (On demand)

6151, -2, -3. Cell Biology (4, 4, 4)

Structure and function of pro- and eukaryotic cells emphasizing differentiation, cell duplication, response to environment, and molecular biology. Prerequisites: Graduate standing, Biol. 4170 or equivalent, and one quarter of biochemistry. Two hrs. lect., 6 hrs. lab. (F,W, Sp)

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. Prerequisites: Biol. 3110. Recommended: Biol. 4200, 4310, 4515, and advanced taxonomic courses in zoology. Two hrs. lect., 6 hrs. field (or lab). (Sp or Su, alt. yrs.)

6170. Population Ecology (4)

Factors affecting reproduction, age composition, turnover, density and dispersion, and their fluctuations in time among populations of animals, with brief comparisons from studies of plants. Prerequisite: Biol. 3110. Genetics, statistics and advanced zoology courses recommended. Three hrs. lect., 3 hrs. lab. and/or field trips. (Y)

6201-9. Selected Topics in Botany (3 each)

Advanced considerations of structure, morphogenesis, physiology, genetic systems, population studies and systematics. Emphasis will be on current research and literature. Topics will vary from quarter to quarter. Course may be repeated once for credit. Prerequisites: Biol. 3201-2-3 or consent of instructor. Three hrs. lect./disc. (Y)

6220. Mycology (4)

The identification, ecology, and study of representative groups of fungi. Prerequisites: Biol. 1101, 1102, 1103 or equivalent and Biol. 3201. Two hrs. lect., 6 hrs. lab and/or field trips. (On demand)

6230. Plant Ecology (5)

The relationship of plants to climate, soil and other organisms. Prerequisite: Biol. 1101, 1102, 1103, 3110, or equivalent. Plant Physiology is strongly recommended. Three hrs. lect., 6 hrs. lab and/or field trips. (Sp)

6310. Insect Ecology (4)

Insects in relation to their environment, insect development, distribution, dispersal, behavior and abundance. Prerequisites: Biol. 3110, 4300 and one of the following: Biol. 4310, 4320, 4330. Two hrs. lect., 6 hrs. lab., and/or field trips. (On demand)

6420. Advanced Medical Microbiology (5)

A detailed study of selected infectious diseases of man and animals, including the biochemical aspects of host-parasite interaction. Prerequisites: Biol. 4410 or equivalent. Three hrs. lect., 6 hrs. lab. (Tent. Sp)

6430. Selected Topics in Biochemistry Laboratory (3)

(See Chem. 6430 for course description.)

6510. Physiological 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. Laboratories concerned with student projects within the area of study. Prerequisites: Biol. 3521, 3522, and one course from among Biol. 3580, 4570, 4575, 4580, 4585. Two hrs. lect., 6 hrs. lab., field trips. (Sp)

6521-29. Topics in Invertebrate Zoology (3 each)

Advanced considerations of the ecology, morphology, physiology and phylogeny of the various invertebrate phyla emphasizing current literature and research. Topics and emphasis

will vary from term to term and the course may be repeated once for credit. Prerequisites: Invertebrate zoology and permission of the instructor. Two hrs. lect., 3 hrs. lab., field, or projects. (Y)

6570. Wildlife Ecology (4)

The major principles of wildlife ecology as applied in mammalian and avian game species, with practical work to include field application of some of these principles. Prerequisites: Biol. 3110 or Biol. 3580. Three hrs. lect., 3 hrs. lab and/or field trips (Alt.Y.).

6581, -2. Mammalian Systems Physiology (5,5)

Advanced treatment of the principles of regulation and control in mammalian organ systems. Laboratory emphasis on techniques of anesthesia, surgery, instrumentation operation and analysis of data. Prerequisites: Graduate standing; Biol. 3150 or 4501 or equivalent. 6581 is prerequisite to 6582. Three hrs. lect., 6 hrs. lab. (Alt. W, Sp)

6590. Analysis of Vertebrate Faunas (4)

Intensive study of vertebrates of selected regions chiefly of western North America. Training in collection and preparation of specimens, in the accurate recording of habitat and behavioral information, and in the discovery of pertinent evolutionary histories. Prerequisites: Biol. 3110 and two courses from among Biol. 3570, 3580, 4570, 4575, 4580, 4585, or equivalent. One hr. lect., 9 hrs. field and lab. (Y, alt. yrs)

6610. Electron Microscopy (2)

Theoretical principles of tissue preparation with some consideration of special techniques used in biological ultrastructure. Theory of electron lenses will be discussed. Prerequisite: Graduate standing or permission of instructor. Two hrs. lect. (Y)

6611. Electron Microscopy Laboratory (2)

Instruction and practice in preparing biological specimens for electron microscopy. Students will learn to operate the electron microscope and do ultrastructure research. Prerequisite: Permission of instructor. Six hrs. lab. (Y)

6801-9. Graduate Seminar—Ecology (3 each)

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. Prerequisites: Graduate standing in biology or consent of instructor. Three hrs. seminar, disc. (Y)

6811-19. 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. Prerequisites: Graduate standing in biology or consent of instructor. This course may be repeated once for additional credit. Three hrs. seminar, disc. (Y)

6851, -9. Graduate Seminar—Zoology (3,3)

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. Prerequisites: Graduate standing in biology or consent of instructor. Three hrs. seminar, disc. (Y)

6899. Special Project (1-4)

6900. Independent Study (1-4)

6910. Thesis Research (1-9)

6920-6999. Directed Group Study (1-4)

MARINE SCIENCES COURSES *

(Offered at the Moss Landing Marine Laboratories)

6202. Marine Instrumental Analysis (4)

Theory and use of advanced instrumentation; advanced field and lab techniques for the interpretation of data collected in marine science research. Prerequisites: MSc. 4101 or ESc. 3400, MSc. 4102, Chem. 2200. Two hrs. lect., 6 hrs. lab. (Alt. F)

6203. Advanced Marine Ecology (3)

Advanced considerations of marine populations, communities, and ecosystems with emphasis on current literature. Prerequisites: MSc. 4103, or Biol. 3110 and consent of instructor. Two hrs. lect., 3 hrs. lab, field and discussion. (Sp)

6211. Behavior of Marine Animals (3)

The causation, development, and evolution of the behavior of marine animals. Prerequisites: Biol. 1102, MSc. 4104 or Stat. 3031. Two hrs. lect., 3 hrs. lab/field. (On demand)

6212. Topics in Marine Vertebrates (4)

Advanced consideration of the ecology, physiology, and phylogeny of fishes, birds, or mammals, emphasizing current literature and research. Topics and emphasis will vary with term and instructor. May be repeated once for credit. Prerequisites: MSc. 4111 or Biol. 3580. MSc. 4112, 4113, or Biol. 4570, and consent of instructor. Two hrs. lect., 6 hrs. lab. (F, Alt. Sp)

6221. Topics in Marine Invertebrates (4)

Advanced considerations of the ecology, physiology, and phylogeny of the various invertebrate phyla emphasizing current literature and research. Topics and emphasis will vary from term to term. May be repeated once for credit. Prerequisites: MSc. 4121 or Biol. 3521,-2 and consent of instructor. Two hrs. lect., 6 hrs. lab. (On demand)

6222. Biology of the Mollusca (4)

Systematics, functional morphology, ecology and physiology of the mollusca with emphasis on marine forms. Prerequisites: MSc. 4121 or Biol. 3521,-2 and consent of instructor. Two hrs. lect., 6 hrs. lab. (Alt. Sp)

6231. Advanced Marine Phycology (4)

Current topics in algal development, reproduction, and ecology. Extensive reading of original literature. Ecologically oriented individual research projects involving lab culture and field experimentation. Prerequisites: MSc. 4131 or equivalent, consent of instructor. Two hrs. lect., 6 hrs. lab. field. (On demand)

6232. Advanced Marine Plankton (4)

Emphasis on the physiology of phytoplankton and zooplankton. Individual research projects that include literature review, lab work, and reports. Not open to students who have taken Biol. 6125. Prerequisites: MSc. 4132. Two hrs. lect., 6 hrs. lab/field. (Sp)

6241. Marine Micropaleontology (3)

A study of living and fossil microorganisms with emphasis on environmental significance. Prerequisites: MSc. 4121 or Biol. 3521,-2, ESc. 1001 or consent of instructor. Two hrs. lect., 3 hrs. lab. (Alt. Sp)

6252. Topics in Marine Chemistry (4)

Selected topics dealing with the biochemistry or geochemistry of the oceans. May be repeated once for credit. Prerequisites: Consent of instructor, MSc. 4101 or ESc. 3400. Two hrs. lect., 6 hrs. lab. (On demand)

* Courses listed under Marine Sciences are offered on a semester basis in the Fall and Spring. Each unit is credited as 1½ quarter units. In the Summer courses are operated on a quarter basis, and units are credited as shown.

6271. Population Biology (3)

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 who have taken Biol. 6170. Prerequisites: MSc. 4103, 4104 or Stat. 3031, and consent of instructor. Two hrs. lect., 3 hrs. lab/field. (On demand)

6273. Environmental Studies of Monterey Bay Area (3)

Advanced aspects of marine sciences, topics determined by consultation with faculty and dependent on facilities available. Laboratory and field studies will be carried out by individuals or as joint research projects by several individuals. Research topics to be concerned with local marine problems. Prerequisites: MSc. 4103 and 4104 or consent of instructor. Two hrs. lect., 3 hrs. lab/field. (Y)

6275. Advanced Topics in Marine Science (2-5)

Advanced aspects of marine sciences, topics determined by faculty and facilities available. Course may be repeated once for credit. Prerequisites: Graduate standing and consent of instructor. Lect. and/or lab. (variable). (On demand)

6285. Graduate Seminar in Marine Biology (2)

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)

6900. Independent Study (1-4)**6910. Thesis Research (1-9)****6920-6999. Directed Group Study (1-4)**

BLACK STUDIES

(Department of Black Studies; School of Arts, Letters and Social Sciences)

Professor: Edward E. France

Assistant Professor: Wendell Brooks

Lecturers: Effie Clark, Willie Jackson, Jacqueline Knighten, William Love, Charles Macklin, Johannes Masare, Arthur Scott, R. C. Thomas

PURPOSES

The Department of Black Studies offers a program of courses leading to the Bachelor of Arts Degree with a choice of two options. The first option places greatest curricular emphasis in the areas of Humanities, History and the Performing Arts; the second, on Economics, Political and Social Issues. The degree is designed to give an interdisciplinary approach to the study of Black people in the United States and, to a lesser extent, throughout the world. Since the two options generally fall within the history and social science area, the degree is useful as a basis for post graduate work in some social sciences, law, and municipal and state government. Probably equally important are the advantages it gives for opportunities to work in community service organizations related to the problems of various minority groups.

The Black Studies Major Leading to a B.A. Degree

Requirements

- I. Complete the 76-unit requirement in general education required for the B.A. and B.S. degrees. Students who complete this major may apply up to 16 units of Art, Drama, English literature, History, Music, and Philosophy courses in satisfaction of the area requirement in Humanities, up to 16 units in Anthropology, Geography, Political Science, and Sociology courses in satisfaction of the area requirement in Social Science, and up to 8 units of Anthropology, Geography, Political Science, and Sociology courses in satisfaction of the upper-division general education requirements provided they have not already been applied to the Social Science area or elective requirements.

II. Courses in the Black Studies major	76 units
1. Lower Division	24 units
a. Black Studies 1001, -2, -3	(12)
b. Twelve units from Black Studies 1510, 2310, 2320, 2410; Phil. 2110	(12)
2. Upper Division	52 units
a. Black Studies 4890 and 4899	8
b. Twenty-four units in either of the following options: (24)	
(1) Humanities, History, and Performing Arts (24 units)	
Black Studies 3001, -2, -3; 3020, 4010, 4020; Engl. 3691, 3692, 3790;	
Hist. 3565-6; Mus. 3115; Phil. 3510.	
(2) Economics, Political and Social Issues (24 units)	
Black Studies 3110, 4100, 4110, 4120, 4130; Pol. Sci 3260; Soc. 3415, 3520, 4450, 4455	
c. Twenty units of upper division electives chosen from the option not selected as the student's option and/or from other courses in the CSUH curriculum approved by the student's adviser.	
3. Summary of the Major	
Total lower division units required	12
Total lower division units elective	12
Total upper division units required	8
Total upper division units elective	44



Unit Summary

Major: Courses in Black Studies.....	24-76
Courses in supporting fields	0-52

III. Further courses recommended

Knowledge of a foreign language is strongly recommended. (These courses may be applied to the General Education requirement in Basic Subjects.)

Candidates for Teaching Credentials must consult with advisers in the Black Studies Department and in the School of Education.

Black Studies Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)

Area V

BISt. (Hist.) 4515. The Black Man in American History to 1877 (4)

BISt. (Hist.) 4516. The Black Man in American History since 1877 (4)

BISt. 4890. Seminar in Black Studies Methodology (4)

BISt. 4899. Seminar in Black Studies (4)

One of the following courses:

BISt. 3001. Development of African Civilization (4)

BISt. 3002. Development of African Civilization (4)

BISt. 3003. Development of African Civilization (4)

Liberal Arts Track

Credential Track (path for students seeking seeking credential after graduation)

Area V

BISt. (Hist.) 4515. The Black Man in American History to 1877 (4)

BISt. (Hist.) 4516. The Black Man in American History since 1877 (4)

BISt. 4890. Seminar in Black Studies Methodology (4)

BISt. 4899. Seminar in Black Studies (4)

BISt. 3001. Development of African Civilization (4)

BISt. 3002. Development of African Civilization (4)

BISt. 3003. Development of African Civilization (4)

BISt. 4110. Selected Topics in Government and Black Society (4)

or

BISt. 4130. Community Projects (4)

COURSES**1001-2-3. The Black Man in American Civilization (4 each)**

A survey of the Black man in American life and civilization from the Black perspective; emphasis upon historical, socio-economic, political, and psychological aspects; Black contributions to American arts. Four hrs. lect./disc. each.

1001: 1619 to 1860 (F)

1002: 1860 to 1900 (W)

1003: 1900 to contemporary times (Sp)

1510. Rhetoric of the Black Revolution (4)

The development of communicative techniques through a critical examination and evaluation of the speeches and writings of prominent exponents of the Black revolution. Four hrs. lect./disc. (F)

1800. Employment Market for Minorities (3)

Emphasis upon analysis of employment market, procurement, retention, vocational aptitude testing, and the availability of further training in various professions. (A)

1920-1999. Directed Group Study (1-4)**2110. Racial Conflict and Ethical Values (4)**

(See Phil. 2110 for course description.)

2310. Black 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. Four hrs. lect./disc. (Sp)

2320. Racism in America (4)

An examination of racist attitudes, behavior, and policies of America and Americans. Four hrs. lect./disc. (F, W, Sp)

2410. Black Social and Political Philosophy (4)

An analysis of society from the Black perspective and relating to the Black experience. Four hrs. lect./disc. (F)

3001-2-3. Development of African Civilization (4 each)

A survey of the historical, political, and socio-economic aspects of African civilizations; contributions to men's thought and the arts. Four hrs. lect./disc. each.

3001: the beginnings to the 15th century (F)

3002: the 15th century to the 19th century (W)

3003: Emergent Africa: the 20th century (Sp)

3020. The Civil Rights Movement (4)

The historical, socio-economic and political development of the major civil rights movements in the United States. Four hrs. lect./disc. (Sp)

3110. The Politics of Black Power (4)

A study of the practices, effects, and implications of the Black power movement relative to Black communities and national policies. Four hrs. lect./disc. (W)

3565. The Black Man in American History to 1877 (4)

(See Hist 3565 for course description.)

3566. The Black Man in American History Since 1877 (4)

(See Hist. 3566 for course description.)

3691. Black Literature I (5)

(See Engl. 3691 for course description.)

3692. Black Literature II (5)

(See Engl. 3692 for course description.)

3790. Black Literature III (5)

(See Engl. 3790 for course description.)

4010. Slavery in the Western World (4)

A comprehensive study of the institution of slavery and its effect on the Western world. Four hrs. lect./disc. (Y)

4020. Blacks North and West—Ante Bellum U.S. (4)

An intensive study of the lives of Afro-Americans outside the South during slavery. Four hrs. lect./disc. (Y)

4100. Imperialism and Racism in the Americas (4)

An investigation of the contemporary socio-economic, psychological and cultural treatment of Black people in the Western Hemisphere. Four hrs. lect./disc. (F)

4110. Selected Topics in Government and Black Society (4)

A study of political systems and their economic foundations from the Black perspective: a critical analysis of federal, state and local governments and their impact upon Black people; topics to be selected each term. May be repeated once for credit. Four hrs. lect./disc. (F, W)

4120. World Political Theory and Black Protest (4)

A study and evaluation of contributions made by political thinkers throughout the world to the development of Black protest in 20th century America. Four hrs. lect./disc. (W)

4130. Community Projects (4)

Supervised field work in socio-economic and/or political organizations within the community. May be repeated for credit. Two hrs. seminar, 4 hrs. act. (Sp)

4850. Black Educator in the Public School (4)

(See T.Ed. 4850 for course description.)

4890. Seminar in Black Studies Methodology (4)

Methodological problems in Black Studies: examination of research strategies; definition of problem areas. (F, W)

4899. Seminar in Black Studies (4)

Selected topics in Black Studies; preparation of seminar papers on individual research. May be repeated once for credit. (F, W, Sp)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)**

BUSINESS ADMINISTRATION

(Departments of Accounting, Management Sciences, and Marketing;
School of Business and Economics)

Department of Accounting

Professors: Michael Chatfield, Carol Inberg, Alan P. Johnson (Chair), Vernon T. S. Kam, Ching-wen Kwang, Carl G. Orne, Edward T. Ossman

Associate Professors: A. Gregory Buckman, Steven M. Mintz, Denis P. Neilson, Philip P. Storrer, Gary A. Yamashita

Assistant Professors: Sanford M. Guerin, Ray E. Roberts

Lecturers: Charles A. Adams, Suzanne M. Busch, Gerald L. Cockrill, Robert C. Fess, John E. Forde, James R. Gabbard, Doris D. Gottschalk, Stuart G. Gould, Carl H. Hitchner, Gordon E. Louvau, Franklin Lowenthal, Robert C. Nickerson, Theodore E. Reingold, Clifford R. Skousen, Eugene M. Swann, Francis B. Tims, Frederic P. Winslow

Department of Management Sciences

Professors: Scott H. Partridge, John H. Sims (Chair), Paul D. Staudohar, L. Glen Strasburg, William D. Whisler

Associate Professors: William Gotcher, John G. Kilgour, Stephen H. Miller, Bill Mitchell, Henry Rath, Susan D. Schaefer, Allen J. Schuh

Assistant Professors: Annelise Anderson, S. David Aviel, Spyros Economides, Allen D. Franklin, Arnold L. Langsen, John B. Major, William L. Moore, Henry A. Tombari

Lecturers: Charles H. Bell, Gerald Griffin

Department of Marketing

Professor Emeritus: Forrest L. Mayer

Professors: Harry E. Allison (Chair), F. Robert Finney

Associate Professors: Ricardo L. Singson, John J. Villareal

Lecturer: Gerald H. Stoner

Graduate Programs

John G. Kilgour, Director of Graduate Programs

Graduate Faculty Advisers:

Alexander E. Cassuto (M.A./Economics)

L. Glen Strasburg (M.B.A./Finance)

William D. Whisler (M.S./Quantitative Business Methods)

Harry E. Allison (M.B.A./Marketing)

John H. Sims (M.B.A./Management Sciences)

Carol Inberg (M.B.A./Accounting)

Philip P. Storrer (M.B.A./Taxation)

The Business Administration Major Leading to a B.S. Degree

A student's major consists of (1) lower-division requirements, (2) upper-division business administration core requirements, and (3) requirements in one option (accounting, finance, general business, industrial relations and personnel administration, information systems management, marketing management, production and operations management, real estate management). Students expecting to receive a Bachelor of Science degree in Business Administration at CSUH must complete a minimum of 24 units of Business Administration courses at California State University, Hayward.

Lower-Division Requirements

	<i>Units</i>
Acctg. 2251-2. Principles of Accounting I-II	8
Acctg. 2270. Introduction to Programming and Business Computer Systems	4

Acctg. 2701. Legal Environment of Business.....	4
Econ. 2301-2. Principles of Economics I-II.....	8
Math. 1802-3. Mathematics for Business and Social Sciences II, III (See Note).....	8
Psyc. 2000. General Psychology I: Overview.....	5
Stat. 2010. Elements of Statistics for Business and Economics.....	5
Total.....	42

Note: (1) Students who are planning to pursue more quantitative business options are encouraged to enroll in Math. 1304 and 1305 in place of Math 1802-3.
 (2) Prerequisite for Math. 1802 is Math. 1801 *or* satisfactory score on placement exam. Students should contact the Department of Mathematics for details of this exam which is given prior to commencement of each quarter.
 (3) If student's mathematics background is insufficient, Math 1100 may be required as preparation for Math. 1801.

Upper-Division Requirements

(1) Business Administration Core Requirements

Core requirements include the following courses, and should be taken in the order indicated by all business administration majors:

Early Junior Year

Acctg. 3200. Managerial Accounting.....	4
Econ. 3551-2. Managerial Economics I, II.....	8
Mgmt. 3100. Introduction to Quantitative Business Methods.....	5
Mgmt. 3600. Theories of Management.....	4

Late Junior Year

Econ. 3005. Macro-Economic Theory.....	4
Mgmt. 3300. Financial Management.....	4
Mgmt. 3614. Organizational Behavior.....	4
Mgmt. 3680. Industrial Relations.....	4
Mktg. 3401. Introduction to Marketing Management.....	4

Senior Year

Mgmt. 4500. Business, Government, and Society.....	4
Mgmt. 4650. Seminar in Managerial Planning and Control.....	4
Mgmt. 4670. Multinational Business (not required in Accounting or Information Systems Management Options).....	4
Mktg. 4495. Administrative Communications Systems.....	4

Total Upper Division Business Core Requirements..... 57*

(2) Option Requirements

**Accounting
(Accounting Department)**

	<i>Units</i>	
Acctg. 3211-12. Intermediate Accounting I, II.....	8	
Acctg. 3230. Cost Accounting.....	4	
Acctg. 3220. Federal Income Tax Accounting.....		} Choice of two
Acctg. 4230. Advanced Cost Accounting.....		
Acctg. 4240. Advanced Financial Accounting.....		
Acctg. 4250. Auditing.....		
Acctg. 4270. Accounting Information Systems.....		
Acctg. 4280. Governmental Accounting.....		
Total.....	20	

Finance (Management Sciences Department)		
Mgmt. 4320. Problems in Corporate Finance.....	4	
Mgmt. 4370. Seminar in Financial Theory.....	4	
Econ. 3310. Money and Banking.....		} Choice of two
Mgmt. 3320. Capital Markets and Financial Institutions.....		
Mgmt. 4310. Investment Analysis.....		
Total.....	16	

General Business (Management Sciences Department)		
Acctg. 4271. Management of Information Systems.....		} Choice of four
Mgmt. 3610. Personnel Administration.....		
Mgmt. 3620. Introduction to Production Operations.....		
Mgmt. 4320. Problems in Corporate Finance.....		
Mktg. 4420. Sales Analysis and Sales Management.....		
Mktg. 4490. Practicum in Small Business Management.....		
Total.....	16	

Industrial Relations and Personnel Administration (Management Sciences Department)		
Mgmt. 3610. Personnel Administration.....	4	
Mgmt. 3616. Personnel Evaluation.....	4	
Acctg. 4271. Management of Information Systems.....		} Choice of one
Mgmt. 3620. Introduction to Production Operations.....		
Mgmt. 4600. Technological Innovation and Research Management.....		
Mgmt. 4613. Research Methods in Personnel Administration.....		
Mgmt. 4683. Research in Labor Relations.....		
Any 3000 or 4000 level Mgmt. course.....		} Choice of one
Mktg. 4490. Practicum in Small Business Management.....		
Total.....	16	

Information Systems Management (Accounting Department)		<i>Units</i>
Acctg. 3230. Cost Accounting.....	4	
Acctg. 3270. Business Computer Programming Applications.....	4	
Acctg. 4270. Accounting Information Systems Design.....	4	
Math. 3702. Computer Organization and Programming.....		} Choice of two
Mgmt. 3645. Logistics Management.....		
Acctg. 4230. Advanced Cost Accounting.....		
Acctg. 4271. Management of Information Systems.....		
Acctg. 4272. Advanced Topics in Business Computer Systems.....		
Acctg. 4273. Quantitative Analysis in Information Systems.....		
Total.....	20	

* 53 units required for Accounting Option and Information Systems Management Option.

Marketing Management
(Marketing Department)

Mktg. 4410.	Advertising	}	Choice of four	16
Mktg. 4420.	Sales Analysis & Sales Management			
Mktg. 4430.	Problems & Policies of Middlemen			
Mktg. 4440.	Quantitative Methods in Marketing			
Mktg. 4445.	Introduction to Marketing Research			
Mktg. 4450.	Marketing Seminar			
Mktg. 4460.	Man and Exchange			
Mktg. 4470.	International Marketing			
Mktg. 4490.	Practicum in Small Business Management			
Total.....				16

Production and Operations Management
(Management Sciences Department)

Mgmt. 3620.	Introduction to Production Operations.....	4		
Mgmt. 3640.	Production Systems	4		
Acctg. 4271.	Management of Information Systems	}	Choice of one	4
Mgmt. 3645.	Logistics Management			
Mgmt. 4600.	Technological Innovation and Research Management			
Any 3000 or 4000 level Mgmt. Course		}	Choice of one	4
Mktg. 4490.	Practicum in Small Business Management			
Total.....				16

Real Estate Management
(Management Services Department)

Mgmt. 2400.	Fundamentals of Real Estate (See Note)	4		
Econ. 3500.	Regional and Urban Economics: Survey	}	Choice of three	12
Mgmt. 4400.	Real Estate Investment Analysis and Advanced Appraisal			
Mgmt. 4410.	Financing Real Estate Operations			
Mgmt. 4470.	Seminar in Advanced Topics in Real Estate			
Total.....				16

Note: Mgmt. 2400 will be waived for a student who has completed the equivalent of 8 semester or 12 quarter units of Real Estate courses in a community college, in which case the student will be required to complete all *four* of the remaining courses in the option as listed above.

Illustrative Programs, Business Administration

Note: These illustrative programs assure that prerequisite courses are taken in proper sequence. If deviations from this program are made, see individual course descriptions to assure that prerequisites are met.

	First Quarter	Second Quarter	Third Quarter
Freshman Year			
Math. 1802*	4	Math. 1803*	4
Encl. 1001*	3	Code Requirement	4
Code Requirement**	4	General Education electives.....	8
	11		16
			15
Sophomore Year			
Acctg. 2251	4	Acctg. 2252.....	4
Stat. 2010*	5	Econ. 2301*	4
Acctg. 2701.....	4	Psych. 2000*	5
Free elective.....	3	Free elective.....	3
	16		16
			16
Accounting Option			
Junior Year			
Acctg. 3200.....	4	Acctg. 3211	4
Econ. 3551	4	Econ. 3552	4
Mgmt. 3600	4	Mgmt. 3614	4
Mgmt. 3100	5	Mktg. 3401	4
	17		16
			16
Senior Year			
Acctg. elective	4	Mgmt. 4500	4
Mgmt. 3680	4	Acct. 4250+	4
Acctg. 3220+	4	Upper division General Education electives.....	8
Upper division General Education elective	4		16
	16		16
			16

* Required general education course.
** Course may be applied to G.E. Electives requirement.
† Recommended elective courses in the accounting major.

Options in Industrial Relations
and Personnel Administration, Production and Operations
Management, and Real Estate Management

<i>Junior Year</i>		
Acctg. 3200..... 4	Econ. 3552..... 4	Econ. 3005..... 4
Econ. 3551..... 4	Mgmt. 3614..... 4	Mgmt. 3680..... 4
Mgmt. 3100..... 5	Mktg. 3401..... 4	Mgmt. 3300..... 4
Mgmt. 3600..... 4	Option course..... 4	Option course..... 4
17	16	16

<i>Senior Year</i>		
Mgmt. 4500..... 4	Mgmt. 4670..... 4	Mgmt. 4650..... 4
Mktg. 4495..... 4	Option course..... 4	Option course..... 4
Upper division	Upper division	Upper division
General Education	General Education	General Education
electives..... 8	elective..... 4	electives..... 4
16	4	3
	Free elective..... 4	Free elective†..... 3
	16	15

Options in Finance and General Business

<i>Junior Year</i>		
Acctg. 3200..... 4	Econ. 3552..... 4	Econ. 3005..... 4
Econ. 3551..... 4	Mgmt. 3614..... 4	Mgmt. 3680..... 4
Mgmt. 3100..... 5	Mktg. 3401..... 4	Option Courses..... 8
Mgmt. 3600..... 4	Mgmt. 3300..... 4	
17	16	16

<i>Senior Year</i>		
Mgmt. 4500..... 4	Mgmt. 4670..... 4	Mgmt. 4650..... 4
Option Course..... 4	Option Course..... 4	Upper Division
Upper Division	Mktg. 4495..... 4	General Education
General Education	Upper Division	Elective..... 4
Electives..... 8	General Education	Free Electives‡..... 7
16	4	15
	16	

† If a student already has the 186 units required for graduation, these courses may be used to begin a graduate program (see page 95 of this catalog).

Information Systems Management Option

<i>Junior Year</i>		
Acctg. 3200..... 4	Acctg. 3230..... 4	Acctg. 3270..... 4
Econ. 3551..... 4	Econ. 3552..... 4	Acctg. 4270..... 4
Mgmt. 3600..... 4	Mgmt. 3614..... 4	Econ. 3005..... 4
Mgmt. 3100..... 5	Mktg. 3401..... 4	Mgmt. 3300..... 4
17	16	16

<i>Senior Year</i>		
Free Elective..... 4	Mgmt. 4500..... 4	Option Elective..... 4
Mgmt. 3680..... 4	Option Elective..... 4	Mgmt. 4650..... 4
Upper Division	Mktg. 4495..... 4	Upper Division
General Education	Upper Division	General Education
Electives..... 8	General Education	Elective..... 4
16	4	3
	Elective..... 4	Free Elective..... 3
	16	15

Marketing Management Option

<i>Junior Year</i>		
Acctg. 3200..... 4	Econ. 3552..... 4	Econ. 3005..... 4
Econ. 3551..... 4	Mgmt. 3614..... 4	Mgmt. 3100..... 5
Mgmt. 3600..... 4	Option Course..... 4	Mgmt. 3680..... 4
Mktg. 3401..... 4	Upper division	Option course..... 4
16	General Education	
	elective..... 4	
	16	17

<i>Senior Year</i>		
Mgmt. 3300..... 4	Mgmt. 4500..... 4	Mgmt. 4650..... 4
Mgmt. 4670..... 4	Option course..... 4	Mktg. elective..... 4
Mktg. 4495..... 4	Upper division	Upper division
Option course..... 4	General Education	General Education
16	electives..... 8	elective..... 4
	16	4
		Free elective ‡..... 4
		16

† If a student already has the 186 units required for graduation, three courses may be used to begin a graduate program (see page 95 of the catalog).

Minor in Business Administration

Complete the following requirements for the minor:

Lower-Division Requirements

Acct. 2251. Principles of Accounting I	4
Acct. 2252. Principles of Accounting II	4
Acct. 2701. Legal Environment of Business	4
Econ. 2301. Principles of Economics I	4
Econ. 2302. Principles of Economics II	4

Total Lower-Division Requirements 20

Upper Division Requirements

Mgmt. 3600. Theories of Management	4
plus any four courses in upper division business administration core, providing specific course prerequisites have been completed	16

Total Upper-Division Requirements 20

Total Requirements for the Minor 40

Secondary Level Teaching Program

Students interested in secondary teaching should recognize that the School no longer offers 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.

Junior College Teaching Program

The requirements for a junior college teaching certificate may be met concurrently with the satisfaction of the requirements for the Master of Business Administration degree.

Master's Degrees in Business Administration

GENERAL INFORMATION

California State University, Hayward offers the Master of Business Administration with options in Accounting, Finance, Management Sciences, Marketing Management, and Taxation. The School also offers the Master of Science in Business Administration with an option in Quantitative Business Methods. A Community College teaching certificate may be earned concurrently with one of the master degree programs.

All graduate programs in the School are administered through the Student Service Center of the School of Business and Economics.

REQUIREMENTS FOR THE M.B.A. AND M.S. DEGREES

The programs are open to students holding a baccalaureate degree from an accredited college or university with an appropriate grade point average who have attained an acceptable score on the Graduate Management Admission Test (GMAT).

Classification in the Program

There are three levels of advancement for students within the M.B.A. and M.S. programs: *Conditionally classified* standing, *Classified* standing and *Advancement to Candidacy*. *Note:* If a student is in post-baccalaureate status but is not in a graduate degree program he or she is an *unclassified post-baccalaureate student* (formerly called a "non-objective" student). Admission to the University as an *unclassified post-baccalaureate student* in no way implies acceptance to a graduate degree program.

1. *Conditionally classified standing.* A student who has been admitted to a graduate degree program but who has not satisfied all prerequisite coursework or other requirements is a *conditionally classified* graduate student. A student may be admitted to a graduate degree program as a conditionally classified graduate student upon:

- (a) submission of an application with required supporting documents to the Admissions Office of the University;
- (b) acceptance by the Department based on past academic performance, GMAT score and other relevant criteria;
- (c) completion of other appropriate requirements as specified in Graduate Degrees and Regulations, page 97.

2. *Classified standing.* A student who has been admitted to a graduate degree program by meeting the requirements established in item 1 above, and who has fulfilled all prerequisite coursework and other requirements, is a *classified* graduate student. As a practical matter, a student entering the program with a strong background in his or her new field of study will begin as a *classified* graduate student. Students entering the program from a different discipline will become classified when they complete their prerequisite coursework and have been recommended for such standing by the Department.

3. *Advancement to candidacy.* To be advanced to candidacy a student must:
 - (a) be a *classified* graduate student in good standing;
 - (b) have completed 12 quarter units of 6000-level courses;
 - (c) have completed such other requirements as may have been prescribed by the Department;
 - (d) have been recommended for advancement to Candidacy by the Department.

Requirements for Graduation

To be eligible for the M.B.A. or M.S. degree, a student must:

- (a) have been advanced to Candidacy;
- (b) have completed 45 quarter units of graduate work of which:
 - (1) 32 quarter units must have been in residence as a classified or conditionally classified graduate student;
 - (2) all must have been earned within seven years immediately preceding the completion of the requirements for the degree;
 - (3) not fewer than 36 units for the M.B.A. and 24 units for the M.S./Quantitative Business Methods program must have been in courses in the 6000 series;
 - (4) not more than 5 units may have been for thesis and/or a project;
- (c) have obtained a 3.0 grade point average in:
 - (1) all post-baccalaureate units undertaken;
 - (2) all post-baccalaureate units undertaken at Cal State, Hayward;
 - (3) all 45 quarter units offered as satisfying the requirements of this degree;
- (d) have completed a satisfactory program of study, including one of the following options, as determined by the Department, the student's adviser, and the Dean of Graduate Studies.

MASTER OF BUSINESS ADMINISTRATION

Prerequisite Coursework

In order to be considered for classified standing in the Master of Business Administration program, the student must satisfy the following prerequisite courses or their equivalent. Students who have not satisfied the prerequisites may be admitted to the program as conditionally classified graduate students.

All Options	Units
*Acctg. 5201. Graduate Introduction to Financial Accounting	4
**Acctg. 5202. Graduate Introduction to Managerial Accounting (for options other than Accounting) or Acctg. 5230. Managerial Cost Accounting (for Accounting Option majors)	4
Acctg. 2270. Introduction to Programming and Business Computer Systems	4
***Econ. 5005. Graduate Introduction to Macro-Economic Theory	4
****Econ. 5550. Graduate Introduction to Managerial Economics	6

* Not required if Acctg. 2251, 2252 previously completed.
 ** Replaces Acctg. 3200 for graduate students.
 *** Not required if Econ. 3005 previously completed.
 **** Not required if Econ. 3551, 3552 previously completed.

Mgmt. 3300. Financial Management	4
Mgmt. 4500. Business, Government and Society	4
†Mgmt. 5100. Graduate Introduction to Quantitative Business Methods (5 units) or Mgmt. 5694. Seminar in Deterministic Techniques of Quantitative Business Methods (4 units)	4-5
‡Mgmt. 5600. Graduate Introduction to Organization and Management	4
§Mktg. 5405. Graduate Introduction to Marketing Management	4
Math. 1802, 1803. Mathematics for the Business and Social Sciences II, III ..	8
Stat. 2010. Elements of Statistics for Business and Economics	5
Total prerequisite units	0-56

Accounting Option

In addition to the above, students in the MBA/Accounting program must take Acctg. 5211, 5212, and 5230 instead of the corresponding undergraduate courses.

Marketing Option

In addition to the common prerequisite courses, students in the MBA/Marketing option must take Marketing 5401, Basic Business Data Analysis (2 units). This requirement will be waived upon successful completion of an examination administered by the Department of Marketing.

Taxation Option

In addition to the common prerequisite courses, students in the MBA/Taxation option must take Acctg. 3220, Federal Income Tax Accounting.

Graduate Core Courses

The following graduate courses are required for all options in the Master of Business Administration program:

Mgmt. 6010. Business and Economic Forecasting	4
Mgmt. 6100. Quantitative Business Methods (4 units) or Mgmt. 5695. Seminar in Probabilistic Techniques of Quantitative Business Methods (4 units)	4
Mgmt. 6650. Seminar in Business Policy	4
Total units in graduate core	12

MBA Option Requirements

In addition to the three graduate core courses, students will satisfy the requirements of one of the options as outlined below.

Accounting Option:

1. Required Accounting Courses	
Acctg. 6211, 6212. Seminar in Accounting Theory I, II	8
Acctg. 6230. Seminar in Administrative Accounting	4
* Acctg. 6260. Accounting Research Methods Seminar	4
* Acctg. 6905. Individual Research	1
	<hr/> 17
2. Accounting Electives:	
Two courses chosen from any 6000-level course in the Accounting Department or any adviser-approved 4000-level Accounting course	8

† Not required if Mgmt. 3100 previously completed.
 ‡ Not required if Mgmt. 3600 and 3614 previously completed.
 § Not required if Mktg. 3401 previously completed.
 * Acctg. 6260 and Acctg. 6905 should be taken concurrently.

3. Non-Accounting Electives:

The student must fulfill the remainder of his or her coursework requirement with any two 6000-level courses in the School of Business and Economics outside the Department of Accounting or with any other courses approved by the Department

8	
4. Candidates will be required to pass a comprehensive written examination as a final requirement for the degree of Master of Business Administration with an option in Accounting.	
Total units in option	33
Total graduate units	45

Finance Option:

1. Required Finance Courses:		
Mgmt. 6300. Seminar in Financial Management	4	
Mgmt. 6550. Research Methods and Communication	4	
	<hr/> 8	
2. Finance Electives:		
The student must elect three option courses from the following:		
Mgmt. 6310. Seminar in Security Valuation	} Choice of three	12
Mgmt. 6315. Portfolio Analysis and Evaluation		
Mgmt. 6320. Studies in Capital Markets		
Mgmt. 6325. The Financial Management of Banking Institutions		

The student must take one additional option course from the above list or from the following list of undergraduate courses:

Mgmt. 3320. Capital Markets and Financial Institutions	} Choice of one	4
Mgmt. 4310. Investment Analysis		
Mgmt. 4370. Seminar in Financial Theory		
Econ. 3310. Money and Banking		
Econ. 4105. International Finance		
		<hr/> 16

3. Non-Finance Electives:

The student must fulfill the remainder of the coursework requirement with any two 6000-level courses in the School of Business and Economics outside of the area of Finance or with any other course approved by the Department

8	
4. In addition, the student must either complete a thesis for which up to five units of graduate credit is allowed (Mgmt. 6910) or pass a comprehensive written and oral examination covering the Theory of Financial Management and Business Administration	
	(0-5)
Total units in option	33
Total graduate units	45

Management Sciences Option:

1. Required Management Sciences Courses:	
Mgmt. 6300. Seminar in Financial Management	4
Mgmt. 6550. Research Methods and Communications	4
	<hr/> 8
2. Management Sciences Electives:	
Any three 6000-level courses offered by the Department of Management Sciences	12

One additional 6000-level course in the Department of Management Sciences or from the following list of undergraduate courses:

Mgmt. 3320. Capital Markets and Financial Institutions	}	Choice of one	4
Mgmt. 3645. Logistics Management			
Mgmt. 4310. Investment Analysis			
Mgmt. 4370. Seminar in Financial Theory			
Mgmt. 4600. Technological Innovation and Research Management			
Mgmt. 4613. Research Methods Seminar in Personnel Administration			
Mgmt. 4683. Research in Labor Relations			
3. Non-Management Sciences Electives:			
The student must fulfill the remainder of his or her coursework requirement with any two 6000-level courses in the School of Business and Economics outside of his or her field of specialization* or with any other course approved by the Department			
			8
4. In addition, the student must either complete a thesis for which up to five units of graduate credit is allowed (Mgmt. 6910) or pass a comprehensive written and oral examination covering the Theory of Business Administration			
			(0-5)
Total units in option			33
Total graduate units			45

Marketing Management Option:

1. Required Marketing Management Courses:			
Mktg. 6401. Marketing Research I			5
Mktg. 6410. Seminar in Consumer Behavioral Theory			4
Mktg. 6420. Seminar in Marketing Policy			4
			13
2. Marketing Management Electives:			
One of the following:			
Mktg. 6402. Marketing Research II	}	Choice of one	4-5
Mktg. 6430. Seminar in Marketing Logistics			
Mktg. 6450. Seminar in Selected Marketing Topics			
Mktg. 6900. Independent Study			
Mktg. 6910. Thesis			4-5
Any two additional 6000-level courses—marketing or non-marketing—in the School of Business and Economics or any adviser-approved undergraduate Marketing courses			
			8
3. Non-Marketing Management Electives:			
The student must fulfill the remainder of his or her coursework requirement with any two 6000-level courses in the School of Business and Economics outside of the Department of Marketing or with any other course approved by the Department			
			8
4. In addition, the students will be required to pass a comprehensive examination toward the end of their last quarter in the program. As long as resources permit, this will be an oral examination.			
Total units in option			33
Total graduate units			45

* A "field of specialization" is defined as 12 or more units of graduate coursework taken in an identifiable professional area usually within the Department of Management Sciences.

Taxation Option:

1. Required Taxation Courses:			
Acctg. 4220. Advanced Tax Accounting			4
† Acctg. 6223. Researching Federal Tax Issues			4
† Acctg. 6905. Individual Research			1
Acctg. 6225. Income Tax Procedure			4
Econ. 6370. Seminar in Public Finance			4
			17
2. Taxation Electives:			
Two courses chosen from the following:			
Acctg. 6220. Seminar in Income Taxation	}	Choice of two	8
** Acctg. 6226. Seminar in Advanced Topics in Taxation			
Accts. 6227. Computer Applications of Tax Law			
3. Non-Taxation Electives:			
The student must fulfill the remainder of his or her coursework requirement with any two 6000-level courses in the School of Business and Economics outside of the area of Taxation or a closely related area			
			8
4. Candidates will be required to pass a comprehensive written examination as a final requirement for the degree of Master of Business Administration with an option in Taxation.			
Total units in option			33
Total graduate units			45

MASTER OF SCIENCE IN BUSINESS ADMINISTRATION (QUANTITATIVE BUSINESS METHODS OPTION)

This program is housed in the Department of Management Sciences

In order to be considered for classified graduate standing in the Master of Science program in Business Administration with an option in Quantitative Business Methods, the student must satisfy the following prerequisite courses or their equivalent. Students who have not satisfied the prerequisites may be admitted to the program as conditionally classified graduate students.

	Units
Acctg. 5201. Graduate Introduction to Financial Accounting	4
Math. 1300, 1304, 1305, 2304. Elementary Functions and Coordinate Geometry; Calculus I, II, III	16
Math. 1700. Elementary Computer Programming	4
Econ. 5550. Graduate Introduction to Managerial Economics	6
Mgmt. 5600. Graduate Introduction to Organization and Management	4
Stat. 3401. Introduction to Probability Theory	4
Stat. 3502. Statistical Inference I	4
Total prerequisite units	42

Graduate Program Requirements

The following courses are required for the Quantitative Business Methods option:

Mgmt. 5694. Seminar in Deterministic Techniques of Quantitative Business Methods	4
Mgmt. 5695. Seminar in Probabilistic Techniques of Quantitative Business Methods	4
Mgmt. 6604. Seminar in Quantitative Business Methods Applications	4
Mgmt. 6619. Seminar in Advanced Techniques of Quantitative Business Methods I	4
Mgmt. 6620. Seminar in Advanced Techniques of Quantitative Business Methods II	4
Mgmt. 6621. Seminar in the Design and Use of Computer Simulation Models	4

In addition, the student must either complete a thesis for which graduate credit is allowed up to five units (Mgmt. 6910) or complete a comprehensive written and oral examination covering Quantitative Business Methods. 0-5

† Acctg. 6223 and Acctg. 6905 should be taken concurrently.

** Acctg. 6226 may be repeated for credit.

The student may select his or her elective courses from any department in the University. All electives must be approved by the Graduate Faculty Adviser. The following are some suggested electives:

Mgmt. 6010.	Business and Economic Forecasting	
Mgmt. 6603.	Seminar in Management Decision Making Under Uncertainty	
Mgmt. 6625.	Seminar in Computer Systems Applications	
Mgmt. 6626.	Seminar in Management Sciences/Operations Research	
Math. 3860.	Techniques of Linear Optimization	
Math. 3870.	Techniques of Non-Linear Optimization	
Stat. 4410.	Introduction to Stochastic Processes	
Stat. 6410.	Queuing Theory	
Acctg. 6270.	Seminar in Information Systems	
Econ. 4400.	Introduction to Econometrics	
Mktg. 4440.	Quantitative Methods in Marketing	
Total elective units	16-21
Total graduate units	45

COURSES

ACCOUNTING

UNDERGRADUATE COURSES

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 Acctg. 2251. (F,W,Sp)

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

An introduction to accounting analysis and practice. Courses are sequential. Prerequisite: sophomore standing. (A)

2270. Introduction to Programming and Business Computer Systems (4)

Introduction to the uses of computers in business. Basic concepts, components and operation of computer systems. Flow charting, programming logic and source language programming. The interrelationship of people, machines, and business computer systems. Prerequisites: Acctg. 2252, or 2210, or consent of instructor. (A)

2701. Legal Environment of Business (4)

Legal setting in which business operates, with emphasis upon legal reasoning, processes of the law, contracts, agency, partnerships, and corporations. (A)

2702. The Uniform Commercial Code—California (4)

A continuation of the Legal Environment of Business, treating the Uniform Commercial Code in California: Personal Property—Sales, Negotiable Instruments, Secured Transactions. Prerequisite: Acctg. 2701. (W)

3200. Managerial Accounting (4)

Applied course with emphasis on the use of accounting information by management for decision-making purposes in the multi-goal firm. Prerequisite: Acctg. 2252, 2270, Math. 1801 or equivalent. Not open to students who have had Acctg. 3211-12 or 3230 or equivalent. (A)

3211, 3212. Intermediate Accounting I, II (4 each)

Accounting theory, practice, and problems. Balance sheets, income and other financial statements, working papers, valuation of assets, reserves, correction of statements, and sources and applications of funds. Courses are sequential and require a grade not lower than C to continue. Prerequisite: Acctg. 3200, with a grade not lower than C. (A)

3220. Federal Income Tax Accounting (4)

Fundamentals of individual income taxation. Emphasis on research using Internal Revenue Code, income tax regulations, and other reference materials used in researching tax issues. Prerequisite: Acctg. 2252. (A)

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: Acctg. 3200; Math 1803. (A)

3270. Business Computer Programming Applications (4)

Advanced business programming applications using COBOL. Report preparation and validation techniques. Mass-storage file management. Design, creation, and maintenance of sequential and random-accessed files. Term project involving approved topic of student interest. Prerequisites: Acctg. 2252 and 2270. (Y)

4220. Advanced Federal Income Tax Accounting (4)

Federal income tax law involving corporations, partnerships, estates and trusts. Advanced research techniques with emphasis on analysis of tax laws with a view toward tax planning. Prerequisites: Acct. 3220. (Y)

4230. Advanced Cost Accounting (4)

Advanced cost accounting problems and theory in the multi-goal organization. Contemporary developments in the controllership function and in accounting techniques available to the controller. Selected topics in budgeting, control, and cost determination. Analysis of special problems. Prerequisite: Acctg. 3230. (F,Sp)

4240. Advanced Financial Accounting (4)

Advanced accounting problems and theory. Topics include parent and subsidiary accounting, pooling of interests, partnerships, foreign exchange, and other current issues. Prerequisite: Acct. 3212. (A)

4250. Auditing (4)

Principles, techniques and procedures in auditing. Prerequisite: Acctg. 3212. (A)

4270. Accounting Information Systems Design (4)

Design of Accounting Information Systems, and their interfaces with the management decision making process, the audit function and external reporting requirements. Computer-oriented and conventional accounting systems will be studied. Prerequisites: Acctg. 2270 and 3230. (Y)

4271. Management of Information Systems (4)

Planning, implementation, administration and control of management information systems. Concepts of systems theory, information theory, communications theory and organization theory will be applied to the process of fulfilling information requirements of all functional areas of management. Prerequisites: Acctg. 3200; Mgmt. 3100 and 3614. (Y)

4272. Advanced Topics in Business Computer Systems (4)

Advanced study of selected technical aspects of business computer systems, including hardware selection, telecommunications systems, data base management, and security and control of EDP installations. Prerequisite: Acctg. 4270. (Y)

4273. Quantitative Analysis in Information Systems (4)

Applications of quantitative analysis to information systems problems, including scheduling, network, optimization, search and simulation techniques. Computer programming solution methods will be used. Prerequisites: Mgmt. 3100; Acctg. 3200. (Y)

4280. Governmental Accounting (4)

Accounting for state and local governmental and institutional units. Extensive study of budgeting and fund accounting. Review of disclosure requirements and recent guidelines established by federal, state and local governments. Prerequisite: consent of instructor. (Y)

4900. Independent Study (1-4)

4915. Internship in Accounting (1-4)

Supervised work experience with a company, CPA firm, non-profit organization, or government agency in a department-approved program. Prerequisites: Vary according to agency or firm. (Y)

4920-4999. Directed Group Study (1-4)

POST BACCALAUREATE COURSES

5201. Graduate Introduction to Financial Accounting (4)

Concepts, principles and procedures of accounting. Preparation and interpretation of financial statements. Uses of economic information in the decision process. POST BACCALAUREATE STUDENTS ONLY. (A)

5202. Graduate Introduction to Managerial Accounting (4)

Applied course with emphasis on the use of accounting information by management for decision-making purposes in the multi-goal firm. Prerequisite: Acct. 5201. (Y)

5211, 5212. Intermediate Financial Accounting I, II (4 each)

Intensive study of basic concepts, principles and procedures of financial accounting theory. Balance sheet, income statement, funds flow, corporation equity, compound interest concepts and disclosure in financial statements are included. Courses are sequential and require a grade not lower than C to continue. POST BACCALAUREATE STUDENTS ONLY. Prerequisites: Acct. 5201 or Acct. 2252 or equivalent with a grade not lower than C. (5211: F, W; 5212: W, Sp)

5230. Managerial Cost Accounting (4)

Theory and procedures of costing for manufacturing firms. Job order and standard cost systems; managerial uses of cost data; capital budgeting. POST BACCALAUREATE STUDENTS ONLY. Prerequisites: Acct. 5201 or Acct. 2252 or equivalent with a grade not lower than C. (W, Su)

GRADUATE COURSES

6211, 6212. Seminar in Accounting Theory I, II (4, 4)

Critical study of the concepts and principles characteristic of accounting; an examination of the literature leading to the formulation of accounting principles and various unsettled issues involved in the calculation and disclosure of enterprise periodic income. Courses are sequential. Prerequisites: Acctg. 3212, 3230, or equivalents. (6211: F, Sp; 6212: W, Su)

6220. Seminar in Federal Income Tax Accounting (4)

An analysis of complex corporate, partnership, and fiduciary income tax issues with emphasis on individual and team research. Topics of current importance are stressed. Prerequisite: Acctg. 4220. (Y)

6223. Researching Federal Tax Issues (4)

Methods of researching federal tax issues with emphasis placed on actual case studies. Students are required to write a comprehensive paper dealing with a federal tax issue, and enroll concurrently in Acctg. 6905. Prerequisite: Acctg. 3220. (Y)

6225. Income Tax Procedure (4)

Legal and practical aspects of Federal Tax procedure, with emphasis on audit, collection, and criminal problems from return preparation through litigation. Prerequisite: Acctg. 3220. (Y)

6226. Seminar in Advanced Topics in Taxation (4)

Selected topics dealing with tax problems and government regulations concerning corporations, estates, and trusts, partnerships, capital gains and losses, etc. May be repeated for credit upon consent of instructor. Prerequisite: Consent of Instructor. (Y)

6227. Computer Applications of Tax Law (4)

Study of the use of computer applications and simulation techniques in the analysis of various tax provisions and accounting procedures with a view toward tax planning and control. Prerequisite: Acctg. 2270, Acctg. 3220. (Y)

6230. Seminar in Administrative Accounting (4)

An analysis and discussion of selected advanced topics from the following: management control systems, preparation and administration of budgets, quantitative analysis of special cost and managerial problems, cost problems in not-for-profit organizations, planning-programming-budgeting. Prerequisites: Acctg. 3230 or equivalent. (W, Su)

6250. Seminar in Advanced Auditing (4)

Critical analysis of the theory of audit evidence; interrelation of audit standards, principles, ethics, procedures and techniques; trends and developments in the auditing profession. Prerequisites: Acctg. 3212, 4250 or equivalents. (F)

6260. Accounting Research Methods Seminar (4)

Accounting research methods including the role and nature of research, data sources, problem formulation, research design, data collection, and actual writing of accounting research paper. Prerequisite: Acctg. 3212. Acctg. 6905, Individual Research (1-unit research paper) should be taken concurrently. (F, Sp)

6270. Seminar in Information Systems (4)

Selected concepts and application of systems theory, communications theory, information theory, data and model bases, computer technology, economic and technological planning and implementation of information systems. (W, Su)

6900. Independent Study (1-4)**6905. Individual Research (1)**

Individual research to be performed and research paper written. Only 1 unit of credit may be included in the 45 graduate credit requirement. (A)

6920-6999. Directed Group Study (1-4)

MANAGEMENT SCIENCES

UNDERGRADUATE COURSES

2400. Fundamentals of Real Estate (4)

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

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: Stat. 2010, Math. 1803 or 1305, Acctg. 2270. Restricted to undergraduates. Four hrs. lect., 2 hrs. act. (A)

3300. Financial Management (4)

Theory and practices that underlie the financial manager's decision-making process. Sources, costs, and application of enterprise capital; capital structure; valuation of the firm; investment analysis and dividend policy. Prerequisites: Acctg. 3200, Econ. 2301-2, Math. 1803. (A)

3320. Capital Markets and Financial Institutions (4)

Examination and analysis of the major U.S. capital markets, role of financial intermediaries, theory underlying capital market operations, and selected case studies. Prerequisite: Mgmt. 3300. (W)

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. Personnel Administration (4)

Principles and methods of personnel work; employee recruitment, selection, training, promotion, transfer, and wage and salary administration. Prerequisite: Mgmt. 3600. (W, Su)

3614. Organizational Behavior (4)

Current theory and research of individual and small group behavior in the organization. Prerequisites: Psych. 2000, Mgmt. 3600. Four hrs. lect./disc. (A)

3616. Personnel 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: Psych. 2000, Stat. 2010, Mgmt. 3600 (F, Sp)

3620. Introduction to Production Operations (4)

Analysis of production operations in manufacturing and service enterprises. Traditional approach to such areas as production planning, inventory control, and quality control is combined with the application of quantitative tools including game theory, PERT, statistical quality control and linear programming. Prerequisite: Mgmt. 3100. (F, W)

3640. Production Systems (4)

A study in depth into selected production control areas including production efficiency, forecasting, inventory control, production planning and control, and the use of computers. Prerequisite: Mgmt. 3620. (Sp)

3645. Logistics Management (4)

Analysis of physical distribution. Methods of logistics analysis and planning. Prerequisites: Mgmt. 3600 and 3620. (Sp)

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)

4310. Investment Analysis (4)

Investment analysis logic and its application to business investment problems. Research on risk of investment, nature of securities and securities markets. Prerequisite: Mgmt. 3300. (F, Sp)

4320. Problems in Corporate Finance (4)

Utilization of financial data in solving specific problems in corporate financial decision-making and policy formulation. Study of current trends in financial management. Prerequisite: Mgmt. 3300. (W, Su)

4370. Seminar in Financial Theory (4)

Research and analysis of varying viewpoints concerning financial management; examination of traditional and contemporary theoretical explanations of finance. Prerequisites: Mgmt. 4320, and Senior or Graduate Standing. (F, Sp)

4400. Real Estate Investment Analysis and Advanced Appraisal (4)

Applications of investment analysis and appraisal theory to real estate management. Prerequisites: Mgmt. 2400, 3300. (W)

4410. Financing Real Estate Operations (4)

Study of equity, mortgage, lease, sale and lease-back, and innovative methods of financing, including related tax effects. Prerequisite: Mgmt. 4400. (Sp)

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, Mgmt. 4400, 4410. (Y)

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, 3552. (A)

4600. Technological Innovation and Research Management (4)

Analyses of the process of technological innovation and its management. Students will develop plans and evaluative techniques for an industrial research and engineering development program. Prerequisites: Mgmt. 3300, 3600. (F, Not offered in 1978-79)

4613. Research Methods Seminar in Personnel Administration (4)

Seminar on personnel or organizational behavior; research methodology. Students will design and complete individual or group projects. Prerequisites: Mgmt. 3610, 3614, 3616. (Sp)

4650. Seminar in Managerial Planning and Control (4)

Development of complex capital expenditure, marketing, and production plans and accompanying budgets and forecasts and their integration into a corporate plan and control system. Prerequisites: Mgmt. 3100, 3300, 3600, 4500; Mktg. 3401. Restricted to seniors. (A)

4670. Multinational Business (4)

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

4675. International Industrial Relations (4)

Seminar on international and comparative labor-management relations. Prerequisite: Mgmt. 3680 or consent of instructor. (W)

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 term project. Prerequisites: Mgmt. 3600, 3680. (F)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)**

POST-BACCALAUREATE COURSES

5100. Graduate Introduction to Quantitative Methods in Business (5)

A graduate level survey of linear programming, transportation models, CPM/PERT, deterministic inventory models, and decision analysis. Emphasis on problem formulation and applications. Prerequisites: Acct. 2270, Math. 1803, Stat. 2010. Restricted to post-baccalaureate students. Four hrs. lect., 2 hrs. act. (F, Sp)

5600. Graduate Introduction to Organization and Management (4)

Graduate level survey of principles of management and organizational behavior. Restricted to post-baccalaureate students. (W, Su)

5694. 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; Math 1700 or Acct. 2270; or consent of instructor. (F)

5695. 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. 5694, Stat. 3401. (W)

GRADUATE COURSES

6010. Business and Economic Forecasting (4)

A study of business trends and fluctuations, of major economic indicators, and of short- and long-run forecasting techniques for the economy, an industry, or a firm. Prerequisites: Econ. 3005, Econ. 5550, Mgmt. 5100 or 5694 or equivalent, Mgmt. 5600 or equivalent. (A)

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. 5100 or 5694 or equivalent. (A)

6300. Seminar in Financial Management (4)

Research, analysis, and reporting of contemporary problems that affect the decision-making processes of a financial manager. Analysis of business cases will supplement individual research projects. Prerequisites: Mgmt. 3300, Mgmt. 5100 or 5694 or equivalent. (A)

6310. Seminar in Security Valuation (4)

Concepts of security valuation for purposes of investment and exchange. Portfolio management and acquisition analysis and valuation. Prerequisite: Mgmt. 6300. (F)

6315. Portfolio Analysis and Evaluation (4)

Theoretical and empirical work related to results obtained when combining various investment projects or financial securities over a specified holding period. Prerequisites: Mgmt. 4310, Mgmt. 5100 or 5694 or equivalent. (W)

6320. Studies in Capital Markets (4)

Studies of selected capital markets and financial institutions. Student will prepare a major research paper and will review and evaluate existing studies. Prerequisites: Econ. 3005, Mgmt. 3300; Mgmt. 3320 recommended. (Sp)

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. Prerequisite: Consent of instructor. (F)

6500. Seminar on Business and Society (4)

The analysis of the relationship of business to society, to government, and to emerging social concepts and roles. Prerequisites: Econ. 3005, Econ. 5550, Mgmt. 4500, Mgmt. 5600 or equivalent. (W,Su)

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 MBA/Finance or Management program. Prerequisites: All MBA program prerequisites. (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. 5695; or 6100 and consent of instructor. (W)

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. Prerequisite: Mgmt. 5695. (F)

6610. Seminar in Personnel Administration Research (4)

An examination of research in such areas as recruitment and hiring, selection and placement, merit evaluation, and wage and salary administration. Prerequisite: Mgmt. 6550. (Sp)

6619. Seminar in Advanced Techniques of Quantitative Business Methods I (4)

Selected topics in mathematical programming and network models. Prerequisites: Mgmt. 5694, Stat. 3401. (W)

6620. Seminar in Advanced Techniques of Quantitative Business Methods II (4)

Seminar on inventory and production models, demand forecasting and dynamic programming. Emphasis on dynamic probabilistic models. Prerequisite: Mgmt. 5695. (Sp)

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. 5695, or 6100 and consent of instructor. (Sp)

6625. Seminar in Computer Systems Applications (4)

Selected topics in the organization, installation, and use of computer systems. Analysis of case studies in which computers have been applied in business and government. Prerequisites: Acct. 2270 or Math. 1700, Mgmt. 5694, or 6100 and consent of instructor. (Sp)

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. Prerequisite: consent of instructor. (F)

6630. Seminar in Organization Theory (4)

Analysis and discussion of classical and modern organization theory, interrelationships of organizational structure and human behavior in organizations, reports on current research. Prerequisite: Mgmt. 5600 or equivalent. (F,Sp)

6635. Managerial Psychology (4)

Seminar on behavioral theories and current research. Emphasis will be on the determinants of managerial effectiveness and the psychological techniques available to increase that effectiveness. Prerequisite: Mgmt. 5600. (W)

6650. Seminar in Business Policy (4)

Financial strategy; managerial planning and control systems. A treatment of the policy formulation process. Case studies with assigned problems. Prerequisites: All MBA program prerequisites and the completion of at least 32 of the 45 units in the MBA program. (A)

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. Prerequisite: Consent of instructor. (F)

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. 5600 or equivalent. (W)

6900. Independent Study (1-4)**6910. Thesis (1-5)**

Individual research project and an accepted thesis. No more than 5 units of credit may be included in the 45 graduate credit requirement. Prerequisite: classified standing. (A)

6920-6999. Directed Group Study (1-4)**MARKETING****UNDERGRADUATE COURSES****3401. Introduction to Marketing Management (4)**

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

3450. Practitioners' Views of Business Issues and Procedures (1)

Discussion of business and/or marketing topics by business persons. Informal presentations by several speakers with substantial opportunity for questions. May be repeated twice for credit. Two hrs. act. Must be taken CR/NC.

4410. Advertising (4)

Marketing and economic functions of advertising with emphasis on psychological and statistical aspects; includes media, copy, layout, and research. Prerequisite or concurrent: Mktg. 3401. (F)

4420. Sales Analysis and Sales Management (4)

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

190 / Business Administration**4430. Problems and Policies of Middlemen (4)**

Management problems and approaches in wholesale-level and retail-level units. Prerequisite or concurrent: Mktg. 3401. (F)

4440. Quantitative Methods in Marketing (4)

Application of statistical analysis and selected quantitative models to marketing problems. Prerequisite: Mgmt. 3100; prerequisite or concurrent: Mktg. 3401. (Y)

4445. Introduction to Marketing Research (4)

Introduction to basic research procedures, project design, and interpretation and application of results as applied to marketing decisions. Prerequisites: Mktg. 3401 and Stat. 2010. (Y)

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.

4460. Man and Exchange (4)

Societal view of distribution; economic base for exchange; barriers to exchange; exchange in different societies; criticisms, defenses, regulation of American marketing system including consumerism movement. Prerequisite: Upper division standing. Four hrs. lect./disc.

4470. International Marketing (4)

Marketing management problems and techniques in international business. Prerequisite: Mgmt. 4670; prerequisite or concurrent: Mktg. 3401. (Sp)

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: Acctg. 3200, Econ. 3551, Mgmt. 3100 and 3300, and Mktg. 3401. (Y)

4495. Administrative Communications Systems (4)

Applications of logical and creative thinking, and oral and written communications in the administrative decision-making process in business organizations. Prerequisite: Senior standing. (A)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)**

POST-BACCALAUREATE COURSES

5401. Basic Business Data Analysis (2)

Rationale of basic statistical procedures with applications to business data analysis. Use of self-study materials and problem sets in a flexible lab format. Prerequisite: Stat. 2010 or equivalent. Credit is not available by challenge exam. The time requirement is equivalent to two 2-hour labs per week. (Y)

5405. Graduate Introduction to Marketing Management (4)

Examination of marketing decision-making principles in dynamic market situations with casework assignments carrying individual and group responsibility for the oral presentation and discussion of strategy recommendations. Prerequisites: Graduate standing with no undergraduate Marketing Management course; prerequisite or concurrent: Econ. 5550 or consent of instructor. (Y)

GRADUATE COURSES

6401. Marketing Research I (5)

Managerial applications of multivariate analysis including multiple regression; survey analysis; introduction to multidimensional scaling and cluster, discriminant and factor analysis;

research methodology and design. Prerequisites: Mktg. 5405 and Mktg. 5401 or an acceptable score on the placement exam covering rationale and applications of basic statistical analysis; prerequisite or concurrent: Mgmt. 6010. (W)

6402. Marketing Research II (4)

The design and use of marketing survey research and marketing experiments. Prerequisite: Mktg. 6401.

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. 5405 or equivalent. (F)

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. 5600 or equivalent and Mktg. 5405 or equivalent; recommended: Mktg. 6401. (Sp)

6430. Seminar in Marketing Logistics (4)

Topics selected from management of physical distribution systems, control of distribution inventories, and selection of warehouse locations; emphasis on logistics management as an integral part of the marketing program, systems planning, location theory, and mathematical models. Prerequisite: Mktg. 5405 or equivalent.

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. 5405 or equivalent; recommended: Mktg. 6401 and Mktg. 6410. (Sp)

6900. Independent Study (1-4)**6910. Thesis (1-5)**

Formal thesis project and report on an approved research topic. No more than five units of credit may be included in the 45 graduate credit requirement. Prerequisites: classified standing and adviser approval. (A)

6920-6999. Directed Group Study (1-4)

CHEMISTRY

(Department of Chemistry, School of Science)

Professor Emeritus: Milka R. Zhivadnovich

Professors: Richard E. Bozak, Leroy Chauffe, John E. DeVries, Milton E. Fuller, Richard S. Monson, Charles T. Perrino, Donald L. Peterson (Chair), P. Victor Peterson, Jr., John C. Shelton, Marion C. Woods

Associate Professors: Kevin D. Cadogan, Edward E. Genser, Richard T. Luibrand

Lecturers: Robert G. Bergstrom, Mark B. Freilich, Dennis K. Mitchell, Larry G. Sheve

Graduate Adviser: Richard T. Luibrand

GENERAL INFORMATION

The Department of Chemistry offers courses of study leading to a B.S. degree, a B.A. degree, and an M.S. degree, as well as a Minor in Chemistry.

The program leading to the B.S. degree is approved by the American Chemical Society and is intended for those students planning to pursue graduate study or obtain positions in the chemical industry in a professional capacity.

The program leading to the B.A. degree is considerably more flexible and is designed to allow students to prepare for a variety of professional activities including chemical sales, chemical patent law, secondary school teaching, and medical or dental training. The Option in Biochemistry is a program that allows students to concentrate on an important subdivision of chemical-biological studies. It is suitable preparation for graduate work in biochemistry as well as other areas of chemistry or related fields.

The Minor is intended for students majoring in other fields who wish to develop their knowledge of chemistry in a coherent manner.

Chemistry Major Leading to a B.S. Degree

(APPROVED BY THE AMERICAN CHEMICAL SOCIETY)

- I. Complete the 76-unit requirement in general education which applies to all majors. Students completing this major may apply 8 units of mathematics courses in satisfaction of the *Basic Subjects* requirement (requirement A.2., p. 86), leaving only the English Composition requirement to be completed in *Basic Subjects*. Students may apply 15 units in satisfaction of the *Natural Sciences* requirement (requirement B.2., p. 87). Foreign Language courses apply to either the *Elective* requirement or the *Upper Division* requirement in general education.
- II. Complete the following requirements:

<i>Lower Division</i>	<i>Units</i>
Chem. 1101, 1102, 1103. General Chemistry	15
Chem 2200. Quantitative Analysis	5
Math. 1300, 1304, 1305, 2304, 2101. Elementary Functions and Coordinate Geometry, Calculus I, II, III, and Elements of Linear Algebra	20
Phys. 1001, 1002, 1003. General Physics	15
Total Lower Division Units	55
<i>Upper Division</i>	
Chem. 3301, 3302, 3303. Organic Chemistry	15
Chem. 3511, 3512, 3513. Physical Chemistry	9
Chem. 3531, 3532, 3533. Physical Chemistry Laboratory	6
Chem. 4161, 4162. Theoretical Inorganic Chemistry	6
Chem. 4240. Instrumental Methods of Analysis	4
Advanced Chemistry Electives	15
Including:	
A. At least one course chosen from the following: 4180, 4310, 4330, 4430, 4810.	
B. At least two courses chosen from the following: 4210, 4311, 4312, 4340, 4411, 4412, 4521, 4522.	
C. Additional courses chosen from the above list of electives or from the following: 3110, 3411, 3412, 4110, 4700, 4900. (No more than six units	

of 4900 and 4810 combined may be applied to the Advanced Chemistry Electives for the B.S. degree). Graduate courses (numbered 6000 or above) may be taken in satisfaction of this requirement if prerequisites are met.	
Total Upper Division Units	55
III. Foreign Language	
The foreign language requirement for the B.S. degree is satisfied by taking one of the following patterns:	
A. FLan. 1201, 1202, 1203. Elementary German (or equivalent), or.....	12
B. FLan. 1204, 1205, 1206. German Reading (or equivalent), or.....	12
C. FLan. 1501, 1502, 1503. Elementary Russian (or equivalent), or.....	12
D. Chem. 4700. Survey of Chemical Literature (3) preceded by either FLan. 1201, 1202 or FLan. 1204, 1205 (or equivalent)	11
IV. Summary of the B.S. Program	
The major	110
Foreign Languages.....	8,12
General Education Requirements (not satisfied by the major program)	43,47
Free electives.....	23
Total Units	188

Chemistry Major Leading to a B.A. Degree

I. Complete the 76-unit requirement in general education which applies to all majors. Students completing this major may apply 9 units of mathematics courses in satisfaction of the <i>Basic Subjects</i> requirement (requirement A.2., p. 86), leaving only the English Composition requirement to be completed in <i>Basic Subjects</i> . Students may apply 12 units in satisfaction of the <i>Natural Sciences</i> requirement (requirement B.2., p. 87).	
II. Complete the following requirements	
<i>Lower Division</i>	<i>Units</i>
Chem. 1101, 1102, 1103. General Chemistry	15
Chem. 2200. Quantitative Analysis	5
Math. 1300, 1304, 1305, 2304. Elementary Functions and Coordinate Geometry, Calculus I, II, III	16
Phys. 2701, 2702, 2703. Introductory Physics	12
Total Lower Division Units	48
<i>Upper Division</i>	
Chem. 3301, 3302, 3303. Organic Chemistry	15
Chem. 3511, 3512, 3513. Physical Chemistry	9
Upper Division Chemistry Electives (chosen with adviser's approval)	12
Total Upper Division Units	36
III. Summary of the B.A. Program	
The major	84
General Education Requirements (not satisfied by the major program)	55
Free electives.....	47
Total Units	186

OPTION IN BIOCHEMISTRY

I. Complete the 76-unit requirement in general education which applies to all majors. Students completing this major may apply 9 units of mathematics courses in satisfaction of the <i>Basic Subjects</i> requirement (requirement A.2., p. 86), leaving only the English Composition requirement to be completed in <i>Basic Subjects</i> . Students may apply 12 units in satisfaction of the <i>Natural Sciences</i> requirement (requirement B.2., p. 87).	
II. Complete the following requirements	
<i>Lower Division</i>	<i>Units</i>
Chem. 1101, 1102, 1103. General Chemistry	15
Chem. 2200. Quantitative Analysis	5
Math. 1300, 1304, 1305, 2304. Elementary Functions and Coordinate Geome-	

try, Calculus I, II, III	16
Phys. 2701, 2702, 2703. Introductory Physics	12
Biol. 1101, 1102, 1103. Foundations of Biological Science	15
Total Lower Division Units	63
<i>Upper Division</i>	
Chem. 3301, 3302, 3303. Organic Chemistry	15
Chem. 3511, 3512, 3513. Physical Chemistry	9
Chem. 4411, 4412. General Biochemistry	8
Chem. 4430. General Biochemistry Laboratory	4
Two courses in Biology chosen from the following: Biol. 3120 (4), 3140 (4), 3150 (4), 3405 (6), 4170 (5), 4180 (4), 4225 (5), 4455 (5), 4501 (5), 4502 (5)	8-11
Total Upper Division Units	44-47
III. Summary of the B.A. in Chemistry, Option in Biochemistry	
The major	107-110
General Education Requirements (not satisfied by the major program)	55
Free electives.....	21-24
Total Units	186

Minor in Chemistry

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. Either of the two patterns shown below constitute the Minor in Chemistry, and students successfully completing this program will have the fact entered on their University records.

Pattern A	<i>Units</i>
Chem. 1101, 1102, 1103. General Chemistry	15
Chem. 2200. Quantitative Analysis	5
Chem. 3301, 3302, 3303. Organic Chemistry	15
Chem. 3500. Introductory Physical Chemistry	4
Two additional upper division courses in chemistry (minimum)	6
Total Units (minimum)	45
Pattern B	
Chem. 1101, 1102, 1103. General Chemistry	15
Chem. 2200. Quantitative Analysis	5
Chem. 3301, 3302, 3303. Organic Chemistry	15
Chem. 3511, 3512, 3513. Physical Chemistry Lecture	9
Total Units	44

Chemistry Option: Liberal Studies

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

Area II-B:	
Chem. 1101	
Phys. 2701	
Area V-A:	
Phys. 2702	(4)
Chem. 1102, 1103	(10)
Chem. 2200	(5)
Chem. 2301, 2302	(8)
Chem. 3500	(4)
Total Units	31

Credential Track (path for students seeking provisional credential as undergraduates)

Area II-B:	
Chem. 1101	
Area V-A:	

Chem. 1102, 1103	(10)
Chem. 2200 or Chem. 3500	(4-5)
Chem. 2301, 2302	(8)
Total Units	22-23

Physical Science Single Subject Waiver Programs

The B.S. Degree Major and the B.A. Degree Major, including the Option in Biochemistry, have been approved by the State Commission for Teacher Preparation and Licensing as waiver programs for the Single Subject Physical Science.

Master of Science in Chemistry

GENERAL INFORMATION

The Master of Science Degree in Chemistry serves several purposes: to extend the competence of persons employed in chemical industries and government laboratories and agencies, to further the professional skills of secondary school and junior college chemistry teachers, and to provide the first graduate degree for students anticipating advanced graduate study in chemistry. Candidates for this degree engage in significant individual research, and compose a thesis describing it. Candidates whose employers permit the use of appropriate facilities and approve the release of the applicable findings may arrange, subject to prior departmental approval, to conduct research on their employers' premises in support of M.S. theses. The requirements of the degree also include completion of 21 units in specified graduate chemistry courses, many of which are scheduled in the evening, and of 15 elective units including up to six units in courses in related fields, as enumerated below. Interested persons are invited to contact the Department directly for further particulars concerning the program and for information concerning the availability of teaching and research fellowships.

MASTER OF SCIENCE IN CHEMISTRY

Qualification and advancement in the Master of Science Degree Program in Chemistry are decided by the Department Graduate Studies Committee, with the concurrence of the Department. It is the responsibility of the student to be aware of his or her status in the program at any time.

Admission to the Program (Conditionally Classified Status)

To be admitted to the program, an applicant must

1. hold an undergraduate degree in chemistry equivalent to the B.S. Degree in Chemistry at CSUH, and
2. have obtained a minimum undergraduate grade point average of 2.5 in the last 90 units.

Students intending later to enter on a Ph.D. program are advised that chemistry departments at many universities require a reading knowledge of scientific German or Russian, and are encouraged to take Chem. 4700, which includes practice in translation from the German technical literature.

Additional supporting information, including letters of recommendation from former college teachers and score on the Graduate Record Examination (Advanced Test Chemistry), may be required by the department, depending on undergraduate grades.

Conditionally classified students are required to take qualifying examinations in the four major areas of chemistry at their first offering after receipt of notification of acceptance in the program (see below).

Admission to Classified Status

Classified status is accorded a conditionally classified student who has:

1. removed any deficiencies in the undergraduate degree,
2. passed qualifying examinations in inorganic, organic, physical, and analytical Chemistry, and
3. completed at least 12 units applicable toward the M.S. degree in chemistry with at least a 3.0 grade point average.

A student who had at least a 3.0 grade point average in all upper division chemistry courses

may be accorded classified status directly on entry if there are no undergraduate degree deficiencies. In this event, neither reference letters nor Graduate Record Examination score are required, and classified status is accorded subject only to satisfaction of the qualifying examination requirement.

Limitations on Duration of Conditionally Classified Status

Duration of conditionally classified status is determined, apart from the criteria listed above, by the following requirements:

1. The qualifying examinations must be taken at their first offering after receipt of notification of acceptance into the program, and
2. A failure in any area of the qualifying examinations obligates the student to pass that portion of the examinations at their immediately subsequent offering.

Qualifying examinations may be taken no more than twice; any student who fails twice in any area examination is subject to disqualification.

Qualifying examinations will be given immediately prior to Fall and Spring Quarters. Students entering in Fall or Summer Quarters will be directed to take the examinations at the Fall offering; those entering in Winter or Spring Quarters, at the Spring offering.

Selection of Thesis Adviser

Upon securing classified status and prior to being advanced to candidacy, each student is expected to have conferred with appropriate members of the faculty, and to have selected a research adviser with the approval of the Department Graduate Studies Committee. Once selected, the research adviser also acts as academic adviser.

Advancement to Candidacy

In order to be advanced to candidacy, the student must have:

1. been accorded classified status,
2. completed at least 12 units applicable toward the M.S. Degree in Chemistry, with at least a 3.0 grade point average, and
3. been assigned a research adviser.

Curricular Requirements

In order to be eligible for the degree, the student must:

1. be advanced to candidacy;
2. satisfy the CSUH requirements for the Master's degree (page 98);
3. satisfy the following specific course and area requirements:
 - a. a total of 21 units in required courses in Chemistry comprising the following:
 - Chem. 4521. Elements of Chemical Thermodynamics (3)
 - Chem. 6520. Chemical Kinetics (3)
 - Chem. 6820. Seminar (1,1,1)
 - Chem. 6830. Research (6)
 - Chem. 6850. Methods of Graduate Research (3)
 - Chem. 6910. Thesis (3)
 - b. a minimum of nine units from the Advanced Topics courses 6110, 6310, and 6510;
 - c. additional units to total the minimum required 45 to be selected, with the approval of the student's adviser, from additional graduate courses in chemistry (to include no more than four units of Chem. 6900, and three units of Chem. 6830), from the list of upper-division courses in chemistry acceptable for the Master's degree, and up to a maximum of six units from applicable courses in related fields, for example, in physics, earth science, or mathematics;
4. submit to the Department an acceptable Master's degree thesis.

**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 adviser.

Chem. 4162. Theoretical Inorganic Chemistry

Chem. 4180. Inorganic Chemistry Laboratory

Chem. 4210. Analytical Chemistry

Chem. 4310. Qualitative Organic Analysis

Chem. 4311, 4312. Advanced Organic Chemistry

Chem. 4330. Synthetic Organic Methods

Chem. 4340. Physical Organic Chemistry

Chem. 4411, 4412. General Biochemistry

Chem. 4430. General Biochemistry Laboratory

Chem. 4522. Elements of Chemical Thermodynamics, Second Quarter

Chem. 4540. Scientific Glassblowing

Chem. 4700. Survey of Chemical Literature

OPTION IN BIOCHEMISTRY

The Option in Biochemistry is intended for students with undergraduate training in biochemistry who wish to pursue their studies on the graduate level. It is suitable preparation for admission to doctoral programs in biochemistry as well as for employment in biochemical and health related research.

Admission to the Program (Conditionally Classified Status)

To be admitted to the program, an applicant must

1. hold an undergraduate degree or have completed coursework equivalent to the B.A. degree in Chemistry, Option in Biochemistry, at CSUH.

2. have obtained a minimum undergraduate grade point average of 2.5 in the last 90 units.

For further information on admission requirements, students are invited to contact the Department of Chemistry directly.

Admission to Classified Status

Classified status is accorded a conditionally classified student who has:

1. removed any deficiencies in the undergraduate degree.

2. passed qualifying examinations in organic, physical, and biochemistry, and

3. completed at least 12 units applicable toward the M.S. degree in Chemistry, Option in Biochemistry, with at least a 3.0 grade point average.

A student who had at least a 3.0 grade point average in all upper division chemistry courses may be accorded classified status directly on entry if there are no undergraduate degree deficiencies. In this event, classified status is accorded subject only to satisfaction of the qualifying examination requirement.

Limitations on Duration of Conditionally Classified Status

See p. 197.

Selection of Thesis Adviser

See p. 197.

Advancement to Candidacy

In order to be advanced to candidacy, the student must have:

1. been accorded classified status,
2. completed at least 12 units applicable toward the M.S. Degree in Chemistry, Option in Biochemistry, with at least a 3.0 grade point average, and
3. been assigned a research adviser.

Curricular Requirements

In order to be eligible for the degree, the student must:

1. be advanced to candidacy;
2. satisfy the CSUH requirements for the Master's degree (page 91);
3. satisfy the following specific course and area requirements:
 - a. the following required courses in chemistry totalling 24 units:
 - Chem. 4521. Elements of Chemical Thermodynamics (3)
 - Chem. 6430. Selected Topics in Biochemistry Laboratory (3)
 - Chem. 6520. Chemical Kinetics (3)
 - 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)
 - b. A minimum of six units from the Advanced Topics courses, 6110, 6310, 6510, 6430.
 - c. Additional units to total the minimum required 45 to be selected, with the approval of the student's adviser, from additional graduate courses in chemistry (to include no more than four units of Chem. 6900, and three units of Chem. 6830), from the list of upper-division courses in chemistry acceptable for the Master's degree, and up to a maximum of six units from applicable courses in related fields for example, in physics, earth science, mathematics, or biological science.
4. submit to the Department an acceptable Master's Degree thesis.

**UPPER-DIVISION CHEMISTRY COURSES ACCEPTABLE FOR THE
BIOCHEMISTRY OPTION, MASTER'S DEGREE IN CHEMISTRY**

Chem. 3531, 3532, 3533. Physical Chemistry Laboratory

Chem. 4180. Inorganic Chemistry Laboratory

Chem. 4210. Analytical Chemistry

Chem. 4310. Qualitative Organic Analysis

Chem. 4311, 4312. Advanced Organic Chemistry

Chem. 4330. Synthetic Organic Methods

Chem. 4340. Physical Organic Chemistry

Chem. 4522. Elements of Chemical Thermodynamics, Second quarter

Chem. 4240. Instrumental Methods of Analysis

Chem. 4161, 4162. Theoretical Inorganic Chemistry

Chem. 4700. Survey of Chemical Literature

UNDERGRADUATE COURSES

1100. Introduction to College Chemistry (5)

Fundamental principles of general chemistry. Recommended for students who have not previously taken a course in chemistry. Three hrs. lect., 6 hrs. lab., disc. (F, Su)

1101, 1102, 1103. General Chemistry (5 each)

Fundamental principles of chemistry. Laboratory includes descriptive chemistry of representative elements, qualitative analysis (second quarter), quantitative analysis. Prerequisites: Chem. 1100 or satisfactory performance on a placement examination covering high school chemistry and algebra; 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 (5 each)

A one-year, terminal sequence in chemistry intended primarily for students in the nursing program. Chem. 1601 emphasizes inorganic chemistry; Chem. 1602 emphasizes organic chemistry; Chem. 1603 emphasizes biochemistry. Does not satisfy chemistry requirements for physical science or biological science majors. Prerequisite: Chem. 1100 or high school chemistry and algebra. Chem. 1601 is prerequisite to Chem. 1602; Chem. 1602 is prerequisite to Chem. 1603. Three hrs. lect., 6 hrs. lab. each. (1601—W; 1602—Sp; 1603—F)

1920-1999. Directed Group Study (1-4)**2200. Quantitative Analysis (5)**

Elementary gravimetric and volumetric analysis; instrumental methods of analysis. Prerequisite: Chem. 1103. Three hrs. lect., 6 hrs. lab. (F, W, 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—F, W, Su; 2302—W, Sp, Su)

3110. Intermediate Inorganic Chemistry (3)

Inorganic compounds, their structure and physical properties from both theoretical and experimental points of view. Prerequisite: Chem. 2302 or Chem. 3302. (F)

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)

Correlation of chemical and biological phenomena. Introduction to laboratory procedures employed in studying biochemical processes. Prerequisite: Chem. 2302 or Chem. 3303. Three hrs. lect., 3 hrs. lab. (Sp)

3411, 3412. Clinical Biochemistry I, II (5 each)

The chemistry and metabolism of amino acids, proteins, carbohydrates, lipids and other molecules of biochemical interest. Emphasis on separation and analytical techniques in clinical chemistry. Prerequisites: Chem. 2200 and Chem. 2302 or Chem. 3303; Chem. 3411 is prerequisite to Chem. 3412. Three hrs. lect., 6 hrs. lab. each. (3411—W, 3412—Sp).

3500. Introductory Physical Chemistry (4)

An introductory study of the fundamental physical laws, theoretical principles and mathematical relations in chemistry. Prerequisites: Chem. 2200 or Chem. 2301 (or concurrent); Phys. 2703 or consent of instructor. Four hrs. lect. (F)

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, 3533. Physical Chemistry Laboratory (2 each)

Experience in the measurement of physicochemical properties, digital computer analysis of experimental data, and report writing. Experience with BASIC or FORTRAN computer programming recommended. Prerequisites: Chem. 3511 (or concurrent); Chem. 3531 is prerequisite to Chem. 3532; Chem. 3532 is prerequisite to Chem. 3533. Six hrs. lab. each. (3531—F; 3532—W; 3533—Sp)

4110. Introduction to Geochemistry (5)

(See Earth Sci. 4110 for course description.)

4161, 4162. Theoretical Inorganic Chemistry (3 each)

Bonding and structure of inorganic compounds. Mechanisms of inorganic reactions. 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. 3533 and Chem. 4162. Six hrs. lab. (Will not be offered in 1978-79.)

4210. Analytical Chemistry (4)

Introduction to the methods of research in the development of modern analytical chemical methods. Prerequisite: 3513 (or concurrent). (Will not be offered in 1978-79.)

4240. Instrumental Methods of Analysis (4)

Description of spectrometric, electrochemical and chromatographic methods of analysis; study of instrumentation used; experimental applications to analytical problems of practical interest. Prerequisites: Chem. 2200 and 3303; Chem. 3513 or concurrent. Three hrs. lect., 3 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. (Y)

4311, 4312. Advanced Organic Chemistry (3 each)

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. Prerequisites: Chem. 3303; Chem. 4311 is prerequisite to Chem. 4312. (4311—F, 4312—W)

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. 4310 or consent of instructor. Nine hrs. lab. (Sp)

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, Chem. 3303, and Chem. 3511 or 3500; Chem. 4411 is prerequisite to Chem. 4412. (4411—W; 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. (Sp)

4521, 4522. Elements of Chemical Thermodynamics (3 each)

Selected topics in classical and statistical thermodynamics, with emphasis on thermochemical calculations. Prerequisite: Chem. 3513. Chem. 4521 is prerequisite to Chem. 4522. (4521—F; 4522—W)

4540. Scientific Glassblowing (1)

The manipulation of glass to form scientific equipment including bending and drawing, straight seals, T-seals and triple seals. The use of the lathe and annealing oven will also be demonstrated. Prerequisites: Chem. 3533 or consent of instructor. Three hrs. lab. (Sp)

4700. Survey of Chemical Literature (3)

Systematic introduction to the use of the chemical literature. Prerequisites: upper-division standing; F.Lan. 1202 or Flan. 1205. May be taken credit/no credit by majors. (Sp)

4810. Undergraduate Research (2-4)

Independent research under the guidance of a member of the Chemistry Department faculty. Prerequisites: Chem. 3533; consent of instructor; at least a 3.0 grade-point average in all chemistry courses. May be repeated for credit.

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)****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)

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. 4312 or consent of instructor. (Y)

6430. Selected Topics in Biochemistry Laboratory (3)

Selected methods and advanced techniques of biochemical analysis with some applications to specific biological problems. Emphasis will vary; course may be repeated for a maximum of 6 units. Prerequisites: Chem. 4412 (or concurrent). Cross-listed with Biol. 6430. One hr. lect., 6 hrs. lab. (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)

6520. Chemical Kinetics (3)

The theory of rate processes; collision theory; deduction of reaction mechanisms; experimental techniques and practical applications. Prerequisite: Chem. 4521. (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. Prerequisite: 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. Prerequisite: Advancement to candidacy. (A)

6850. Methods of Graduate Research (3)

An introduction to advanced research methods including bibliographical, instrumental, and laboratory applications. Prerequisite: Classified graduate standing in chemistry. (Y)

6900. Independent Study (1-3)

A maximum of four units may be applied toward the degree. (A)

6910. Thesis (1-3)

The composition, preparation, and submission of a thesis based on individual research activities in accordance with acceptable standards. Prerequisite: Advancement to candidacy. (A)

6920-6999. Directed Group Study (1-3)

CRIMINAL JUSTICE ADMINISTRATION

(Criminal Justice Administration Committee; School of Arts, Letters and Social Sciences)

Associate Professor: Benjamin G. Carmichael (Director)

B.S. Degree Major, Criminal Justice Administration

The Criminal Justice Administration Program offers course work leading to the bachelor of science degree. The Criminal Justice Administration major is designed to (1) develop knowledge and understanding of practices, theory and concepts of justice administration; (2) prepare students for professional careers in justice administration.

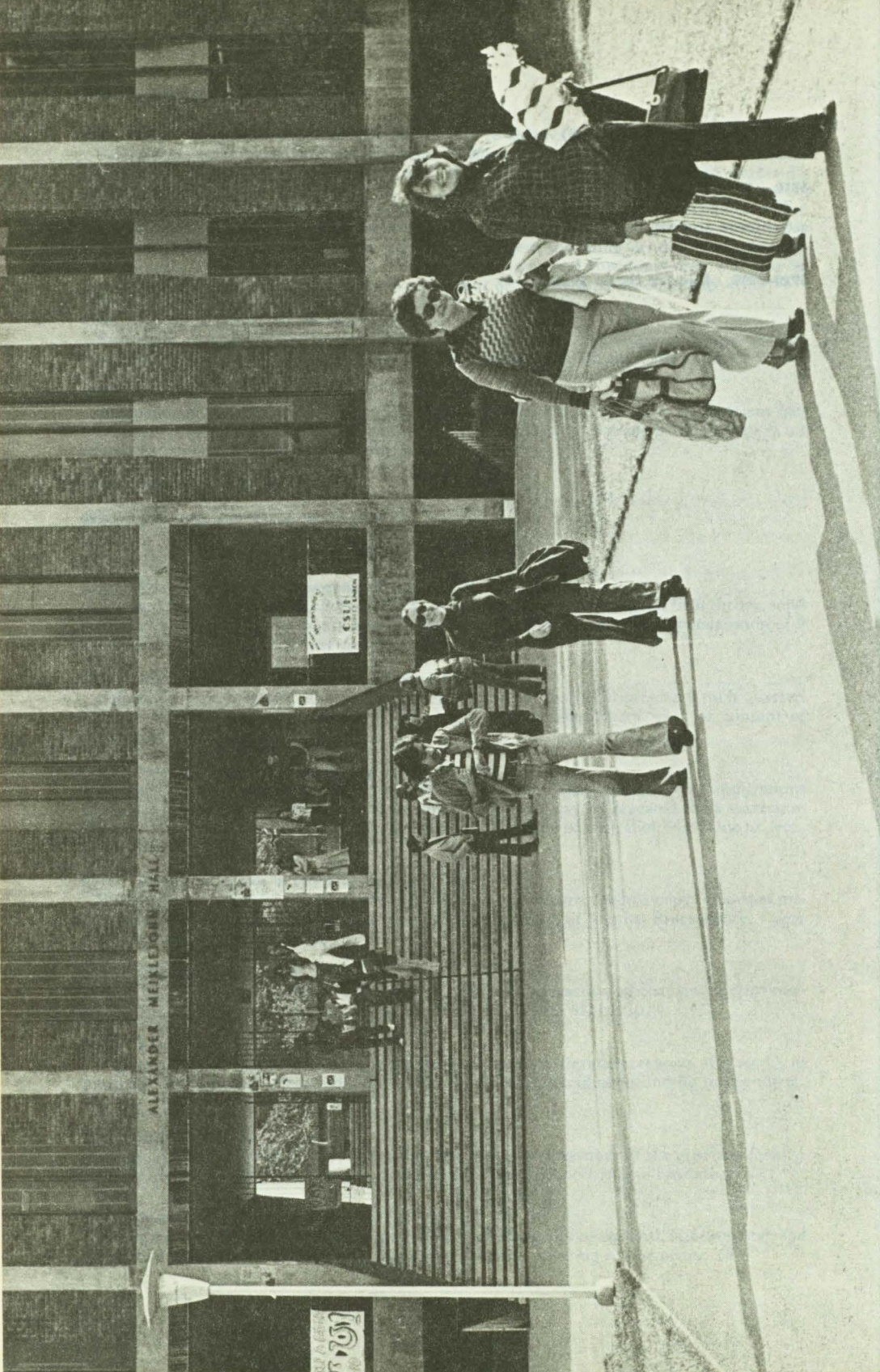
The major includes two specialized options: (A) Law Enforcement and Administration Option; and (B) Corrections Option. A total of 78 units of lower division and upper division course work is required to complete the major. Some major requirements must be taken in other departments of the University.

A candidate for the degree of Bachelor of Science with a major in Criminal Justice Administration must:

- I. Complete the 76-unit requirement in general education, which must be satisfied for the B.S. degree.
- II. Complete 78 units of lower division and upper division course work in the major as follows:

1. * Lower Division—34 Units	Units
CrJA 2100. Elementary Criminal Law	4
CrJA 2200. Basic Criminal Investigation	4
CrJA 2400. Evidence in Corrections and Law Enforcement	4
CrJA 2500. Administration of Justice.....	4
CrJA 2600. Police Community Relations.....	4
Psyc. 2000. General Psychology.....	5
Soc. 2000. Introduction to Sociology	4
Stat. 1000. Elements of Probability and Statistics	
or	
Stat. 2120. Elements of Statistics in Sociology	5
	34
2. Upper Division Core—16 Units	
CrJA 3200. Research Methods in Criminal Justice	4
CrJA 3700. Integrity in Public Agencies.....	4
PoSc. 3410. Law and Society	4
Soc. 4740. Criminology	4
	16
3. Options: Each student must select an option.	
<i>Option A: Law Enforcement and Administration—28 units</i>	
a. Students who elect to take Option A must complete each of the following 4 courses:	
CrJA 3300. Criminal Diversion, 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
	16
b. In addition, under Option A, students must complete a total of 12 additional units from the specialized elective area, to be chosen in consultation with a faculty adviser.	
<i>Option B: Corrections—28 units</i>	
a. 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
	16

* Lower division prerequisite to the major can be satisfied by successful completion of equivalent courses at a community college.



- b. In addition, under Option B, students must complete a total of 12 additional upper division units from a specialized elective area, to be chosen in consultation with a faculty adviser.

Students may 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 under this program.

	<i>Units</i>
Acct. 4280. Governmental Accounting	4
CrJA. 3100. Corrections and Criminal Justice	4
CrJA 3300. Criminal Diversion, Crime Prevention and Control	4
CrJA 3400. Advanced Criminal Investigation	4
CrJA 3500. Criminal Identification	4
CrJA 3610. Police Organization and Management	4
CrJA 3800. Comparative Evidence and Its Evaluation	4
CrJA 4700. Community Based Corrections	4
Anth. 3000. Anthropology in the Modern World	4
Anth. 3350. Urban Anthropology	4
Anth. 3430. Anthropology of Law	4
Anth. 3440. Political Anthropology	4
Anth. 3460. Culture and Personality	4
Anth. 3509. Asian American Peoples and Cultures	4
Anth. 3518. Mexican American Peoples	4
Anth. 3720. Medical Anthropology	4
Anth. 3730. Bilingualism in the United States	4
BISt. 3020. The Civil Rights Movement	4
Engl. 3003. Discursive Writing	4
* F.Lan. 3 courses in a single foreign language	4-4-4
Hist. 4526. The City in American History Since 1880	4
Mgmt. 3600. Theories of Management	4
Mgmt. 3614. Organizational Behavior	4
Phil. 3503. Philosophy of Law	4
PoSc. 3411. Law and the Poor	4
PoSc. 3412. Women and the Law	4
PoSc. 4340. The Political Status of Women	4
PoSc. 4442. American Constitutional Law	4
PoSc. 4450. Administrative Law	4
Psyc. 3500. Social Psychology	4
Psyc. 3520. The Psychology of Small Groups	4
Psyc. 4360. Psychopharmacology	4
Psyc. 4410. Behavior Pathology	4
Psyc. 4430. Psychology in the Community	4
Psyc. 4610. Psychology of Personality	4
Pu.Ad. 4800. Public Administration	4
Pu.Ad. 4830. Organization Theory and Human Behavior	4
Soc. 3410. Sociology of the Family	4
Soc. 3415. Sociology of the Afro-American Family	4
Soc. 3416. Sociology of the Mexican-American Family	4
Soc. 3500. Social Psychology	4
Soc. 3520. Sociology of Minority Groups	4
Soc. 3700. Introduction to Social Service	4
Soc. 3710. Social Policy	4
Soc. 3730. Juvenile Delinquency	4
Soc. 3745. Social Deviance	4
Soc. 4455. Social Organization of the Black Community	4
Soc. 4480. Violence and Conflict	4
Soc. 4500. Seminar in Small Groups	4
Soc. 4750. Child Welfare	4

* Strongly recommended.

COURSES

2100. Elementary Criminal Law (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)

The principles and methods of investigation used to acquire and to disseminate information about crimes. (Y)

2400. Evidence in Corrections and Law Enforcement (4)

The role of science and law in the utilization of physical and social evidence in justice administration. (Y)

2500. Administration of Justice (4)

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 re-venge. (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 2120 or equivalent. (Y)

3300. Criminal Diversion, Crime Prevention and Control (4)

Examination and analysis of procedural methods in the criminal justice system including operational concepts of prevention, diversion and control. (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. Integrity in Public Agencies (4)

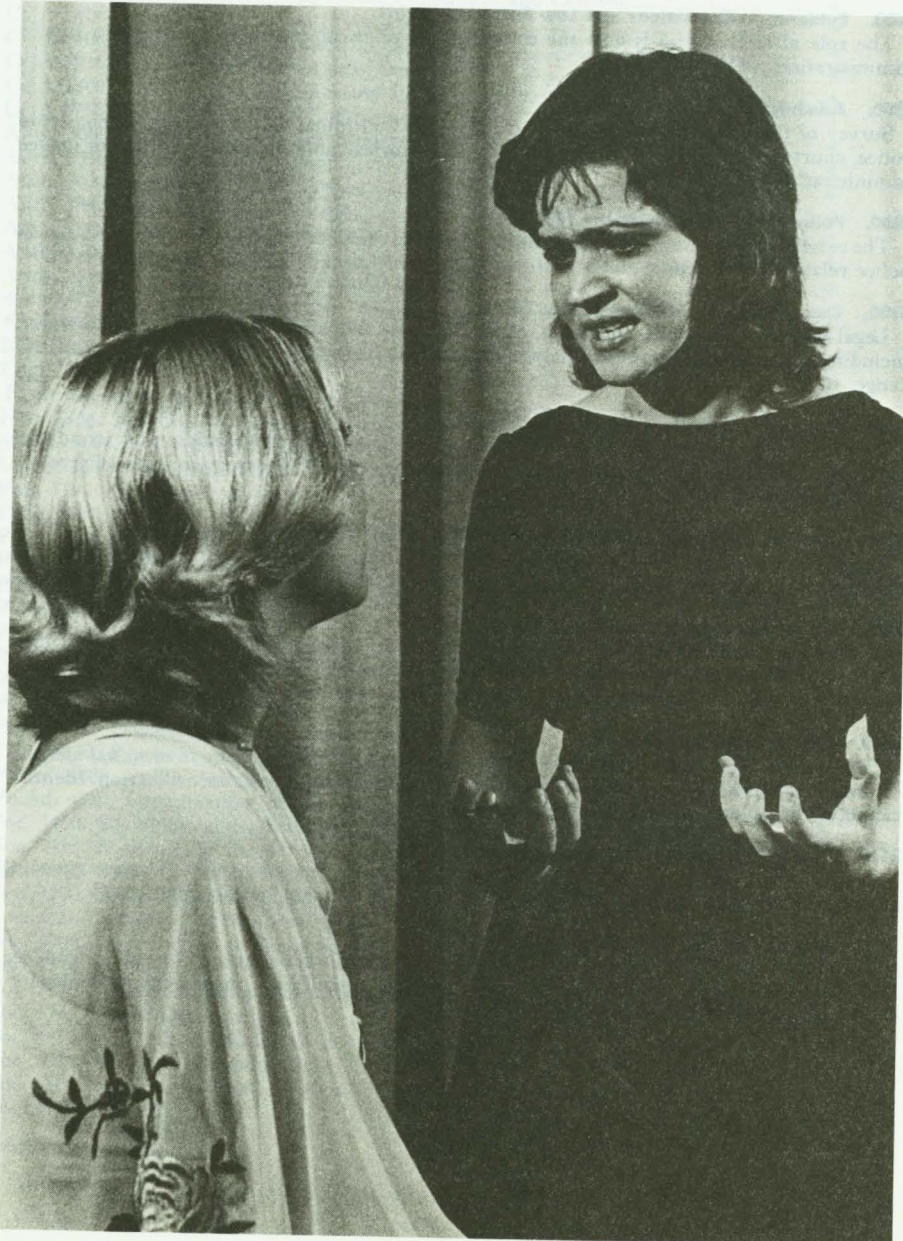
The application of social theories to the study and analysis of corruption in public agencies; case studies dealing with problems of integrity through organization, management, and leadership, with emphasis on the criminal justice system. (Y)

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)

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 corrections, community furlough and ex-offender employment. (Y)



DRAMA

(Department of Speech and Drama; School of Arts, Letters and Social Sciences)

Professor Emeritus: Jeanne L. Hall

Professor: James O. Costy (Coordinator)

Associate Professors: Donald B. Muir, Ralph H. Salgado, Virginia A. Willems

Assistant Professor: Thomas C. Hird

The Drama Major Leading to a B.A. Degree

The baccalaureate major in drama is offered to the student interested in pursuing one or more of the following goals: (1) a broad liberal-arts education; (2) training as a future participant in civic and community theatre work; (3) training to enter the professional theatre; (4) training as a future teacher of theatre arts; (5) preparation for graduate study.

Requirements are as follows:

I. Complete the 76-unit requirement in General Education.

II. Depending on the major option chosen, complete a minimum of 22 lower-division units; a minimum of 50 and a maximum of 54 upper-division units.

III. All majors complete the following courses:

	<i>Units</i>
Drama 1010. Introduction to the Theatre	4
Drama 2010. Pantomime and Movement	4
Drama 2011. Acting I	4
Drama 2111. Fundamentals of Play Production I	3
Drama 2112. Fundamentals of Play Production II	3
Drama 3201. Development of Dramatic Art I	4
Drama 3202. Development of Dramatic Art II	4
Drama 3203. Development of Dramatic Art III	4
Drama 4021. Play Direction I	4
Drama 4445. Theatre Organization and Management	3
Drama 4181, -2, -4, -5, -7. Workshops	10*
Total	47

IV. Complete courses required for specific options as follows:

A. *Acting-Directing Option*

Drama 2310. Interpretative Reading	4
Speech 2485. Voice and Speech Improvement	4
Drama 3012. Acting II	4
Drama 3013. Acting III	4
Drama 3918. Stage Makeup	2
Drama 4022. Play Direction II	4
Plus 6 units by advisement	6

Total Units

B. *Technical Option*

Drama 2150. Stagecraft	3
Drama 3150. Stage Lighting	4
Drama 3170. Drafting and Stage Mechanics	3
Drama 3422. History of Costume	4
Drama 3424. Scene Painting and Graphic Language	4
Drama 3918. Stage Makeup	2
Drama 4421. Scene and Lighting Design	4
Drama 4422. Costume Design	4

Total Units

* These ten units must be distributed as follows: two units in Drama 4182; two units in either Drama 4182 or 4184; and the remaining six units in any one workshop or combination of workshops.

C. General Option

Drama 2150. Stagecraft.....	3
Drama 2310. Interpretative Reading.....	4
Speech 2485. Voice and Speech Improvement.....	4
Drama 3150. Stage Lighting.....	4
Plus 13 units by advisement.....	13
	<hr/>
Total Units.....	28
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Total Units.....	75

D. Child Drama Option

Drama 2310. Interpretative Reading.....	4
Drama 3610. Interpretation of Children's Literature and Story Telling.....	3
Drama 3650. Creative Dramatics.....	3
Speech 4610. Speech/Drama in the Elementary Classroom.....	3
Drama 4650. Theatre for Children.....	3
Drama 4655. Advanced Creative Dramatics.....	3
Plus 9 units by advisement.....	9
	<hr/>
	28

(General Education courses strongly recommended: T.Ed. 5240, P.E. 5235, Art 5320)

Total Units.....	75
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Unit Summary

Major: Courses in Drama.....	75
Courses in supporting fields.....	0-4*

The Drama Minor

The student will enroll in a program of at least 30 units, 18 of which must be in the upper division to be selected in consultation with a Drama adviser.

I. Required Courses

Lower Division

Drama 1010. Introduction to the Theatre.....	4
Drama 2111. Fundamentals of Play Production I.....	3
or	
Drama 2112. Fundamentals of Play Production II.....	3
Drama 2310. Interpretative Reading.....	4
	<hr/>
	11

Upper Division

History, Theory, Literature

4 units from the following:

Drama 3201. Development of Dramatic Art I.....	4
Drama 3202. Development of Dramatic Art II.....	4
Drama 3203. Development of Dramatic Art III.....	4
Drama 3205. How to See a Play.....	4
Drama 3207. Modern American Theatre.....	4
Drama 4050. Trends in Modern Theatre.....	4
Drama 4800. Selected Topics in Drama.....	4
	<hr/>
	4

Performance, Production, Technical Design, Workshops

4 units from the following:

Drama 4181. Drama Workshop—Acting.....	2
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* Speech 2485, if taken, may be applied to the General Education requirement in Performing Arts and activities, but units are counted only once toward the 186-unit total for the degree.

Drama 4182. Drama Workshop—Technical.....	2
Drama 4184. Drama Workshop—Costuming.....	2
Drama 4185. Drama Workshop—Children's Theatre.....	2
Drama 4187. Laboratory Theatre Workshop.....	2
	<hr/>
	4

11 units By advisement.....	11
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Total Required Units.....	15
	<hr/>
	30

Drama Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)

Area IV E

Drama 1010 (4 units)

Area V A

Drama 2111 (3 units)

Drama 2310 (4 units)

Drama 4182 or 4184 (2 units)

Three Drama electives from 3610, 3650, 4185, 4610, 4650 (8-9 units)

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

Area V A

Drama 1010 (4 units)

Drama 2111 (3 units)

Drama 2310 (4 units)

Drama 4182 or 4184 (2 units)

Four or five Drama electives from 2215, 2220, 3207, 4050, 4310, 4750 (14-19 units)

Single Subject Waiver Program: English/Drama-Theatre

Engl 1001. Expository Writing.....	4
Spch. 1000. Principles of Speech Communication.....	4
Engl 3005. Study of Language.....	4
Engl 3010. Modern English Grammar.....	4
Engl 3020. Advanced Expository Writing *.....	4
8 units selected from the following:	8
Engl 2030-40. Introduction to Critical Writing I, II	
Engl 2070. Beginning Workshop in Fiction	
Engl 3070. Intermediate Workshop in Fiction	
Drama 1010. Introduction to the Theatre.....	4
Drama 2010. Pantomime and Movement.....	4
Drama 2011. Acting I.....	4
Drama 2111-2. Fundamentals of Play Production I, II.....	3-3
Drama 2150. Stagecraft.....	3
Drama 2310. Interpretative Reading.....	4
Drama 3150. Stage Lighting.....	4
Drama 3201-2-3. Development of Dramatic Art I, II, III.....	4-4-4
Drama 4021. Play Direction I (Theory).....	4
Drama 4182. Drama Workshop: Technical.....	2
Drama 4445. Theatre Organization and Management.....	3
Spch 2485. Voice and Speech Improvement.....	4
8 units from the following (must include 2 units of Drama 4182 or 4184):	8
Drama 4181. Drama Workshop: Acting	
Drama 4182. Drama Workshop: Technical	
Drama 4184. Drama Workshop: Costuming	
Drama 4185. Drama Workshop: Children's Theatre	

* Engl. 2030 and 2040. Introduction to Critical Writing I, II required as prerequisites (4-4).

Drama 4187. Drama Workshop: Children's Theatre	
12 elective units in Drama from:	12
Drama 2220, 3010, 3012-3, 3170, 3207, 3422, 3610, 3650, 3918, 4011, 4022, 4310, 4421-2, 4650, 4655, 4750, 4800	
Total Units Required in Waiver Program	102

COURSES

1010. Introduction to the Theatre (4)

A survey of the world of drama, leading to an appreciation of theatre as an entertainment medium and as an art form. Recommended for non-majors. (A)

2010. Pantomime and Movement (4)

Fundamental work in developing the body as an acting instrument. Theory and practice in the development of character in situation, utilizing kinesthetic recall, emotional memory, and the use of precise movement to project meaning. Two hrs. lect., 4 hrs. act. (Y)

2011. Acting I (4)

Beginning study and practice in scene preparation. Fundamental activity designed for achievement in performance through emotional discovery. Prerequisite: Dr. 2010. Two hrs. lect., 4 hrs. act. (F)

2111. Fundamentals of Play Production I (3)

An introduction to the elements of the physical theatre with emphasis on stage scenery and lights. Prerequisite: Dr. 1010. Two hrs. lect., 2 hrs. act. (F)

2112. Fundamentals of Play Production II (3)

An introduction to the elements of physical theatre with emphasis on stage costumes and makeup. Prerequisite: Dr. 1010. Two hrs. lect., 2 hrs. act. (W)

2150. Stagecraft (3)

A study of basic stage and shop equipment, materials and fundamental scenic construction techniques. Prerequisite: Dr. 2111 or consent of instructor. Two hrs. lect., 2 hrs. act. (W)

2215. Introduction to Radio and Television (4)

(See Sp 2215 for course description.)

2220. Art of the Cinema (4)

Study of the motion picture as a dramatic visual art, involving theories of film making, the viewing of films, and analysis of techniques. Two hrs. lect., 4 hrs. act. (Y)

2310. Interpretative Reading (4)

Theory, methods, and practice of oral communication of lyric, narrative, and dramatic poetry and prose. (A)

2485. Voice and Speech Improvement (4)

(See Sp 2485 for course description.)

3010. Improvisational Theatre (3)

Students improvise story, setting and costume in scenes using techniques ranging from vaudeville to mime to street theatre. Open to majors and nonmajors. Two hrs. lect., 2 hrs. act. (Y)

3012. Acting II (4)

Study of complex characterization. Prerequisite: Dr. 2011. Two hrs. lect., 4 hrs. act. (W)

3013. Acting III (4)

Advanced study of complex characterization, theory and practice of historical styles of acting. Prerequisites: Dr. 2011, 3012. Two hrs. lect., 4 hrs. act. (Sp)

3150. Stage Lighting (4)

A basic study of the physics and mechanics of stage lighting equipment and of theories of lighting design. Prerequisite: Dr. 2111 or consent of instructor. Two hrs. lect., 4 hrs. act. (F)

3170. Drafting and Stage Mechanics (3)

Advanced study of scene construction, including methods of specifying materials and techniques by mechanical drawing. Prerequisites: Dr. 2111 and 2150. One hr. lect., 4 hrs. act. (W)

3201. Development of Dramatic Art I: The Greek Period Through the 15th Century (4)

The historic development of the theatre from the Greek period through 1500, including study of representative plays, theatre architecture, and production. (F)

3202. Development of Dramatic Art II: The Renaissance Through the 18th Century (4)

The historic development of the theatre from 1500 through 1800, including study of representative plays, physical aspects of theatre, and production practices. (W)

3203. Development of Dramatic Art III: The 19th Century to the Present (4)

The historic development of the theatre from 1800 to the present, including study of representative plays, physical aspects of the theatre, and production practices. (Sp)

3205. How to See a Play (4)

Lecture on and discussion of contemporary drama on the stage. How the printed play is translated into visual and aural images. Attendance at selected theatre events is required. (formerly Drama 4050) (Y)

3207. Modern American Theatre (4)

Study of representative American playwrights and their theatre from 1920 to the present. (Y)

3422. History of Costume (4)

The historic development of Western costume from Egyptian to modern styles. (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. (Y)

3610. Interpretation of Children's Literature and Story Telling (3)

Techniques of story telling; selection and practice in reading poetry and prose for children. Suggested for elementary teachers and drama majors. Two hrs. lect., 2 hrs. act. (Y)

3650. Creative Dramatics (3)

Theory and techniques for developing the creative capacities of children through improvisations of stories; participation and leadership in creative dramatics provided by means of a creative dramatics class with children. Two hrs. lect., 2 hrs. act. (Y)

3918. Stage Makeup (2)

A study of the theories of stage makeup, with practical experience in the application of these theories. One hr. lect., 2 hrs. act. (Sp)

4011. Acting Studio (3)

Problems in acting for the advanced student. In-depth study of particular characters. Prerequisites: Acting I, II, III or consent of instructor. Two hrs. lect., 2 hrs. act. May be repeated for credit one time. (Y)

4021. Play Direction I (Theory) (4)

Basic procedures and fundamental principles of play direction. Prerequisites: Dr. 2011, 2111, 2112. Three hrs. lect., 2 hrs. act. (F)

4022. Play Direction II (Practice) (4)

Advanced procedures and practices in play direction: composition, movement, business, tempo. Practical application of methods in studio performance. Prerequisite: Dr. 4021. Two hrs. lect., 4 hrs. act. (W)

4181. Drama Workshop—Acting (2)

On-stage participation in departmental productions. Admission by consent of instructor. May be repeated for credit. (A)

4182. Drama Workshop—Technical (2)

Participation in construction, painting, lighting, and shifting of scenery for departmental productions. Prerequisite: Dr. 2111 or consent of instructor. May be repeated for credit. (F, W, Sp)

4184. Drama Workshop—Costuming (2)

Participation in the construction and maintenance of costumes for departmental productions. Prerequisite: Dr. 2112. May be repeated for credit. (F, W, Sp)

4185. Drama Workshop—Children's Theatre (2)

On stage participation in Theatre for Young People productions. Admission by consent of instructor after auditions. Six hrs. act. minimum. May be repeated for credit. (F, Sp)

4187. Laboratory Theatre Workshop (2)

Participation, both on and off stage, in various aspects of theatrical production, including original and experimental works and readers theatre. May be repeated for credit. Prerequisite: Consent of instructor. (A)

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. (Su)

4310. Advanced Interpretative Reading (4)

An intensive analysis of dramatic literature, emphasizing problems of content, structure, and style for the oral interpreter. Prerequisites: Drama 2310 or consent of instructor. (Y)

4421. Scene and Light Design (4)

A study of aesthetics and preparation of stage designs. Problems to include recording or execution of scenic and/or lighting designs. Prerequisites: Dr. 2111, 2150, 3150, 3170 or consent of instructor. Two hrs. lect., 4 hrs. act. (Alt. Sp.)

4422. Costume Design (4)

The design and construction of costumes for the stage, utilizing designs and patterns created by the students. Prerequisite: Dr. 2112, or consent of instructor. Two hrs. lect., 4 hrs. act. (Alt. Sp)

4445. Theatre Organization and Management (3)

The principles of theatre management and supervision: house management, publicity, box office, ticket sales, theatre safety and insurance, admission taxes, payroll procedures, employment contracts, and theatrical unions. (Y)

4610. Speech/Drama in the Elementary Classroom (3)

(See Speech 4610 for course description.)

4650. Theatre for Children (3)

Theory and techniques of selecting, directing, and producing plays by and for children. Opportunity for working with a children's play to be presented to a child audience. (Y)

4655. Advanced Creative Dramatics (3)

Advanced course in creative dramatics research, theory and practical experience in an elementary school classroom. Prerequisite: Drama 3650 and consent of the instructor. Two hrs. lect., 2 hrs. act. (Y)

4750. The Drama and Contemporary Problems (4)

Seminar in the study of contemporary socio-economic, moral, and political problems as they are reflected in the drama. Prerequisite: Upper-division standing. (Y)

4800. Selected Topics in Drama (4)

Specialized study of selected topics in the history, theory, literature or production styles of drama. May be repeated once with new content. Prerequisite: Senior standing or consent of the instructor. (Y)

4920–4999. Directed Group Study (1–4)

EARTH SCIENCES

(Department of Earth Sciences, School of Science)

Professors: Elwood R. Brooks (Chair), Jon C. Cummings, Leigh W. Mintz, Alexis N. Moiseyev, P. Victor Peterson, Jr., Robert C. Whitney

Associate Professors: Sue E. Hirschfeld, Detlef A. Warnke, Michael M. Wood

Lecturers: Ralph Gram, Jane E. Nielson Pike

Graduate Coordinator: Detlef A. Warnke

PURPOSES

The Department of Earth Sciences offers both undergraduate and graduate programs leading to B.S. and M.S. degrees in Earth Sciences. In addition it offers a variety of general education courses in the earth sciences of interest to students in other fields.

The undergraduate program consists of a core of 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 the earth sciences. A B.S. degree in Earth Sciences serves as preparation for employment in the field of geology, usually as a technician; those wishing to do independent geological work should plan on graduate study. Employment opportunities for earth scientists exist in federal, state, and local agencies; private industries and businesses; and in education.

The Earth Sciences Major Leading to a B.S. Degree

I. Complete the 76-unit requirement in General Education which applies to all majors (see p. 85 ff.). Completion of the core requirement listed in II. below satisfies 11-13 units of the *Natural Sciences* area requirement, 8 units of the *Basic Subjects* requirement, and 5 units of the *Social Sciences* area requirement or the *Upper Division* requirement (Geog. 3110). If Biol. 3520 is elected, an additional 4 units may be applied to the *Natural Sciences* area requirement.

II. Core requirement	Units
Chem. 1101, -2, -3	15
Math. 1304	4
Math. 1700	
or	
an introductory statistics course *	4
Phys. 1001, -2, -3	
or	
Phys. 2701, -2, -3 **	12-15
Earth Sci. 2101, 2201	9
Earth Sci./Geog. 3110	5
Earth Sci. 3510; 3610; 3701, -2, -3; 3730; 3810; 3910	30
Earth Sci. 4800	3
Earth Sci. 4820	8
	90-93

III. Electives

Students interested in an earth science subdiscipline (e.g., geobiology, oceanography, geochemistry/geophysics) are urged to consult the appropriate departmental faculty adviser to ensure an efficient choice of electives.

A. 15-18 units, depending upon physics sequence completed, from among the following earth science courses. At least 10 units at the 4000 level:

- Earth Sci. 1002, 1400
- Earth Sci. 3000, 3200 (not more than 4 units), 3400
- Earth Sci./Biol. 3520

* Students interested in geobiology should complete Stat. 3031.

** Students needing a relatively rigorous preparation in mathematics (e.g., for graduate study) are *strongly urged* to complete the calculus-based physics sequence (Phys. 1001, -2, -3); 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.B.

Earth Sci. 4010, 4110, 4120, 4141, 4310, 4610, 4630, 4830, 4902 (not more than 4 units)

- B. 15 units in Biological Sciences ***, Chemistry, Mathematics, Physics and/or Statistics *approved in advance* by faculty adviser *and/or* chosen from the list of earth science electives in III.A. above.

Total units in the major	123
Free electives	21-23
General Education courses	50-52
Total units for graduation	196

Minor in Earth Sciences

	Units
I. Core requirement	
Earth Sci. 2101, 2201	9
II. A. Option in <i>Environmental Earth Sciences</i>	
Earth Sci. 1400	4
Earth Sci. 3110, 3400	10
Electives in Upper Division Earth Sciences *	8
Total units	31
B. Option in <i>Paleontology</i>	
Earth Sci. 3510, 3520, 3730	10
Electives in Upper Division Earth Sciences *	11
Total units	30
C. Option in <i>Mineralogy/Petrology</i> **	
Earth Sci. 3610, 3701, 3702, 3703	16
Electives in Upper Division Earth Sciences *	5
Total units	30

Earth Sciences Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)

Area IIB

- Ph.Sc. 1340. Principles of Physical Science (5)
E.Sc. 2101. Physical Geology (5)

Area V A

- E.Sc. 2201. Evolution of the Earth (4)

At least three courses from the following list for a minimum of 14 units:

- E.Sc. 1400. Introduction to Meteorology (4)
E.Sc. 3110. Principles of Geomorphology (5)
E.Sc. 3200. Regional Field Geology (1-2)
E.Sc. 3400. General Oceanography (5)
E.Sc. 3520. Systematic Paleontology (4)
E.Sc. 3730. Principles of Stratigraphy (3)
E.Sc. 3810. Structural Geology (5)
E.Sc. 4310. Geology of California (4)

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

Area II B

- E.Sc. 2101. Physical Geology (5)
Ph.Sc. 1340. Principles of Physical Science (5)

Area II C

At least one course in Statistics is required

Area V A

- E.Sc. 2201. Evolution of the Earth (4)

*** Students interested in geobiology should complete Biol. 1101, -2, -3, and Biol. 3110, -20, -30.

* Must be approved *in advance* by faculty adviser.

** Open only to those who have completed one year of college chemistry.

At least five courses from the following list for a minimum of 24 units:

- E.Sc. 1400. Introduction to Meteorology (4)
E.Sc. 3110. Principles of Geomorphology (5)
E.Sc. 3200. Regional Field Geology (1-2)
E.Sc. 3400. General Oceanography (5)
E.Sc. 3520. Systematic Paleontology (4)
E.Sc. 3730. Principles of Stratigraphy (3)
E.Sc. 3810. Structural Geology (5)
E.Sc. 4310. Geology of California (4)

Single Subject Waiver Program: Physical Science

Those wishing to teach earth science in secondary school must, as part of their preparation, complete the following program of courses, approved by the State Commission for Teacher Preparation and Licensing.

Lower Division (36-39 units)

- E.Sc. 2101, 2201
 9 || Chem. 1101, -2, -3 | 15 |
| Phys. 1001, -2, -3 or 2701, -2, -3 | 12-15 |

Upper Division (46 units)

- E.Sc. 3400, 3510, 3610, 3701, 3702, 3703, 3730, 3810, 3910
 35 || E.Sc. 4800 (3 units), 4820 | 11 |

Total units required in waiver program

 82-85 |

The M.S. Degree in Earth Sciences

GENERAL INFORMATION

The Department of Earth Sciences offers graduate study leading to the Master of Science Degree in Earth Sciences with option in Environmental Geology. This program is designed to prepare students for: 1) employment as environmental geologists in government (city, county, regional, state, and federal) and private enterprise (consulting engineering firms, mining and oil companies, etc.), 2) research at the doctoral level in the environmental aspects of Geology, Geochemistry, Geophysics, Geomorphology, and Oceanography, depending upon their undergraduate background, 3) the Community College Instructor Credential Program to satisfy the Master's Degree requirement, and 4) it will provide continuing education for professional geologists, engineers, planners, etc. Candidates for this degree must be prepared to engage in significant individual research, or in professional work through an internship with public or private organizations. Some requirements for the degree may be satisfied by completion of courses in Biology, Economics, Environmental Studies, Geography, Public Administration, and Political Science. Interested persons are invited to contact the Department directly for more details on the program and the availability of financial help.

MASTER OF SCIENCE IN EARTH SCIENCES (ENVIRONMENTAL GEOLOGY OPTION)

Qualifications and advancement in the graduate degree program in Earth Sciences are decided by the Department Graduate Studies Committee, with the concurrence of the department. Students are responsible for being aware of their own status at any time.

Admission to the Program (Conditionally Classified Status)

Students who apply for the Master's Degree program, who meet University requirements, and who have been accepted by the Department will be accorded conditionally classified status (minimum qualification for acceptance is 2.50 GPA in all earth science courses). With this status they will have priority over unclassified post-baccalaureate students for enrollment in the departmental graduate courses.

Admission to the Program (Classified Status)

Classified Status will be accorded to any student who: a) has a Baccalaureate Degree in Earth Sciences or Geology, equivalent to the B.S. degree in Earth Sciences at this University, or any Baccalaureate degree and course work equivalent to the core requirements for the B.S. degree in Earth Sciences at this University, b) has attained a minimum of 3.00 GPA in all graduate work in Earth Sciences (3.25 if previous work in earth science courses was below 3.00 GPA), c) has received the adviser's approval to take qualifying examinations in the major program areas (notification of the date of qualifying examinations will be given by the student's graduate adviser after a decision has been made by the Departmental Graduate Studies Committee), and d) has successfully completed these examinations. Failure in any area of the qualifying examinations obligates the student to make up the deficiency to the satisfaction of the Graduate Studies Committee. Qualifying examinations may not be taken more than twice.

Selection of Thesis/Internship Adviser

Once classified status has been reached, each student will be assigned a Thesis/Internship adviser by the Department Chair after consultation with the student and with the Department Graduate Studies Committee. The faculty member chosen will also act as academic adviser.

Advancement to Candidacy

Advancement to candidacy is automatic after the student:

- 1) has been accorded Classified status,
- 2) has completed at least 12 units of courses applicable to the M.S. degree program with a GPA of at least 3.0 (or 3.25) and no D grade, and
- 3) has been assigned a Graduate Adviser.

Curricular Requirements for the Degree

A student becomes eligible for the Master's degree after he/she has:

- 1) been advanced to Candidacy,
- 2) satisfied the University requirements for the degree,
- 3) completed the following curricular requirements:
 - a) Required courses (16 units)
 - E.Sc. 6410. Geologic Hazards (4)
 - E.Sc. 6411. Engineering Geology (4)
 - E.Sc. 6500. Underground Fluids (4)
 - E.Sc. 6810. Environmental Geology Seminars (2,2)
 - b) Elective courses (20 units)

To be chosen from list of approved upper division and graduate courses in Earth Sciences and other disciplines (see p. 210) available from the graduate adviser. At least 12 units must be in Earth Sciences courses.
- 4) submitted to the Department and defended orally an acceptable Master's thesis, or shown evidence of acceptable professional work through Internship, or a combination of both for a total of 9 units. A final comprehensive examination will be required of those candidates who choose to complete their thesis/internship requirements through internship only.

UNDERGRADUATE COURSES

CONSERVATION COURSES

3000. Conservation of Natural Resources (5)

Interrelationships of soils, water, minerals, forests, grasslands, and wildlife; ecology applied in the wise use of natural resources. Suitable for Upper Division General Education requirement. Prerequisite: Completion of General Education area requirements in Natural Science. Five hrs. lect. (F, W, Sp)

3010. Environmental Challenge (4)

Man's environmental dependency. Local and regional case studies, current issues, and major

concerns including: pesticides, pollution, deserts, wilderness, environmental quality, energy, human population and others. Open for credit to Earth Sciences majors on petition to the department. Prerequisite: E.Sc. 3000 recommended. (Y)

4901. Independent Study in Conservation (1-4)

Must be taken credit/no credit.

4920-4999. Directed Group Study (1-5)

GEOLOGY 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. Prerequisite: None; concurrent enrollment in Earth Sci. 1002 recommended. Four hrs. lect./disc. (A)

1002. Problems in Environmental Geology (2)

Investigations of environmental geologic problems in the San Francisco Bay area, including landslides, earthquake hazards, and shoreline erosion. Prerequisite: Earth Sci. 1001 or 2101 (either may be taken concurrently). One hr. lect./disc., two hrs. act./field trips. (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 man and the sea. Does not satisfy requirements in Earth Sciences major. Four hrs. lect./disc., one optional Saturday field trip. (A)

1920-1999. Directed Group Study (1-4)

2101. Physical Geology (5)

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. (A)

2201. Evolution of the Earth (4)

Principles of interpretation of earth history. Origin, distribution, and evolution of continents, oceans, and mountain systems through time, and their relations to global tectonics. Prerequisite: Earth Sci. 2101 or equivalent. Three hrs. lect., 3 hrs. lab.; one Saturday field trip. (W)

3110. Principles of Geomorphology (5)

Analysis of landforms; effects of processes of diastrophism, weathering, mass-wasting, erosion, and deposition in shaping the earth's surface. Laboratory interpretation of maps and aerial photographs; two or more field trips required. Cross-listed with Geog. 3110. Prerequisite: Earth Sci. 2101. Four hrs. lect., 3 hrs. lab. (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 Earth Sciences major. Prerequisites: one introductory earth science course and permission of instructor. Must be taken credit/no credit. Thirty hrs. field/lab. per unit. (Y)

3300. An Invitation to Geology (4)

Introduction to geologic principles and methods of study with applications in selected topics of local and current interest. Particularly suited for students wishing to satisfy upper-division general education requirements. Not open to students who have had Earth Sci. 2101 or equivalent. Four hrs. lect./disc. (Y)

3400. General Oceanography (5)

(See also Marine Sciences: MSc 4101)

Physical, chemical, geological and biological characteristics of the sea including hydrodynamics, dissolved gases and solids, geology of the ocean basins, and marine ecosystems.

Prerequisites: familiarity with principles of the physical sciences and Earth Sciences 2101 or equivalent, or consent of instructor. Four hrs. lect., 3 hrs. lab.; one or two all-day Saturday field trips. Not open to students who have completed M.Sc. 4101. (F)

3510. Principles of Paleontology (3)

Origin, development, and diversification of life through geologic time. Principles of evolution, taxonomy, classification, functional morphology, and paleoecology with applications to stratigraphy and interpretation of earth history. Laboratory study of major fossil plant and animal groups. Two hrs. lect., 3 hrs. lab.; field trip(s). (F)

3520. Systematic Paleontology (4)

Morphology, paleoecology, evolution, classification, and geologic significance of fossil organisms including monerans, protists, fungi, invertebrate and vertebrate animals, and plants. Cross-listed with Bio.Sci. 3520. Prerequisites: Earth Sci. 2201 or Biol. 1103. Two hrs. lect., 6 hrs. lab. (Will not be offered in 1978-79.)

3610. Crystallography and Mineralogy (5)

Elements of crystallography, including orthographic and stereographic crystal projection, external crystal symmetry and morphology, and crystal classification; identification of minerals by their physical and chemical properties; chemistry and crystal structure of selected mineral groups. One Saturday field trip. Prerequisite: Earth Sci. 2101 or equivalent and Chem. 1103 or equivalent, or permission of instructor. Two hrs. lect., 9 hrs. lab. (F)

3701. Igneous Petrology (4)

Characteristics, occurrence, and origin of igneous rocks. Heterogeneous phase equilibria. Laboratory emphasizes rock classification based on hand-lens description of mineralogy and texture. Prerequisite: Earth Sci. 3610 or equivalent; concurrent enrollment satisfactory. Two hrs. lect., 6 hrs. lab.; one field trip. (F)

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: Earth Sci. 3610 and 3701. Two hrs. lect., 6 hrs. lab.; field trips. (W)

3703. Metamorphic Petrology (3)

Characteristics, occurrence, and origin of metamorphic rocks. Laboratory emphasizes rock classification based on hand-lens description of mineralogy and texture. Prerequisites: E.Sc. 3701 and 3702; concurrent enrollment in E.Sc. 3702 satisfactory. Two hrs. lect., 3 hrs. lab.; one field trip. (W)

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. Prerequisites: Earth Sci. 2201, and Earth Sci. 3510 or Biol. 1101, -2, -3. Two hrs. lect., 3 hrs. lab.; field trip(s). (Sp)

3810. Structural Geology (5)

Structural features of sedimentary and metamorphic rocks and mechanisms of their genesis; study of laboratory work on brittle fracture and plastic flow; solution of problems by descriptive geometry and stereographic projection. One weekend field trip. Prerequisite: Earth Sci. 2101 or equivalent and Phys. 2701 or equivalent, or permission of instructor. Three hrs. lect., 6 hrs. lab. (Sp)

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: Earth Sci. 3710, -20, -30 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: Earth Sci. 2101 and Phys. 2703 or equivalent. Three hrs. lect., 6 hrs. lab.; field trip required. (Sp)

4102. Marine Science Techniques (MSc 4102) (4)

(See *Marine Sciences section for course description*)

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: Earth Sci. 3610 (may be taken concurrently), Math. 1304, and Chem. 1103, or equivalents. Three hrs. lect., 6 hrs. lab. (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. Prerequisites: Earth Sciences 4110 or permission of instructor; Earth Sciences 3710 recommended. Three hrs. lect., 6 hrs. lab, two Saturday field trips. (W)

4141. Geological Oceanography (MSc 4141) (4)

A study of the structures, physiography and sediments of the sea bottom and shoreline. Not open to students who have completed M.Sc. 4141. Prerequisite: E.Sc. 3720, *and recommended:* a course in general oceanography (concurrent registration satisfactory). Three hrs. lect., 3 hrs. lab. One field trip.

4142. Marine Biogenic Sedimentation (MSC 4142) (3)

(See *Marine Sciences section for course description.*)

4143. Coastal Geomorphology (MSc 4143) (3)

(See *Marine Sciences section for course description*)

4171. Oceanographic Cruise (MSc 4171) (4)

(See *Marine Sciences section for course description*)

4310. Geology of California (4)

Study of the stratigraphy, igneous rocks, and structure of California; interpretation of the state's geologic history. Prerequisites: Earth Sciences 2101 or equivalent (Earth Sci. 2201 recommended) *and* permission of instructor. Two hrs. lect., 6 hrs. lab/field. Several weekend (overnight) and Saturday field trips required. (F)

4410. Physical and Chemical Oceanography (MSc 4410) (4)

(See *Marine Sciences section for course description.*)

4510. Micropaleontology (MSc 4510) (3)

(See *Marine Sciences for course description.*)

4610. Optical Mineralogy (5)

Elements of optical crystallography. Functions and use of the light polarizing microscope. Identification of minerals and amorphous solids in immersion liquids and thin sections. Prerequisites: Earth Sci. 3610 or equivalent and Phys. 2703 or equivalent, or permission of instructor. Two hrs. lect., 9 hrs. lab. (Sp)

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. (Will not be offered in 1978-79.)

4800. Seminar (1-3)

Critical, in-depth study of selected areas of current and classical research in the earth sciences. Topics not repeated in two-year interval; students may not receive credit more than 6 times. Prerequisite: senior standing or permission of instructor. One hr. seminar. (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: Earth Sci. 3710, 3720, 3730, 3810, and 3910 or equivalents and permission of instructor. (Su)

4830. Geological Field Studies in Western United States (4)

Field laboratory applications 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: Earth Sci. 3710, 3720, 3730, 3810, 3910, and 4820 or equivalents and permission of instructor. Forty hrs. field/lab. per week for 3 weeks. (Su)

4902. Independent Study in Geology (1-4)

Must be taken credit/no credit.

4920-4999. Directed Group Study (1-4)**METEOROLOGY COURSES****1400. Introduction to Meteorology (4)**

Introduction to the atmosphere, physics of the atmosphere, physical causes of climate; structure and circulation, weather and weather forecasting; emphasis on aspects of interest to the prospective or in-service teacher. Prerequisite: Phys. Sci. 1340 or equivalent. Four hrs. lect. (Y)

4151. Marine Meteorology (MSc 4151) (3)

See Marine Sciences section for course description.

4903. Independent Study in Meteorology (1-4)

Must be taken credit/no credit.

GRADUATE COURSES**6410. Geologic Hazards (4)**

Hazards to welfare and works of man 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. (F)

6411. Engineering Geology (4)

Application of geologic factors in location and planning of engineering works through study of case histories. Initiation to the use of geophysical techniques to solve engineering geologic problems. Prerequisites: E.Sc. 4010 (may be taken concurrently). Three hrs. lect., 3 hrs. lab. and/or field trips.

6413. Environmental Geochemistry (4)

Study of geochemical cycles of elements with emphasis on near surface environments and practical applications. Prerequisite: E. Sc. 4110. Three hrs. lect., 3 hrs. lab.

6420. Internship (1-9)

Professional experience for at least one quarter with a public or private organization involved in environmental geology studies. Prerequisites: departmental approval and classified status. May be taken jointly with E.Sc. 6910 for a total not exceeding 9 credit units.

6500. Underground Fluids (4)

Geologic controls of petroleum and ground-water circulation. Elementary theories of underground fluid flow. Applications to underground disposal of fluid wastes including radioactive materials. Prerequisites: E.Sc. 3810 and E.Sc. 4010. Three hrs. lect., 3 hrs. lab. and/or field trips. (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)

6810. Environmental Geology Seminar (2)

Investigation of a particular topic area as defined by the instructor. Must be taken twice for credit by students in Master's Program. Prerequisites: Graduate standing or consent of instructor. Two hrs. seminar. (Y)

6900. Independent Study (1-4)**6910. Thesis (1-9)**

Thesis dealing with a research problem approved by the graduate studies committee. May be related to, and taken jointly with, E.Sc. 6420, for a total not exceeding 9 units. Prerequisite: classified status.

EAST ASIAN STUDIES

(East Asian Studies Committee; School of Arts, Letters and Social Sciences)

Professors: David B. Chan, Glenn L. Glasow, Robert K. McKnight, Harry A. Nimmo, Robert S. Ozaki, Joseph A. Pugliese, Anil K. Sarkar, William L. Thomas

Associate Professors: W. Mark Fruin (Chair), Lindy Li Mark, James L. Nichols, Ricardo L. Singson

Assistant Professor: Dora Shu-fang Dien

MINOR IN EAST ASIAN STUDIES

The purpose of the Minor is to provide interested students with a coherent and consistent education on East Asia.

I. Core Courses (20 units)

1. One year of language (12 units)

FLan. 1601-2-3 or

FLan. 1611-2-3-4 or

FLan. 1651-2-3

(If satisfied by competency examination, an additional 12 units of electives must be taken under II below.)

2. One of the following three groups (8 units)

Anth. 3535, 3540

Geog. 3540, 3550

Hist. 3301, Phil. 2411

II. Electives (16 units)

1. Three or four courses from the following list. No more than two courses from one department. (12-16) units)

Art 4040

Anth. 3535, 3540

Geog. 3540, 3550

Hist. 3300, 3301, 3311, 3312, 3315, 3321, 3322, 3323, 4350

Mgmt. 4670

Phil. 2411, 3701, 3710

P.E. 2205, 3204

PoSc. 3248, 3570

2. As a substitute for one of the above courses, one course in Independent Study (0-4 units)

At least 18 units must be taken in courses from departments other than the student's major.



ECONOMICS

(Department of Economics, School of Business and Economics)

Professors: John W. Ashley, Charles W. Baird, Maurice Dance, Richard E. Jay, Robert S. Ozaki, Virgil Salera, Jay L. Tontz

Associate Professors: Alexander Cassuto, Robert S. Main, John M. Martin (Chair)

Assistant Professors: Charles H. Breeden, H. Roy Elliott, N. Gail Frey, Armando Gonzales

Lecturers: Anthony Lima, Shirley Svorny

Graduate Adviser: Alexander Cassuto

The Economics Major Leading to a B. A. Degree

PURPOSES

The Economics major is designed to provide the student with a liberal education with special emphasis on the economic aspects of modern society, to familiarize him or her with techniques for the analysis of contemporary economic problems, and to develop an ability to exercise sound judgement in evaluating public policy issues. There is training for the general student, for those who plan to attend graduate school in economics, law, and business administration, and those who seek professional careers as economists in civil service, non-profit institutions, private enterprise, elementary, secondary, and junior college teaching, or research.

Requirements

Units

All students must complete the General Education (G.E.) requirements as defined in this catalog. Some of the major requirements will satisfy required G.E. courses.

Lower-Division Requirements

* Math. 1801, 1802, 1803. Mathematics for Business and Social Sciences I, II, III; or Math 1300, 1304, 1305. Elementary Functions and Coordinate Geometry, Calculus I, II	12
Econ. 2301, 2302. Principles of Economics I, II	8
Stat. 2010. Elements of Statistics for Business and Economics.....	5
** One approved course in accounting	4
Total Lower Division Requirements.....	29

Upper-Division Requirements

(A) 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 and Banking.....	4
Econ. 4000. Seminar in Micro-Economic Theory	4
Mktg. 4495. Administrative Communications Systems	4
Total.....	20

(B) Complete 23-24 additional units to include:

(1) Econ. 4895. Workshop in Economic Research. (Must be taken 3 times, preferably during the senior year)	3
(2) Electives: Choose (a) or (b).	
(a) Five (5) courses in economics, but not including Econ. 3551 or 3552	20

* Students intending to attend graduate school in economics or business administration should complete the Math. 1300, 1304, 1305 series, plus additional electives in Math. 2101 and 2304, and a course in linear or matrix algebra (such as Math. 3100 and 3121).

** 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 and 2252.

* (b) Four (4) courses in economics, but not including Econ. 3551 or 3552	16
plus one (1) course from:	
Mgmt. 3100. Introduction to Quantitative Methods in Business	} Choice of one
Stat. 3502. Statistical Inference I	
Stat. 4610. Non-parametric Statistical Methods for the Social Sciences	
Total.....	23-24
Total Upper Division Requirements	43-44

Students expecting to receive the B.A. degree in economics from this University must complete at least 20 units of economics here.

III. Complete a minimum of 186 units of University courses.

The Economics Minor

Complete the following requirements for the minor:

Lower-Division Requirements

** Math 1801, 1802, 1803. Mathematics for Business and Social Sciences I, II, III; or Math. 1300, 1304, 1305. Elementary Functions and Coordinate Geometry, Calculus I, II	12
Econ. 2301, 2302. Principles of Economics I, II	8
Total Lower-Division Requirements	20

Upper-Division Requirements

(A) 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 and Banking	4
Econ. 4000. Seminar in Micro-Economic Theory	4
Note: Econ. 3000 (or Econ. 3551-3552) is a prerequisite for Econ. 4000, and Econ. 3005 is a prerequisite for Econ. 3310.	
(B) Two elective courses in economics	8
Total Upper-Division Requirements	24
Total Requirements for the Minor	44

Economics Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)

Two social science fields must be selected.

As first field:

Econ. 2301, 2302, 3000, 3005, 4895, and four 4-unit upper division Economics electives (except 3551, 3552)

As second field:

Five 4-unit Economics electives (except 3551 and 3552)

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

Two social science fields must be selected.

As first field:

Econ. 2301, 2302, 3000, 3005, 4895 and four 4-unit upper division Economics electives (except 3551 and 3552)

As second field:

Six 4-unit Economics Electives (except 3551 and 3552)

* Students intending to attend graduate school in economics or business administration should complete option (b).
 ** Students intending to attend graduate school in economics or business administration should complete the Math. 1300, 1304, 1305 series, plus additional electives in Math. 2101 and 2304, and a course in linear or matrix algebra (such as Math. 3100 and 3121).

Junior College Teaching Program

The requirements for a junior college teaching certificate may be met concurrently with the satisfaction of the requirements for the Master of Arts degree in Economics.

Double Major

Students majoring in economics should consider the advantages of a double major, particularly 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, it is relatively simple to obtain a double major in economics and mathematics or statistics.

For illustrative purposes only, the following represents a sample double major program in Economics and Statistics.

Example of Double Major in Economics and Statistics

First Year	Units
*Math. 1130	4
Math. 1300	4
Math. 1304	4
Math 1305	4
General Education and Electives	30
	46
Second Year	
Econ. 2301	4
Econ. 2302	4
Acct. 2210	4
Stat. 2400	4
General Education and Electives	30
	46
Third Year	
Econ. 3000	4
Econ. 3005	4
Econ. 3310	4
Econ. 4000	4
Stat. 3502	4
Stat. 3503	4
Upper Division Economics Electives	4-8
General Education and Electives	15-19
	47
Fourth Year	
Econ. 4895	3
One economics seminar (in addition to Econ. 4000)	4
Stat. 4601	4
Stat. 4602	4
Stat. 4610	4
Upper Division Economics Electives	8-12
General Education and Electives	16-20
	47
Total Required Courses	91
Total General Education and Electives	95
	186

* Not required of students who have completed at least three years of high school mathematics.

The Master of Arts in Economics

GENERAL INFORMATION

California State University, Hayward offers the Master of Arts degree in Economics.

REQUIREMENTS FOR THE M.A. DEGREE IN ECONOMICS

The Program is open to students holding a baccalaureate degree from an accredited college or university with a grade point average of 2.5 or higher in all undergraduate work and 3.0 or higher in all upper division and graduate work in economics and who have attained a score at or above the national norm on the Graduate Record Examination Aptitude Test. It is further required that upper-division course prerequisites for the seminars in the intended program of study be completed if the student has not taken such courses elsewhere. Deficiencies, if any, may be completed while registered as an *unclassified post baccalaureate student*, or as a *conditionally classified graduate student*.

Classification in the Program

There are three levels of advancement for students within the M.A. program: *Conditionally classified standing*, *Classified standing*, and *Advancement to Candidacy*. *Note*: If a student is in post-baccalaureate status but has not been accepted into a graduate degree program he or she is an *unclassified post-baccalaureate student* (formerly called a "non-objective" student). Admission to the University as an *unclassified post-baccalaureate student* in no way implies acceptance to a graduate degree program.

1. *Conditionally classified standing*. A student who has been admitted to a graduate degree program but who has not satisfied all prerequisite coursework or other requirements is a *conditionally classified* graduate student. A student may be admitted to a graduate degree program as a *conditionally classified* graduate student upon:
 - (a) submission of a written application, with required supporting documents, to the Admissions Office of the University declaring an intent to pursue the M.A. degree in Economics;
 - (b) acceptance by the Department; and
 - (c) completion of other appropriate requirements as specified in Graduate Degrees and Regulations, page 97.
2. *Classified 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; and has a strong background in economics will 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* standing by the Department.
3. *Advancement to Candidacy*. To be advanced to candidacy in the M.A. program a student must:
 - (a) be a *classified* graduate student in good standing;
 - (b) have filed an approved program of study with the Department;
 - (c) 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 (6000 series) work in residence at CSUH;
 - (d) have obtained a score at or above the national norm on the Graduate Record Advanced Economics Test; and
 - (e) 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 seven years just preceding the completion of the requirements for the degree; and
 - (2) not fewer than 32 must have been completed in residence; and
 - (3) not fewer than 28 must have been in economics courses in the 6000 series; and
 - (4) not more than 6 may have been for a thesis and/or projects (Econ. 6905 or Econ. 6910); and
 - (5) not more than 13 have been for extension and/or transfer course credit, as approved by the department;
- (c) have completed a satisfactory program of study as approved by the Department and the Dean of Graduate Studies, to include:

	Units
(1) Econ. 6001, 2. Seminar: Micro-Economic Theory	8
(2) Econ. 6005, 6. Seminar: Macro-Economic Theory	8
(3) Mgmt. 6010. Business and Economic Forecasting	4
(4) Three graduate seminars in Economics	12
(5) Elective courses (upper division or graduate) in economics, mathematics, or statistics taken as a graduate student and approved by the department	7-12
(6) Choice of one:	
(i) Econ. 6905. M.A. Research Paper	1-6
(ii) Econ. 6910. Thesis	1-6
Total	45
- (d) pass a comprehensive examination.

UNDERGRADUATE 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 Economics I (4)

Basic micro-economic concepts; introductory analysis of the determination of prices and output in different market situations; public policy. Prerequisite: sophomore standing. (A)

2302. Principles of Economics II (4)

Basic macro-economic concepts; introductory analysis of the determination of national income and employment; money and banking; fiscal policy. Prerequisite: Econ. 2301. (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. Prerequisite: 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)

3151. Economic History of the United States (4)

A survey of trends in the economic development of principal components of the American economy; emphasis on factors affecting economic growth, problems, and policies. Prerequisites: Econ. 2301, 2302.

3161. Economic History of Europe (4)

History of economic development of Europe from Roman times to the present. Special emphasis on institutional changes which led to economic growth. Prerequisites: Econ. 2301, 2302.

3200. Comparative Economic Systems (4)

Comparative study of different economic systems proposed or used to deal with the economic organization of society. Prerequisites: Econ. 2301, 2302.

3210. The Soviet Economy (4)

An introduction to the economic organization and policies of the U.S.S.R; growth, institutions, and problems. Prerequisites: Econ. 2301, 2302.

3310. Money and Banking (4)

Essentials of commercial and central banking; monetary policy. Prerequisite: Econ. 3005 or consent of instructor. (F, Sp)

3370. Public Finance (4)

Public sector economics: taxation, welfare economics, public goods, the rationale of government activity and collective choice. Prerequisites: Econ. 2301 and 2302. (Y)

3500. Regional and Urban Economics: Survey (4)

Economic analysis as applied to urban and regional economic problems and policies. Prerequisites: Econ. 2301, 2302. (Sp)

3551-2. Managerial Economics I, II (4 each)

A case analysis and problems approach to intermediate micro-economic theory stressing business applications. Prerequisite: Econ. 2301. Econ. 3551 is a prerequisite to 3552. Courses not open to economics majors. (A)

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. Prerequisites: Econ. 2301, 2302.

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. Prerequisites: Econ. 2301, 2302.

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)

4100. International Economics (4)

The basis of trade; foreign exchange; foreign investment; and world economic growth. Prerequisites: Econ. 2301, 2302. (Y)

4105. International Finance (4)

Emphasis on interpretation of the balance of payments and the adjustment to national and international equilibria through changes in price levels, exchange rates, and national income. Prerequisite: Econ. 4100.

4110. Economic Development (4)

The principles of development, with particular emphasis on underdeveloped countries. Prerequisites: Econ. 2301, 2302.

4305. Seminar in Environmental Economics (4)

Individual research projects on economic aspects of environmental problems: pollution, congestion, population, crime, etc. Written and oral presentation emphasizing critical class evaluation. Prerequisites: Econ. 2301, 2302. (Will not be offered in 1978-79)

4315. Senior Seminar in 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. (Will not be offered in 1978-79.)

4370. Senior Seminar in Public Finance (4)

Readings, discussion, and papers relating to problems in non-market resource allocation. Prerequisites: Econ. 3000.

4400. Introduction to Econometrics (4)

Applications of statistical techniques to obtain quantitative estimates of relationships suggested by economic analysis. Prerequisites: Econ. 3000, 3005; Mgmt. 3100 or Stat. 3010. Three hrs. lect., 2 hrs. act.

4520. Industrial Organization and Public Policy (4)

Factors determining industrial organization and economic behavior; operation of antitrust laws; public regulation. Prerequisite: Econ. 3000.

4590. Seminar in Economic Analysis (4)

Selected topics in past and/or contemporary economic theory depending on the interests of the students and instructor. May be repeated for credit under different instructors and for different topics. Prerequisites: at least junior standing and consent of instructor.

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)**4920-4999. Directed Group Study (1-4)****POST-BACCALAUREATE COURSES****5005. Graduate Introduction to Macro-Economic Theory (4)**

Graduate introduction to the measurement and analysis of the determination of national income and employment; general price level; stabilization and growth. Prerequisites: Graduate standing with no undergraduate intermediate macro-economics course. (Y)

5550. Graduate Introduction to Managerial Economics (6)

A course in intermediate micro-economic theory, incorporating business applications through case and problem assignments for individual and group presentation. Prerequisites: Graduate standing with no undergraduate intermediate micro-economics course. (F,W,Sp)

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.

6001. 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. Prerequisite: Econ. 4000, or consent of instructor. (W)

6002. 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. 6001. (Sp)

6005. Seminar: Macro-Economic Theory I (4)

First of two-quarter sequence: Review of periodical literature in the theory of national income determination, employment, and the price level. Prerequisite: Econ. 3005 and 3310 or equivalents, or consent of instructor. (F)

6006. Seminar: Macro-Economic Theory II (4)

Second of two-quarter sequence: Review of periodical literature in the dynamic aspects of inflation and economic growth. Prerequisite: Econ. 6005. (W)

6100. Seminar: International Economics (4)

Selected topics in international trade, commercial policy, and exchange. Prerequisites: Econ. 4100 or equivalent, or consent of instructor.

6110. Seminar: Economic Development (4)

Selected topics in the theory of economic development including alternative government policies to encourage development. Prerequisites: Econ. 4110 or equivalent, or consent of instructor.

6150. Seminar: Economic History (4)

Selected issues in the economic growth and development of the American-European economy. Prerequisite: Econ. 3151, or 3161, or equivalent, or consent of instructor.

6200. Seminar: Theory and Practice of Planning (4)

Review of selected issues on the problems of economic planning with special attention to command economics. Prerequisite: Econ. 3200 or equivalent, or consent of instructor.

6210. Seminar: The Soviet Economy (4)

Selected problems of economic measurement, resource allocation, national income, economic development, and planning in the Soviet Union. Prerequisites: Econ. 3210 or equivalent, or consent of instructor.

6310. Seminar: Monetary Theory (4)

Review of periodical literature on static and dynamic issues of the supply and demand for money. Prerequisite: Econ. 6006 or equivalent, or consent of instructor.

6370. Seminar: Public Finance (4)

Review of periodical literature on the theory of government finance with emphasis on problems of collective decision-making. Prerequisites: Econ. 3370 and 4370 or equivalents, or consent of instructor. (Y)

6520. Seminar: Industrial Organization and Public Policy (4)

Selected topics in industrial organization and public policy including antitrust policy. Prerequisites: Econ. 4520 or equivalent, or consent of instructor.

6680. Seminar: Labor Economics (4)

Selected topics on theoretical models of labor markets; application to current micro and macro economics manpower problems. Prerequisite: Econ. 3680 or equivalent, or consent of instructor.

6900. Independent Study (1-4)**6905. M.A. Research Paper (1-2)**

Research on approved topic. Prerequisite: Advancement to candidacy and an officially appointed research director. (A)

6910. Theses (1-6)

Research on approved topic. Prerequisites: advancement to candidacy and an officially appointed thesis director or committee. (A)

6920-6999. Directed Group Study (1-4)

EDUCATIONAL PSYCHOLOGY

(Department of Educational Psychology, School of Education)

Professors: Donald J. Brown, Dorlesa B. Ewing, David H. Frey, John A. Guthrie, Frederick E. Heslet, Donald P. McKillop, Viola B. Mecke, Leslie H. Mitchell, Beatrice O. Pressley, Thomas A. Soldahl, Douglas G. Sprague, Robert M. White

Associate Professors: Theodore G. Alper, Thomas G. Anderson, Steven E. Crapo, Jeremiah M. Horgan, Alvin H. Jones, Jr., Phyllis K. Kaplan, Harry M. Overline, Violet E. Spraings, Derald W. Sue, Thomas E. Whalen (Chair)

Assistant Professor: Marguerite R. Dugger

Lecturers: Chuc Kemesu, Richard J. Kravetz

Area Coordinators:

School Psychology: Theodore G. Alper

Special Education: Marguerite R. Dugger

School/Community Counseling: David H. Frey

Clinical Counseling : Donald P. McKillop

Educational Psychology: Donald J. Brown

The Educational Psychology Department is a graduate department offering Master's Degrees and Credentials. However, it does have two courses at the 4000 level and 5000 level which are open to upper division undergraduate students. Students who want an introduction to or who are contemplating entering the fields of Counseling, Psychology, Special Education, or related fields are encouraged to take EPsy. 4800 and 5021.

GENERAL INFORMATION

The Department of Educational Psychology offers a number of programs to train psychological specialists to work in school and non-school settings. Courses of study are available which are designed 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.

Program Offerings:

- Master of Science in Counseling
 - Option in School Psychology
 - Option in School Counseling
 - Option in Clinical Counseling
- Master of Science in Education
 - Option in Special Education
 - Option in Educational Psychology
- Credentials
 - School Psychology
 - School Counseling (Pupil Personnel Services)
 - Learning Handicapped } Special
 - Severely Handicapped } Education
 - Community College Counselor

Besides these credentials, this department also supplies course work and degrees which can be used as part of the requirement for:

- Marriage, Family, and Child License
- Educational Psychology License
- Psychological Assistant

Admission

Students are admitted once a year in the Fall Quarter. Those students who are accepted will have the opportunity to take classes the preceding quarter. Interested individuals should contact the department office before they apply to obtain the admission packet which contains descriptive materials and necessary forms. This packet is available after November 1 and the department will accept applications from November 1 through April 1. Notification of the action taken by this department will be mailed on or before June 15.

Procedures

A. Apply to the CSUH Admissions and Records Office. This department cannot process your request for entry until notification that your application blank and fee have been received at the CSUH Admissions Office.

B. Fill out the Departmental Request for Entry form and return it to the department office.

C. 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 some faculty member who is acquainted with your academic ability and promise. The School Psychology area requires five recommendations; the rest of the areas require three.

D. 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 two to four pages is an adequate length.

E. 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). The Clinical/School Psychology and the Special Education areas prefer the GRE; the other three areas are satisfied with either test. These tests are administered by the Testing Office at this University and the Educational Testing Service (Berkeley, California).

F. Submit a photo copy of all your transcripts to the department office besides the copies you send to the CSUH/Admissions Office.

G. Personal interviews with faculty are a required part of admission. Arrangements for these are described in the department admission packet.

Advising

Students who are accepted into the department will normally be admitted in classified standing and assigned an official adviser from the faculty of the department. The student must consult his or her adviser prior to registration for each quarter, and should maintain close contact at all times with the adviser for advice and information. Registration without the adviser's signature of approval will not be allowed.

Advancement to Candidacy

Advancement to candidacy for the master's degree as a formal degree candidate requires prior completion of the following steps:

1. Completion as a classified student of three or more courses at the 6000 level within the Educational Psychology Department.
2. Completion of all required departmental examinations and prerequisites.
3. Maintenance of a 3.0 grade point average or better in all departmental coursework and over all 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.

DEGREE REQUIREMENTS

1. Hold advanced candidacy standing.
2. Have completed 45 quarter units of approved graduate work of which:
 - (a) all must have been earned within the seven years just preceding completion of the requirements for the degree.
 - (b) not fewer than 32 must have been completed in residence
 - (c) not fewer than 23 must have been in courses in the 6000 series

- (d) not more than 9 may have been for a thesis or 5 for a project
 - (e) not more than 13 may be transfer or extension course credit
3. Have completed a satisfactory program of study as determined by the department and the Dean of Graduate Studies
 4. Have obtained 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 45 quarter units offered as satisfying the requirements of the degree program
 5. Have completed a thesis or project acceptable to the department.
- Students working toward the Pupil Personnel Credential have the additional option of a competency examination for the M.S. in Counseling degree, option in School Counseling.

PROGRAMS

M.S. IN COUNSELING, OPTION IN SCHOOL PSYCHOLOGY CREDENTIAL IN SCHOOL PSYCHOLOGY (Handled by School Psychology Area)

Faculty: Theodore G. Alper (Coordinator), Viola B. Mecke, Leslie H. Mitchell

This is a two-year program for full time graduate students leading toward the Master of Science Degree in Counseling and toward the Standard Designated Services Credential in School Psychology in California. The program provides a breadth of training in clinical psychology emphasizing the knowledge and practice of traditional and modern approaches to psychotherapy, psychodiagnostic assessment techniques, remediation of behavioral and learning problems, and mental health consultation. There is a special emphasis on behavioral approaches and classroom intervention techniques for the school psychologist.

Prerequisites for degree and credential:

- Statistics (Stat. 1000)
- Learning Theory (Psyc. 4200, 4210; HDev. 4510)
- Child Psychology or Human Development (Psyc. 4420, HDev. 3800)
- Abnormal Psychology (Psyc. 4410)
- Personality Theory (Psyc. 4610)
- Tests and Measurements (Psyc. 3200, 4730, 4790; EPsy. 6701)

Required courses for degree:

- EPsy. 6400. Family Psychotherapy (4)
 - EPsy. 6403. Psychotherapy with Children (3) } one course
 - EPsy. 6500. Principles of Behavior Therapy (3) }
 - EPsy. 6720. Theory and Assessment of Cognition (4)
 - EPsy. 6754. Multi-Cultural Aspects of Counseling and Psychotherapy (3)
 - EPsy. 6911. Developmental Assessment Practicum (4)
 - EPsy. 6660, 6661, 6662. Fieldwork (2, 2, 2)
 - or
 - EPsy. 6770. Internship (6)
 - EPsy. 6910. Thesis (2-9)
 - or
 - EPsy. 6899. Project (2-5)
- (Electives in school psychology are added to total 45 units)

Required courses for credential:

All courses required for degree.

- EPsy. 5021. The Exceptional Child (4)
 EPsy. 6023. Research in Applied Behavioral Sciences (4)
 EPsy. 6025. Psychopathology of Childhood (3)
 EPsy. 6160. Exceptional Child Assessment (3)
 EPsy. 6400. Family Psychotherapy (4)
 EPsy. 6403. Psychotherapy with Children (3)
 EPsy. 6500. Principles of Behavior Therapy (3)
 EPsy. 6501. Behavior Modification of the Learning Process (3)
 EPsy. 6610, 6620, 6630. Graduate Seminars (2, 2, 2)
 EPsy. 6746. Learning Disabilities (4)
 EPsy. 6747. Advanced Seminar in Learning Disabilities (3)
 EPsy. 6762. Group Theory and Procedures (4)
 EPsy. 6810, 6820, 6830. Advanced Graduate Seminar (2, 2, 2)
 EPsy. 6860, 6861, 6862. Advanced Fieldwork (2, 2, 2)
 or
 EPsy. 6880. Advanced Internship (2-6)
 EPsy. 6911. Developmental Assessment Practicum (4)
 EPsy. 6912. Personality Assessment (4)
 (Electives in EPsy, HDev, Soc, Spch, and/or Stat are added to total 90 units)

Doctoral Program (California School of Professional Psychology)

The School Psychology option participates in a cooperative program with the California School of Professional Psychology (San Francisco) leading toward the doctoral degree with a specialty in School Psychology. Students may apply for acceptance in the doctoral program in School Psychology at the same time as application is made to the program at California State University, Hayward. Upon successful completion of the Master's of Science Degree and the Credential in School Psychology, and upon the recommendation of the faculty, these students will continue at the California School of Professional Psychology (San Francisco) for the doctoral degree. Those students who are interested in applying for entrance into the doctoral program should request additional application materials from the department office.

**M.S. IN COUNSELING, OPTION IN SCHOOL COUNSELING
 SCHOOL COUNSELING CREDENTIAL
 (PUPIL PERSONNEL SERVICES)**

COMMUNITY COLLEGE COUNSELOR CREDENTIAL*(Handled by School/Community Counseling Area)*

Faculty: David H. Frey (Coordinator), Thomas G. Anderson, John A. Guthrie, Frederick E. Heslet, Jeremiah M. Horgan, Alvin H. Jones, Jr., Derald W. Sue

DEGREE REQUIREMENTS FOR OPTION IN SCHOOL COUNSELING

Prerequisites for degree

1. *Statistics*
 e.g. Stat 1000, Stat 1100 4-5
 2. *Abnormal Psychology*
 e.g. Psych 4410 4
 3. *Learning*
 e.g. Psych 4200, Psych 4210, TEd 5022, TEd 5023 3-4
 4. *Personality or Human Development*
 e.g. HDev 3800, Psych 4420, Psych 4610, TEd 5021 3-4
- Total Prerequisite Units 14-17

Competency Area Requirements

Students are required to demonstrate competency in the six areas listed below. Although students may work out with their adviser other methods of meeting these competencies, such as experience and previous course work, the courses listed after each competency are approved.

Competency	Approved Courses	Units
1. Counseling Theory Theoretical and research knowledge of the major systems and theories of counseling and psychotherapy.	EPsy. 6750. Foundations of Counseling (Formerly EPsy. 6974) and EPsy. 6751. Counseling and Psychotherapy Theory	4 4
2. Individual Development Ability to apply knowledge of individual dynamics and behavior to assist persons in growth and development.	EPsy. 6781. Health Personality or EPsy. 6700. Advanced Educational Psychology or Anth. 3460. Culture and Personality or Psych. 4620. Theories of Personality	4 4 4 4
3. Groups and Systems Demonstration of knowledge related to group leadership, systems analysis, or change agents in organization.	EPsy. 6762. Group Theory and Process .. or EPsy. 6763. Advanced Group Processes ..	4 4
4. Appraisal Demonstration of knowledge of theory and procedures of clinical assessment data.	EPsy. 6701. Appraisal Procedures: Standardized	4
5. Multi-Cultural Counseling Understanding, ability to work with, and sensitivity to individuals from a diversity of backgrounds, such as difference in cultural, ethnic, racial, sex, life style, and physical abilities.	EPsy. 6754. Multi-Cultural Aspects of Counseling and Psychotherapy or EPsy. 6782. Counseling Women	3 4
6. Research Ability to conduct and interpret research.	EPsy. 6023. Research in Applied Behavioral Sciences	4
Field Work Requirement*		
Student must complete three quarters of field work.	EPsy. 6660. Field Work I EPsy. 6661. Field Work II EPsy. 6662. Field Work III	2-4 2-4 2-4
Thesis/Project Requirement*		
Student must complete either a thesis or a project or a competency examination in the form of a written competency review and oral competency examination.**	EPsy. 6910. Thesis or Epsy. 6899. Project..... or Competency Examination	3-6 2-5 0
Total Required Units		33-37
Elective Units		8-12
Total Degree Units.....		45

* Field work and thesis/project units should not total more than 9 units.

** The competency examination consists of a written review and synthesis of the degree competencies developed by the student followed by an oral examination over these competencies by two faculty members.

<i>Electives</i>	<i>Units</i>
EPsy. 5021. Exceptional Child.....	4
EPsy. 6121. Counseling Exceptional Children.....	4
EPsy. 6402. Relationship Counseling.....	4
EPsy. 6405. Sex Counseling.....	4
EPsy. 6610. Graduate Seminar I.....	2
EPsy. 6620. Graduate Seminar II.....	2
EPsy. 6630. Graduate Seminar III.....	2
EPsy. 6702. Appraisal Procedures: Non-Standardized.....	4
EPsy. 6710. Career and Life Style Development Theory.....	4
EPsy. 6711. Career Life Planning.....	4
EPsy. 6764. Counseling and Systems Intervention.....	4
EPsy. 6783. Seminar: Contemporary Issues.....	2

Requirements for Pupil Personnel Credential

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, Option in School Counseling, 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) Assessment techniques.
- (4) Cross-cultural awareness.
- (5) Career development.
- (6) 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, course work, and field work. The field experience must be in both the elementary and secondary school levels and in a multi-cultural setting. A department faculty member will evaluate competency completion while a student is registered in a course appropriate to the area under consideration. Based upon these evaluations, the student will contract to complete and demonstrate the necessary competencies. There is an oral examination at the end of the process with faculty and school personnel when the competencies are reviewed. 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 course work, it will necessitate a two-year full-time commitment. Some 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 the maximum course work approach.

The M.S. in Counseling, Option in School Counseling (or an acceptable equivalent) is required.

Prerequisites:

Same as for the M.S. in Counseling, Option in School Counseling, as follows:

<i>Learning</i> (e.g. Psyc. 4200, or Psyc. 4210, T.Ed. 5022 or T.Ed. 5025).....	3-4
<i>Statistics</i> (e.g. Stat. 1000 or Stat. 1100).....	4-5
<i>Personality or Human Development</i> (e.g. HDev. 3800 or Psyc. 4420 or T.Ed. 5021 or Psyc. 4610).....	3-4
<i>Abnormal Psychology</i> (e.g. Psyc. 4410).....	4

Requirements

EPsy. 6750. Foundations of Counseling.....	4
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EPsy. 6751. Counseling and Psychotherapy.....	4
EPsy. 6762. Group Theory and Procedures.....	4
or	
EPsy. 6763. Advanced Group Processes.....	4
EPsy. 6701. Appraisal Procedures: Standardized.....	4
EPsy. 6754. Multi-Cultural Aspects of Counseling and Psychotherapy.....	3
or	
EPsy. 6782. Counseling Women.....	4
EPsy. 6023. Research in Applied Behavioral Sciences.....	4
and	
EPsy. 6910. Thesis.....	3-6
or	
EPsy. 6899. Project.....	2-5
or	
Competency Examination.....	0
EPsy. 6781. Healthy Personality.....	4
or	
Psyc. 4621. Theories of Personality.....	4
or	
Anth. 3460. Culture and Personality.....	4
EPsy. 6700. Advanced Educational Psychology.....	4
EPsy. 6763. Counseling and Systems Intervention.....	4
EPsy. 6711. Career Life Planning.....	4
EPsy. 6660, 6661, 6662. Field Work.....	6-12
EPsy. 6610. Graduate Seminar I.....	2
EPsy. 6620. Graduate Seminar II.....	2
EPsy. 6630. Graduate Seminar III.....	2
EPsy. 6860, 6861, 6862. Advanced Field Work.....	6
EPsy. 6810. Advanced Graduate Seminar I.....	2
EPsy. 6820. Advanced Graduate Seminar II.....	2
EPsy. 6830. Advanced Graduate Seminar III.....	2
Total Required Units.....	63-76

Electives

A student selects additional courses in the competency areas as determined by the department faculty to bring total to 90 units.

Elective Units.....	14-27
Total Program.....	90

M.S. IN COUNSELING, OPTION IN CLINICAL COUNSELING

(Handled by the Clinical Counseling Area)

Faculty: Donald P. McKillop (Coordinator), Steven E. Crapo, Dorlesa B. Ewing, Alvin H. Jones, Beatrice O. Pressley, Thomas A. Soldahl, Douglas G. Sprague

The general goal of this degree program is the development of counselors who can offer psychotherapeutic services to both groups and individuals in a wide range of non-school settings, such as vocational, family service, probation, alcohol and drug centers, mental health clinics, and other public and private service agencies. The degree does not lead to a specific license or credential, but the courses and degree can be used as part of the requirements for the Marriage, Family, and Child Counseling License.

DEGREE REQUIREMENTS FOR OPTION IN CLINICAL COUNSELING

Prerequisites for degree

	<i>Units</i>
1. <i>Statistics</i> e.g. Stat. 1000 or Stat. 1100.....	4-5
2. <i>Abnormal Psychology</i> e.g. Psyc. 4410.....	4
3. <i>Learning</i> e.g. Psyc. 4200 or Psyc. 4210 or T.Ed. 5022 or T.Ed. 5023.....	3-4

4. <i>Personality or Human Development</i> e.g. HDev. 3800, Psys. 4420, Psys. 4610, T.Ed.5021	3-4
Total Prerequisite Units	14-17

Competency Area Requirements

Students are required to demonstrate competency in the six areas listed below. Definitions of each competency area and approved courses are identical to those listed earlier for the Option in School Counseling.

Competency	Units
1. Counseling Theory	8
2. Individual Development	4
3. Groups and Systems	4
4. Appraisal	4
5. Multi-Cultural Counseling	3-4
6. Research	4

Field Work Requirement *

Students must complete three quarters of field work in a setting which provides clinical counseling.	EPsy. 6660 Field Work I.....	2-4
	EPsy. 6661 Field Work II.....	2-4
	EPsy. 6662 Field Work III	2-4

Thesis/Project Requirement *

Students must complete either a thesis or a project.	EPsy. 6910 Thesis	3-6
	EPsy. 6899 Project	2-5

Electives

Students may select electives from the following recommended list to complete unit requirements.

Courses	
EPsy. 6025. Psychopathology of Childhood	3
EPsy. 6400. Family Psychotherapy	4
EPsy. 6402. Relationship Counseling.....	4
EPsy. 6403. Psychotherapy with Children	3
EPsy. 6404. Family Communication Networks	4
EPsy. 6405. Sex Counseling.....	4
EPsy. 6502. Behavior Therapy of Social-Economic Problems.....	4
EPsy. 6610. Graduate Seminar I.....	2
EPsy. 6620. Graduate Seminar II.....	2
EPsy. 6630. Graduate Seminar III	2
EPsy. 6669. Seminar in Mental Health Consultation	3
Total Required Units.....	36-37
Elective Units	8-9
Total Degree Units.....	45

M.S. IN EDUCATION, OPTION IN SPECIAL EDUCATION CREDENTIAL IN SPECIAL EDUCATION: LEARNING HANDICAPPED, SEVERELY HANDICAPPED

(Handled by the Special Education Area)

Faculty: Marguerite R. Dugger (Coordinator), Phyllis K. Kaplan, Harry M. Overline, Violet E. Sprains

The option and credential are designed to develop individuals with specialist competencies required to meet the needs of exceptional individuals of all ages. Specialists may work in schools, agencies, clinics and rehabilitation centers as teachers or resource experts.

* Field work and thesis/project units should not total more than 9 units.

Prerequisite Course:

EPsy. 5021. Exceptional Child (4)

Required Courses:

EPsy. 6121. Counseling Exceptional Individuals (4)
 EPsy. 6124. Introduction to Psycho-Educational Diagnosis (4)
 EPsy. 6125.* Methods, Materials, Media (3)
 EPsy. 6126. Program Design and Evaluation (3)
 EPsy. 6127. Instructional Strategies (4)
 EPsy. 6128. Instructional Strategies Fieldwork (2)
 EPsy. 6129. Experimental Education (4)
 EPsy. 6130. Management, Consultation, Communication (3)
 EPsy. 6131. Advanced Psycho-Education Diagnosis (4)
 EPsy. 6132. Advanced Psycho-Education Diagnosis Fieldwork (2)
 EPsy. 6133. Specialist Competency I (4)
 EPsy. 6134. Specialist Competency II (4)
 EPsy. 6770.* Internship (6)
 EPsy. 6810.* Seminar (2)
 EPsy. 6899.** Project (2-5)

or

EPsy. 6910.** Thesis (2-9)

(Electives added to meet degree and credential requirements)

M.S. IN EDUCATION, OPTION IN EDUCATIONAL PSYCHOLOGY

(Handled by the Educational Psychology Area)

Faculty: Donald J. Brown (Coordinator), Thomas E. Whalen, Robert M. White

This option offers courses for students interested in developing expertise in research, evaluation, and testing in a variety of settings including education, mental health, criminal justice, government, public and private agencies. The program is quite flexible in that it has fewer required courses, more electives, and no field work or internship requirement. A typical degree program would be as follows:

Prerequisites:

Statistics (Stat. 1000 or 3010 or other comparable course)
 Learning Theory (Psych. 4200 or 4210 or other comparable course)
 Human Development (Psych. 4420 or HDev. or TEd. 5021)

Courses for the Degree:

EPsy. 6021. Thesis-Project Seminar (6)
 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 (4)
 EPsy. 6702. Non-Standardized Appraisal Procedures (4)
 EPsy. 6720. Theory and Assessment of Cognition (4)
 EPsy. 6910. Thesis (3)

Elective courses may be selected from within or outside the department.

UNDERGRADUATE COURSE

4800. Peer Advisement and Counseling (3)

Application of counseling techniques to problems of peer counseling and advising in a University setting. Emphasis on interviewing, sensitivity, communication, the counseling relationship, educational requirements. Two hrs. lect., 2 hrs. act. (F, W, Sp)

* For Credential Only.

** For Degree Only.

POST-BACCALAUREATE COURSES

5021. The Exceptional Child (4)

Characteristics of children who deviate physically, mentally, socially, or psychologically from normal children. Methods of identification and the development of remediation programs designed to meet the exceptionalities encountered. Prerequisite: Senior level standing. (A)

5570. Organization and Administration of Pupil Personnel Services (4)

Organizational patterns; roles, responsibilities, and interrelationships of personnel assigned to further personal, educational, and vocational goals of pupils. Relevant laws relating to the education, employment, health and welfare of school age children. Prerequisite: EPsy. 5750. Three hrs. seminar, 3 hrs. lab. (Y)

5750. Pupil Personnel Work (4)

Introduction to the basic services, philosophy, and history of pupil personnel services in schools and colleges, including the procedures, techniques and materials employed by counselors, school psychologists, psychometrists, and other psychologically oriented personnel. Four hrs. lect. (Y)

5900. Independent Study (1-4)**5920-99. Directed Group Study (1-4)**

GRADUATE COURSES

6021. Thesis-Project Seminar (3)

Group supervision approach to completion of project or thesis. Prerequisites: Classified student, permission of instructor. May be repeated for credit. (A)

6023. Research in Applied Behavioral Sciences (4)

Survey of research philosophy and methods for conducting studies in settings employing counselors, educators, and psychologists. 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 (3)

Seminar in developmental psychopathology; advanced case study, differential diagnosis, assessment procedures, treatment and placements. Prerequisites: EPsy. 6720 and EPsy. 6912. Three hrs. seminar. (Y)

6121. Counseling Exceptional Children (4)

Clinical application of counseling skills specifically related to the physical, mental, social, and psychological attributes of exceptional children. Prerequisite: EPsy. 5021. Four hrs. seminar. (Y)

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)

6125. Methods, Materials and Media for Exceptional Individuals (3)

Instruction in and evaluation of teaching methods, materials and media for exceptional children. Prerequisite: EPsy. 5021. Three hrs. seminar/disc. (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. Three hrs. seminar/disc. (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. Four hrs. seminar/disc. (Y)

6128. Instructional Strategies Fieldwork (2)

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. Prerequisite: T.Ed. 6020 or equivalent. Four hrs seminar/disc. (Y)

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. Three hrs. seminar/disc. (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. Four hrs seminar. (Y)

6132. Advanced Psycho-Educational Diagnosis Fieldwork (2)

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. Specialists Competencies I (4)

Integration of principles, procedures and techniques with the unique cognitive and affective needs of exceptional individuals. Prerequisite: EPsy. 6132. Four hrs. seminar. (Y)

6134. Specialist Competencies II (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. Prerequisite: EPsy. 6133 or consent of instructor. Four hrs. seminar. (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. Three hrs. seminar/disc. (Y)

6136. The Multi-Handicapped (3)

A delineation of the characteristics, problems and programming needs of a wide variety of handicaps. Prerequisite: EPsy. 5021. Three hrs. seminar/disc. (Y)

6137. The Emotionally Disturbed (3)

Etiology of emotional disturbance as viewed from several theoretical perspectives, e.g., psychodynamic, behavioral, and ecological. Specific treatment strategies in the home, school and institution explored in depth. Prerequisite: EPsy. 5021. Three hrs. seminar/disc. (Y)

6138. The Handicapped in Society (3)

An exploration of the anthropological, historical and sociological perspectives regarding the contemporary status of handicapped individuals in modern society. Prerequisite: EPsy. 5021. Three hrs. seminar/disc. (Y)

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. Three hrs. seminar/disc. (Y)

6160. Exceptional Child Assessment (2-6)

Clinical processes with mentally retarded, neurologically and emotionally handicapped children. Assessment and planning for developmental, adjustment, and learning problems. Prerequisite: EPsy. 6911. (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. Prerequisites: EPsy. 6750 or instructor's permission. Three hrs. seminar, 2 hrs. act. (Y)

6403. Psychotherapy with Children (3)

Discussion of theory pertaining to psychotherapeutic interventions with children. Emphasis on developmental psychopathology and its relationship to family interaction. Prerequisite: EPsy. 6400. Three hrs. seminar. (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. Prerequisites: EPsy. 6750 or instructor's permission. Three hrs. seminar, 2 hrs. act. (Y)

6500. Principles of Behavior Therapy (3)

Clinical and educational application of behavior therapy approaches. Operant, counter conditioning; modeling, cognitive, and other models; research issues and findings. Three hrs. seminar. (Y)

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. Three hrs. seminar. (Y)

6502. Behavior Therapy of Social-Emotional Problems (4)

Theory, research and practice of behavioral approaches to social and emotional problems with children and adults; current issues and applications. Prerequisite: EPsy. 6500 or consent of instructor. Three hrs. seminar, 2 hrs. act. (Y)

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)

Supervised fieldwork. Prerequisite: Departmental approval. (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. Three hrs. seminar. (Y)

6670. Field Work Group Supervision I, II, III (3, 3, 3)

Application in field settings of clinical skills related to the various areas of concentration: school and clinical counseling, and school psychology. Prerequisite: Classified standing and permission of instructor. Three hrs. seminar. (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. Prerequisites: Stat. 1000, Stat. 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. Prerequisites: Statistics (e.g., Stat. 1000, Stat. 1100, or equivalent). Three hrs. seminar, 2 hrs. act. (Y)

6710. Career and Life Style Development Theory (4)

Examination of theories of vocational and avocational choice and development with emphasis on the cultural, psychological and sociological antecedents and consequences. Prerequisite: Classified status in department. Four hrs. seminar. (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. 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. Prerequisite: EPsy. 6701. Two hrs. seminar, 6 hrs. lab. (Alt. Y)

6737. Adult Career Psychology (4)

Status and development of learning capacity, interests, emotions, psychological problems of work, education and leisure as they relate to the techniques and skills of counseling adults. Prerequisites: EPsy. 6701, 6735. Four hrs. seminar. (Y)

6746. Learning Disabilities (4)

Diagnosis of learning problems in the major areas of the school curriculum. Identification of resources and programs useful in remediation and in improved techniques of study. Prerequisite: coursework in measurement and learning. Three hrs. seminar, 3 hrs. lab. (Y)

6747. Advanced Seminar in Learning Disabilities (3)

Seminar in case study methods, diagnostic and remedial procedures; staffing, organization, reporting and evaluation methods. Prerequisite: EPsy. 6746 or consent of instructor. Three hrs. seminar. (Y)

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 status in department. 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)

6754. Multi-Cultural Aspects of Counseling and Psychotherapy (3)

Special application of counseling theory and practice to black, Asian-American, Spanish-American and other counselees in multi-cultural settings. Development of counselor sensitiv-

ity and effectiveness. Prerequisite: EPsy. 6750 or consent of instructor. Three hrs lect./disc. (A)

6762. Group Theory and Procedures (4)

Principles of group dynamics and group processes as applied to counseling groups organized for facilitating academic, vocational, or personal growth. Clinical involvement in a functional group experience and analysis of group processes. Prerequisite: EPsy. 6750. Three hrs. seminar, 3 hrs. lab. (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. Counseling and Systems Intervention (4)

Analysis of the counselor as part of a social system, e.g., school or agency; development of strategies for counselors to deal effectively with the system; investigation of methods and theories to determine system values, goals, and legal characteristics. Activity involves working with intervention models and case problems. Prerequisite: EPsy. 6750. Three hrs. seminar, 2 hrs. act. (Y)

6770. Internship (2-6)

Completion under supervision in appropriate field settings of assigned learning experiences in the area of the student's concentration. Prerequisite: Departmental approval. (Y)

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: Psych. 4610 or instructor's permission. Four hrs. seminar. (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)

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 status in department and instructor's permission. Two hrs. seminar. (Y)

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, 2, 2)

Application in field settings of advanced clinical skills related to the various areas of concentration. Prerequisite: Departmental approval. Two hrs. seminar. (Y)

6870, 6871, 6872. Advanced Field Work Group Supervision I, II, III (3, 3, 3)

Application in field settings of advanced clinical skills related to the various areas of concentration: school and clinical counseling, and school psychology. Prerequisite: Classified standing and permission of instructor. Three hrs. seminar.

6880. Advanced Internship (2-6)

Field assignment for advanced students completing the requirements for the various specialties. Prerequisite: Department approval. (Y)

6891, 6892, 6893. Supervision Seminar I, II, III (2, 2, 2)

Terminal integrative seminar for persons working toward supervising positions. Prerequisites: concurrent registration in EPsy. 6894, 6895, 6896, department approval, advance application, or EPsy. 6670. (Y)

6894, 6895, 6896. Supervision Fieldwork I, II, III (2, 2, 2)

Completion, under college faculty direction, of actual problems involving supervisory duties. Prerequisites: concurrent registration in EPsy. 6891, 6892, 6893, 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. 6891, 6892, 6893. (A)

6899. Special Project (2-5)

Supervised work on an approved study initiated by the student and negotiated with and approved by a supervisor and a reader. Prerequisites: Adviser, supervisor, and reader approval of project proposal. (A)

6900. Independent Study (1-4)**6910. Thesis (1-9)**

Supervised research on an approved problem. (Students will normally register for thesis over several quarters for a total number of units equal to the value designated in his candidacy contract.) Prerequisites: Approved topic, adviser and committee assignment, and completion of or concurrent enrollment in a research methods course. (A)

6911. Developmental Assessment Practicum (4)

Clinical practice under supervision with individually administered tests. Prerequisite: EPsy. 6720. Twelve hrs. lab. (A)

6912. Personality Assessment (4)

Study of instruments and procedures commonly employed in clinical study of emotional and social adjustment. Prerequisite: EPsy. 6720. Three hrs. seminar, 3 hrs. lab. (Y)

6920-6999. Directed Group Study (1-4)

ENGLISH

(Department of English; School of Arts, Letters and Social Sciences)

Professors: Jerry Bryant, Jack Conner, Martin Friedman, N. V. M. Gonzalez, Benjamin Johnson, George McMichael, Douglas L. Peterson, Marc L. Ratner, Morton Rosenbaum, Robert V. Williams

Associate Professors: Zelda Boyd, Edward Clay, Jacob Fuchs, Donald Markos, Terrence McVeigh, E. J. Murphy (Chair), Gwendolyn Staniforth

Assistant Professors: Marcelline Krafchick, Richard Matthews

Lecturer: Joyce B. Stith

PURPOSES

The discipline called "English," touching all other disciplines because people speak and write in all, is one of the most varied and richest. It is divided into three main parts: Literature, Language Study, and Composition; the division is done for convenience, rather than in recognition of some independence of the parts. Each of the three depends on and contributes to each of the others. Therefore the offering of the Department of English is made as rich as possible in each of the three.

The Department offers numerous courses of direct value to every student as "general" education. A suitable selection of these, along with some more specialized work, can lead to a Minor in English.

The Major in English includes broad, extensive study in the literature written in English and translated into English; a selection of intensive study of particular parts of the literature; study of the history of the language, or of its structure, or both; and practical instruction in critical, evaluative, and expository writing. The student may elect, and include in the major, supervised writing of fiction, verse, and translation.

The major in English leads naturally into many careers, which include teaching in public schools, in community colleges, and in institutions of higher learning; editing and writing for publishers of books, newspapers, magazines, trade journals, house journals of large organizations; preparing governmental reports, studies, and the like; journalistic work; free-lance writing. A strong grounding in literature, language, and writing is one of the best preparations for entry into, and success in, law school and the law.

Some graduates in English proceed to graduate work leading to the Master's degree and the Doctor's degree. The Department is proud of the record already compiled by its graduates, not only in scholarly advanced work but also in other pursuits.

Perhaps most important of all is the fact that human wisdom is recorded in written form, and recorded best in the literature of the world, so that this is among the most human and humane of disciplines.

ADVANCED PLACEMENT, ENGLISH

Students who have successfully completed the advanced placement course in English in high school and have earned a score of "3," "4," or "5" on the Advanced Placement Examination* will be granted 8 units of credit equivalent to Engl. 2030 and Engl. 2040.**

Students who have earned 8 units of credit through the Advanced Placement Examination are encouraged to challenge Engl. 1001. A successful challenge will earn 4 units of credit for Engl. 1001. (See *Credit by Examination*, p. 68.)

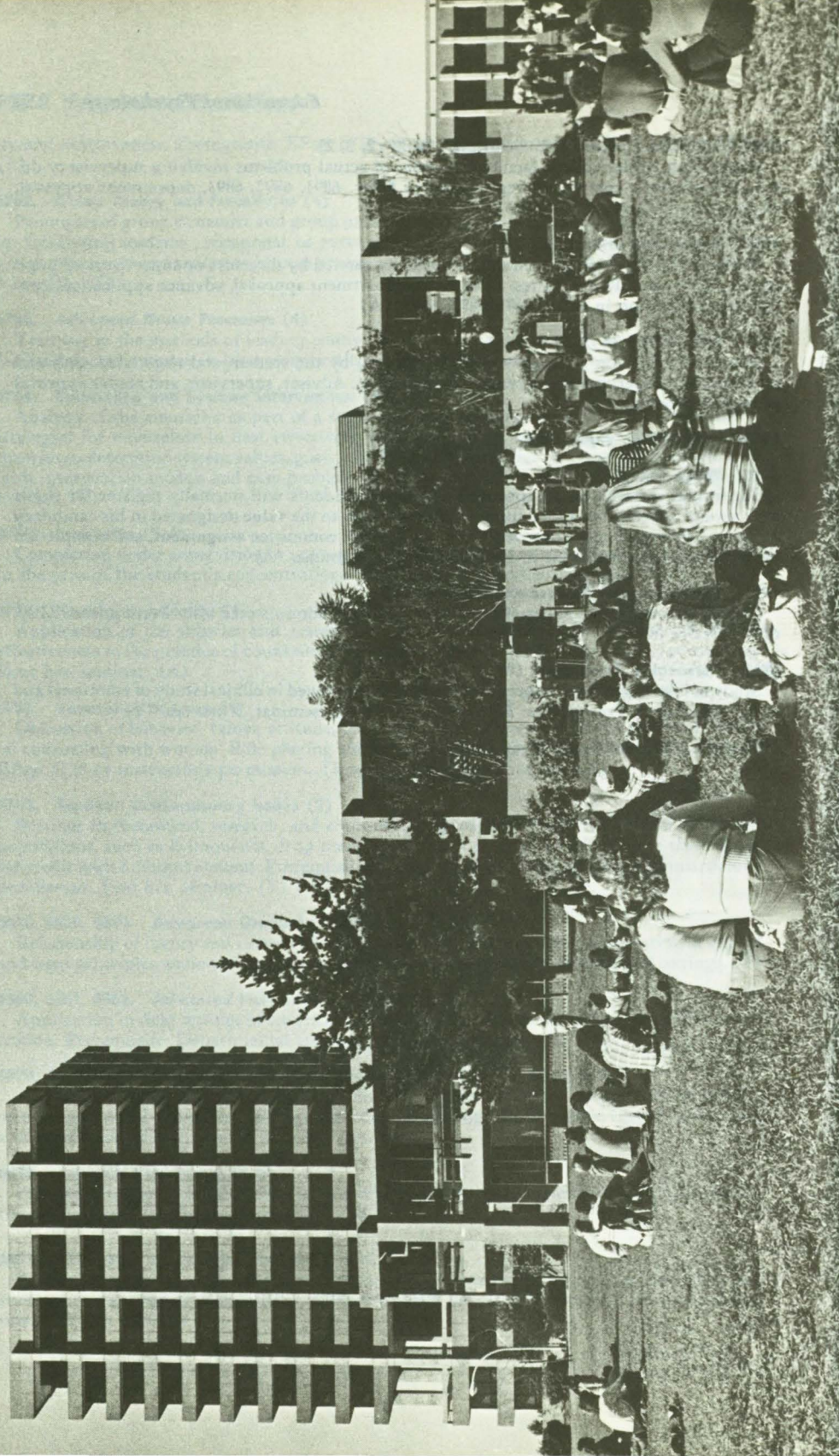
The English Major Leading to a B.A. Degree

Requirements

- I. Complete the 76-unit requirement in general education required for B.A. and B.S. degrees. Students majoring in English may apply up to 8 units of Foreign Language courses in satisfaction of the requirement in Basic Subjects and up to 20 units of appropriate and approved upper-division courses outside of English in satisfaction of the requirements in

* This is prepared and offered by the College Entrance Examination Board.

** No letter grade will be assigned or computed in the student's grade point average.



Humanities, Social Sciences, electives, or upper-division general education (see major requirement below, II.2.d).

II. Courses in English Major	60 units
1. Lower Division	8 units
After completing Engl. 1001 (in G.E. requirement of item 1), complete Engl. 2030 and Engl. 2040 in the lower division. The Department may approve for a transfer student other lower-division courses in English literary study and composition equivalent to Engl. 2030 and 2040	
2. Upper Division	52 units
Upper-division units (planned with an English Department adviser) to fulfill the following requirements:	
a. Course work in the structure and development of the English language: Engl. 3005, 3010, or 3040	4 units
b. Course work in major figures:	
1) Chaucer (Engl. 4151)	4
2) Shakespeare (Engl. 4251)	4
c. One course in each of the following periods:	
1) English literature before the end of the Renaissance, exclusive of Engl. 4151 and Engl. 4251; choose from Engl. 3710, 3720, 4152, 4220, 4252, 4260, 4810	4
2) English literature of the Restoration and 18th century; choose from Engl. 4325, 4813, 4831	4
3) English literature of the 19th century; choose from Engl. 3740, 3750, 4411, 4412, 4832	4
4) American literature before 1914; choose from Engl. 4634, 4635, 4636, 4860	4
5) English or American literature of the 20th century; choose from Engl. 3691, 3692, 3760, 3790, 4637, 4816, 4827, 4833, 4870, 4876	4
d. Twenty other upper-division units. Any course from another department must have the approval of the Chairman of the English Department. If a student has earned grades of "C" or higher in appropriate courses taken before the student achieves junior standing, the Department of English will allow substitution for up to 8 units of this requirement. (Appropriate courses are lower-division courses in English language and/or literature which are not remedial.)	20
III. Courses in Supporting Fields	0-24 units
Demonstrate a reading knowledge of a foreign language <i>either</i> (1) by completing the third quarter of Intermediate (second-year) Foreign Language or the third quarter of Foreign Language Reading with a grade of "C" or better or a grade of "credit" <i>or</i> (2) by passing a foreign language examination administered by the English Department.	

Unit Summary

Major: courses in English	40-60
courses in supporting fields.....	0-44

MINOR IN AMERICAN STUDIES

An English major may graduate with a minor in American Studies (see *American Studies* in this Catalog).

Minor in English

Requirements

- I. At least one course in writing beyond the freshman level; choose from Engl. 2020, 2030, 2040, 2070, 3003, 3020, 3070, 3075, 4070, 4075, 4080. (Apply units to item II, below.)
- II. English courses, excluding Engl. 1000 and 1001

- 1. Lower division
 - 2. Upper division
- 0-12 units
20-32 units
- III. All courses must be approved by an English Department adviser.

Minor in Creative Writing

Any candidate for the Bachelor's Degree may also elect to obtain a Minor in Creative Writing. After completing Engl. 1001, he or she must complete 32 quarter units, approved by a Creative Writing adviser.

I. Engl. 2070. Beginning Workshop in Fiction (4)	4 units
II. Select a minimum of 20 quarter units from	
Engl. 3070. Intermediate Workshop in Fiction (4)	
Engl. 3075. Intermediate Workshop in Poetry (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)	
Drama 4415. Playwriting (4)	20-24
III. Upper-division Modern American or British literature, or genre courses	4-8
Total	32

NOTE: Creative Writing courses may be repeated for credit. See course descriptions for limitations.

English Option in Liberal Studies Major

Liberal Arts Track; Credential Track (path for students seeking credential after graduation): 28-32 units of English. These courses should be upper-division courses. Students who elect lower-division courses should be careful that they do not thereby fail to meet the University B.A. degree requirement of "at least 60 quarter units in courses numbered 3000 or above," which may not be taken until the final quarter of Sophomore standing.

Credential Track (path for students seeking provisional credential as undergraduates): 20 units of English. English 3020 (4 units) or English 3070 or 3075 (4 units); and 16 units of English, preferably in upper-division. Students who elect lower-division courses should be careful that they do not thereby fail to meet the University B.A. degree requirement of "at least 60 quarter units in courses numbered 3000 or above," which may not be taken until the final quarter of Sophomore standing.

Note: Students who complete the credential track with an English option meet the proficiency requirement of advanced composition for the credential by their coursework in English 3020, 3070, or 3075.

The following courses are recommended:

- Engl. 3691. Black Literature I (4)
- Engl. 3692. Black Literature II (4)
- Engl. 3790. Black Literature III (4)
- Engl. 3801. The Drama (4)
- Engl. 4637. Studies in 20th-Century American Literature (4)
- Engl. 4710. Biblical Literature (4)
- Engl. 4711. Studies in Biblical Literature (4)
- Engl. 4720. Mythology (4)
- Engl. 4740. History of Children's Literature (4)
- Engl. 4820. The Lyric (4)
- Engl. 4836. The Short Story (4)

- Engl. 2070. Beginning Workshop in Fiction (4)
- Engl. 3070. Intermediate Workshop in Fiction (4)
- Engl. 3075. Intermediate Workshop in Poetry (4)
- Engl. 4070. Advanced Workshop in Fiction (4)

- Engl. 4075. Advanced Workshop in Poetry (4)
 Engl. 4080. The Art of Translation (4)

Single Subject Waiver Program: English

The following program has been approved by the State Commission for Teacher Preparation and Licensing as a waiver for the examination in the Single Subject English.

Speech 1004	4
Drama 2310 or Speech 3510	4-5
English 3005, 3010, 3040	12
English 3020 *	4
Engl. 4251, 4710, 4720, 4740	16
Engl. 3691 or 3692 or 3770 or 3790	4
Electives from the following associated disciplines:**	
English literature, American literature, World literature, Ethnic literature, Creative Writing, Dramatic literature, Practical Dramatics; or from Dram. 2310, Spch, 3510, MCom. 2000	15-16
Total Units	60

Master of Arts in English

GENERAL INFORMATION

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.

REQUIREMENTS FOR THE DEGREE

Admission to the Program

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 University's Admissions Office). The Admissions Office will then send the application to the English Department where it will be accepted or rejected.

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 grade-point average in English courses of at least 3.0. If the student cannot comply with these requirements, he or she 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 a 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 adviser on selecting courses and satisfying the Department's M.A. foreign language requirement (see "Foreign Language Requirement" below).

All students except those who are classified graduate students in English must have the written permission of an English graduate adviser to enroll in a graduate course in English.

Advancement to Classified Status and Candidacy

The student is normally admitted to the program in English as a "Conditionally Classified" student. One condition to his or her being fully "Classified" is that he or she pass Engl. 6001 with a grade of A or B. There may be other conditions to his or her "Classified" status if he or she has been admitted to the program with deficiencies; the student should consult with a graduate adviser to determine whether this is the case. After all conditions have been met, the

* Engl. 2070 with grade of A or B may be substituted.

** The student is urged to complete the elective units in a single associated discipline.

student will be granted "Classified" status as a graduate student in English. To be advanced 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 course work (including Engl. 6001) acceptable for the M.A.

Curricular Requirements and Thesis

The student must complete, with grades of A or B, 45 quarter-units of credit approved by a graduate adviser. At least 28 of the 45 quarter-units must be in English courses numbered 6000-6999 other than 6900 (Independent Study) and 6910 (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, 5030, 6900, and 6910.

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 the thesis option must comply with the thesis instructions of the Department of English as well as those of the University's Graduate Studies Office.

Foreign Language Requirement

The student must demonstrate by written examination a reading knowledge of a foreign language. The MA. foreign language examination, which is arranged through the English Department Office, will consist of translating into English a passage on the history or in the criticism of English or American literature. The student may use a dictionary.

Final Examinations

The student must pass written final examinations in two of six areas. Each of the two examinations will take three hours and will consist of ten short answers and two essays: the first essay on specific authors or works, the second on a more general literary topic. Within the first two weeks of the quarter in which the student intends to take the two final examinations, he or she must sign up in the English Department Office for the two areas in which he or she chooses to be examined. He or she must select one area from each of the following two groups: (1) Medieval Literature, Renaissance Literature, Restoration and 18th-Century British Literature; (2) 19th-Century British Literature, American Literature to 1900, 20th-Century British and American Literature. The final examination for any area will assume that a student has a general knowledge of the language and literature of other areas.

Applying for Graduation

A student must apply formally to graduate with a master's degree. He or she must submit a "Candidate for Degree" card at the registration period for the quarter before the one in which he or she expects to graduate. Also during the quarter before the one in which he or she expects to graduate, he or she must ask the Department's Graduate Coordinator to send a "Major Check" sheet to the Graduate Evaluations Office.

UNDERGRADUATE COURSES

1000. * Basic Writing (4)

Designed as a preparation for Engl. 1001, this course introduces students to basic methods of outlining expository essays, developing thorough, clear paragraphs, and composing clear, conventional sentences in Standard Written English. One hr. lect., 3 hrs. disc. (Y)

1001. ** Expository Writing (4)

The theory and practice of expository writing. Required of all students. Engl. 1001 meets general education requirements in *Basic Subjects, Item 1*. May be repeated once for credit, but

* This course will not satisfy any part of the one-year-of-English requirement for the credential candidate under the Fisher Act.

** This course will not satisfy any part of the one-year-of-English requirement for the credential candidate under the Fisher Act who has already taken an equivalent freshman composition course.

only the first enrollment may be applied to the Basic Subjects G.E. requirement. (A)

1920–1999. Directed Group Study (1–4)

2010. * Vocabulary Building (2)

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)

2020. The Research Paper: Preparation and Writing (4)

An introduction to the writing of term papers: the use of secondary sources, footnoting, organization of material, and the effective written presentation of research findings. Prerequisite: Engl. 1001. (Y)

2030. Introduction to Critical Writing I (4)

The theory and practice of critical writing, based on readings in fiction and prose drama. Prerequisite: Engl. 1001. (A)

2040. Introduction to Critical Writing II (4)

The theory and practice of critical writing, based on readings in verse. Prerequisite: Engl. 1001. (A)

2070. Beginning Workshop in Fiction (4)

Introduction to imaginative writing of various types. Prerequisite: Engl. 1001. May be taken twice for credit. (A)

2259. Readings in Shakespeare (4)

Major themes in Shakespeare. An introductory course for non-majors. No credit for English majors. Prerequisite: Engl. 1001. (Y)

2817. Film and Literature (4)

Lecture-discussion, with film, comparing the film version to its literary source and emphasizing characterization, theme, and technique. May be repeated once for credit with different titles of literature and consent of instructor. Prerequisite: Engl. 1001. (Y)

2818. Modern Science Fiction (4)

Study of selected science fiction authors or topics. Prerequisite: Engl. 1001. (Y)

2819. Literature of Mystical Sensibility (4)

Reading in the literature of traditional and contemporary mysticism. Prerequisite: Engl. 1001. (Y)

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. Prerequisites: Engl. 1001 and junior standing. (A)

3005. Study of Language (4)

Origins, development, acquisition, and diversity of language; theory of communication; symbolic systems including phonology and conventional forms of writing; vocabulary, grammar, and semantics. Prerequisite: Engl. 1001. (Y)

3010. Modern English Grammar (4)

The structure of standard written English, with emphasis on its relation to literature and on its historical development. Prerequisites: Engl. 1001 and junior standing. (Y)

3020. Advanced Expository Writing (4)

An advanced course in the theory and practice of expository writing. Prerequisites: Engl. 2030 and 2040. (Y)

* This course will not satisfy any part of the one-year-of-English requirement for the credential candidate under the Fisher Act.

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)

The student will write regularly and will participate in classroom analysis and criticism of manuscripts submitted. Individual editorial conferences. Prerequisites: Engl. 2070 and consent of instructor. May be repeated twice for maximum total credit of 12 units. (Y)

3075. † Intermediate Workshop in Poetry (4)

Practice in form and technique; weekly manuscripts, class criticism, editorial conferences. May be taken three times for credit. Prerequisite: Engl. 2070 or consent of instructor. (Y)

3691. Black Literature I (4)

A comprehensive history of Black writing in America from the beginnings to 1930. Cross-listed with Bl. St. 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 Bl. St. 3692. 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. (On demand)

3720. Renaissance Humanism (4)

The contribution of classical learning to the European Renaissance. Prerequisites: Engl. 1001 and junior standing. (On demand)

3730. The Classical Tradition (4)

The development of the classical spirit in Western literature, from the literature and philosophy of Greece and Rome to neo-classicism in France and England. Prerequisites: Engl. 1001 and junior standing. (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)

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. Readings in Ethnic Literatures (4)

Selected readings in the literatures of ethnic groups within and without the United States and of regions other than the United States and Western Europe. May be repeated once for credit when content is different. Prerequisite: Engl. 1001. (Y)

3790. Black Literature III (4)

A study of ancient and modern Black writers from Africa, the Mediterranean, and the Caribbean. Cross-listed with Bl. St. 3790. Prerequisites: Engl. 1001 and junior standing. (Y)

3801. The Drama (4)

Examination of principles of structure, modes of representation, and development of theme in Western Drama from the Greeks and Romans to the modern theater. Prerequisite: Engl. 1001. (Y)

† Before enrolling in this course, consult the instructor.

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. 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)

4151. Chaucer and His Milieu (4)

The Canterbury Tales and other poetry; selections from the works of other significant medieval English authors. Prerequisite: Engl. 2030 and 2040. (Y)

4152. Advanced Chaucer (4)

Intensive study of selected works of Chaucer, with related reading. Prerequisite: Engl. 4151. (Y)

4220. Studies in 17th-Century Literature (4)

Intensive study of selected authors or topics of the late Renaissance. Prerequisite: Engl. 2030 and 2040. (Y)

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. 2030 and 2040. (Y)

4252. Advanced Shakespeare (4)

Intensive study of selected plays of Shakespeare. Prerequisite: Engl. 4251. (Y)

4260. Milton (4)

A study of Milton's poetry and selected prose. Prerequisite: 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-Classical 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)

4590. Senior Seminar in Literature (4)

Intensive study of selected topics in British or American literature or language. Open to senior English majors only. (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. Senior Seminar in American Studies (4)

Interdisciplinary seminar on topics in American Civilization. The course is required for seniors in the American Studies Concentration. Any student may enroll. May be repeated for credit with consent of instructor. (Y)

4710. Biblical Literature (4)

The stories, poems, parables, sermons, and epistles in the development of monotheism. Prerequisites: Engl. 1001 and junior standing. (Y)

4711. Studies in Biblical Literature (4)

Selected topics in biblical literature. May be repeated for credit when content is different. Prerequisite: Engl. 1001. (Y)

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)

4731. Classical Literature I (4)

Readings in classical literature, including cultures of Ancient Greece and Rome, with emphasis on epic literature. Prerequisites: Engl. 1001 and junior standing. (Y)

4732. Classical Literature II (4)

Readings in classical literature, including cultures of Ancient Greece and Rome, with emphasis on dramatic literature. 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 résumés 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. 2030 and 2040. (Y)

4813. Restoration and 18th-Century Drama (4)

A history of the English drama from 1660 to 1800. Prerequisite: Engl. 2030 and 2040. (Y)

4816. Modern Drama (4)

A history of English and American drama since 1890; Shaw, Wilde, and later dramatists. Prerequisites: Engl. 1001 and junior standing. (Y)

4820. The Lyric (4)

The evolution of the short poem from its medieval origins to the present. Prerequisite: Engl. 2040 or consent of instructor. (Y)

† Before enrolling in this course, consult the instructor.

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)

4836. The Short Story (4)

Development of the modern short story in America and Europe. Prerequisites: Engl. 1001 and junior standing. (Y)

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)

4876. Current American and British Novel (4)

Development of the British and American novel since World War II. Prerequisites: Engl. 1001 and junior standing. (Y)

4900. Independent Study (1–4)**4920–4999. Directed Group Study (1–4)**

POST-BACCALAUREATE COURSES

5030. The Teaching of Composition (2)

Theories and problems of teaching composition. May be repeated; English B.A. credit is limited to 4 units, English M.A. credit is limited to 2 units. Prerequisite: Consent of instructor. (Y)

GRADUATE COURSES

6000. Seminar in Bibliography and Methods of Research (4)

Introduction to bibliographic aids and materials; textual criticism; preparation of scholarly writing.

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)

6010. Seminar in Theory and Practice of Literary Criticism (4)

A study of particular problems, methods, and theories of literary criticism, with emphasis on practical criticism.

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)

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)

6655. Seminar in 20th-Century British and American Literature (4)

Study of major works, authors, and literary topics of the 20th century. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: Engl. 4637 or 4816 or 4827 or 4833 or 4870 or 4876, or consent of instructor. (Y)

6900. Independent Study (1–4)**6910. Thesis (1–9)**

The writing of a thesis or equivalent work in fiction, verse, or drama. The student will register for thesis units normally over several quarters for a total of 9 units. Prerequisites: advancement to candidacy and an approved thesis proposal. (A)

6920–6999. Directed Group Study (1–4)

ENVIRONMENTAL STUDIES

(Department of Geography; School of Arts, Letters and Social Sciences)

B.A. Degree Major in Environmental Studies

This program is designed to provide an interdisciplinary and multidisciplinary overview of the environmental studies field coupled with an in-depth study of one discipline involved in environmental issues. The core requires course work in the sciences, social sciences, and art; and students may build options based on one or several related fields in these categories.

<i>Lower Division</i>	<i>Units</i>
Biol. 1000, 2030, 2040	13
Chem. 1100	5
E.Sc. 1001, 1002, 1400	10
Econ. 2301, 2302	8
Engl. 2020	4
Envt. 2000	4
Geog. 2100	4
Soc. 2000	4
Stat. 1000 or 2010 or 2120	5
Total Lower Division Units	57
<i>Upper Division</i>	
Anth. 3000 or Geog. 3000	4
Art 4081	5
Biol. 4130	4
Biol. 4145 or E.Sc. 3000	4-5
Econ. 4305	4
Envt. 3000, 4000	6
Geog. 3350, 3400, 3460	13
Pol.Sci. 4171, 4460	8
Total Upper Division Units	48-49
Total Units in Core	105-106
Electives *	20-30
Total Units in Major	125-135

Students completing this major will have completed G.E. Area requirements in Natural and Social Sciences. In addition, one course in Basic Subjects and one course in Humanities are satisfied by completion of the Environmental Studies Major core.

Geography Program of Electives (25-29 units)

- Geog. 2410. Map Reading and Interpretation (4)
- Geog. 3000. Resources and Man (4)
(if not taken in core)
- Geog. 3100. Descriptive and Regional Climatology (4)
- Geog. 3320. Agricultural Land Utilization (4)
- Geog. 3410. Aerial Photo Interpretation (4)
- Geog. 4120. Field Course in Biotic Geography (5)
or
- Geog. 4110. Field Course in Physical Geography (5)
- Geog. 4425. Remote Sensing of Earth Environments (4)

MINOR IN ENVIRONMENTAL STUDIES

The Minor in Environmental Studies is designed to encourage and enable undergraduate students enrolled in any subject-field major to organize their elective courses around a broad study of our environment and its problems from both a social and scientific perspective. Environmental Studies emphasize, but are not necessarily restricted to, the interactions among the physical, biological, societal, and aesthetic surroundings of man, and their consequences for all life forms. The administration of the program is currently handled by the Department of Geography.

* Consult individual departments about their approved patterns of electives.



The minor consists of 34–36 units arranged in an integrated pattern, as approved by an adviser. The core program in Environmental Studies (see p. 269) consists of three sequential courses (totalling 10 units) which are required of all students in the minor. The remaining 24–26 units of the minor are electives selected from the lists below.

I. Core Courses (10 units)

Envt. 2000. Introduction to Environmental Studies	4 units
Envt. 3000. Environmental Field Studies	2
Envt. 4000. Senior Seminar in Environmental Studies	4

II. Electives in Natural Science (8–10 units)

Two courses *outside the major department*, chosen from the following list, which will be expanded as new relevant courses develop.

Biol. 3110. Principles of Ecology	4 units
Biol. 4145. Problems and Practice of Conservation	4
E.Sc. 1001. Introduction to the Earth Sciences	4
E.Sc. 1002. Problems in Environmental Geology	2
E.Sc. 1201. Introduction to Oceanography	4
E.Sc. 1400. Introduction to Meteorology	4
E.Sc. 2101. Physical Geology	5
E.Sc. 3000. Conservation of Natural Resources	5
E.Sc. 3300. Principles of Geology	4
Geog. 2100. Principles of Physical Geography	4
Geog. 3100. Descriptive and Regional Climatology	4
Phys. 3650. Energy and Environment	4
Phys. 3700. Radiation and Man	4

III. Electives in Social Science (8 units)

Two courses *outside the major department*, chosen from the following list, which will be expanded as new relevant courses develop.

Anth. 3300. World Ethnography	4 units
Anth. 4450. Cultural Ecology	4
Econ. 4305. Seminar in Environmental Economics	4
Geog. 2300. Principles of Cultural Geography	4
Geog. 3000. Resources and Man	4
Geog. 3460. Evaluation of Environmental Impact Reports	4
Po.Sc. 4171. Public Policy and the Environment	4
Soc. 2200. Current Population Topics	4
Soc. 3100. Human Ecology	4

IV. Additional Electives (8 units)

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.

Anth. 4330. Culture Change	4 units
Art 3074. Modern Architecture	5
Art. 4063. The Modern Metropolis as Art	5
Biol. 3031. Nature Study	4
Biol. 3032. Nature Study	4
Biol. 4005. Insects and Man	4
Biol. 4010. Microbes and Man	4
Biol. 4020. Field Natural History	4
Biol. 4115. Marine Biology	4
Biol. 4130. Biogeography	4
Biol. 4230. Economic Plants	4
M.Sc. 4103. Marine Ecology	4
E.Sc. 3400. General Oceanography	5
E.Sc. 4151. Marine Meteorology	3
Geog. 2310. Economic Geography	4
Geog. 3320. Agricultural Land Utilization	4
Geog. 3330. Urban Geography: The Modern City	4
Geog. 4320. Geography of Energy Resources	4

Geog. 4350. Water Resources and their Management	4
Soc. 3200. Introduction to Population Analysis	4
Soc. 4450. Urban Sociology	4

COURSES

2000. Introduction to Environmental Studies (4)

Survey of important local, national, and world environmental problems, emphasizing a multidisciplinary approach. Four hrs. lect./disc. (F, W, Sp)

3000. Environmental Field Studies (2)

Designed to expose students to a variety of current environmental problems and concerns in the San Francisco Bay Area. Prerequisite or concurrent: Evt. 2000. Four hrs. field trips. (F, Sp)

4000. Senior Seminar in Environmental Studies (4)

Problem-oriented around selected topics of environmental concern, and requiring projects or reports. Prerequisites: Evt. 2000 and Evt. 3000; restricted to seniors completing the Concentration in Environmental Studies. (W)

FOREIGN LANGUAGES AND LITERATURES

(Department of Foreign Languages and Literatures; School of Arts, Letters
and Social Sciences)

Professors: Frauke Gries, Luis Ponce de Leon, Vincenzo Traversa (Chair), Elie R. Vidal, Winifred Weiss

Associate Professors: Yole Correa-Zoli, Elsa Garcia-Pandavenes, Galia Ham, Roland Heine, Gunter Mecke, Robert T. Neely, Yolanda Patterson, Rosa Reeves, Helen Schulak, Thomas Tomanek, Earl L. Walpole, Donald Warrin, R. Thomas Watson, Richard Woehr

Assistant Professors: Rodolfo Galan, Otis Handy

Graduate Adviser: Yolanda M. Patterson

PURPOSES

The Department of Foreign Language and Literatures at California State University, Hayward offers courses of study leading to a Bachelor of Arts degree in French, German (with options in German Language and Literature and in German Studies), and Spanish, as well as the Masters of Arts in French Language and Literature. Academic Minors are offered in French, German, Italian, Portuguese, Russian, and Spanish. Elementary and intermediate courses are offered also in Cantonese, Japanese, Latin and Swahili. Elementary courses are offered in Sign Language, emphasizing expressive and receptive skills and techniques for interpreting. 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.

With the growing involvement of the United States in international business and the increasingly multinational character of American society itself, the importance of foreign languages in nearly every kind of occupation is considerable. The degrees 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 and social work, travel and tourism.

Students may major or concentrate in other languages and literatures through the Special Major Program.

ADVANCED PLACEMENT, FOREIGN LANGUAGE

A student who has successfully completed the advanced-placement course in a foreign language in high school and has earned a score of "3," "4" or "5" on the Advanced Placement Examination* will be granted unit credit for three courses of a foreign language (12 units). A student who has completed the French literature exam with a score of "3" or above will receive 12 units of credit equivalent to FLa. 3121-2-3. A student who has completed the German literature examination with a score of "3" or above will receive 12 units of credit equivalent to FLa. 2203, 3210, and 3223. A student who has completed the Spanish literature exam with a score of "3" or above will receive 12 units of credit equivalent to FLa. 3400, 3422, and 3463. (No letter grade will be assigned or computed in the student's grade-point average.)

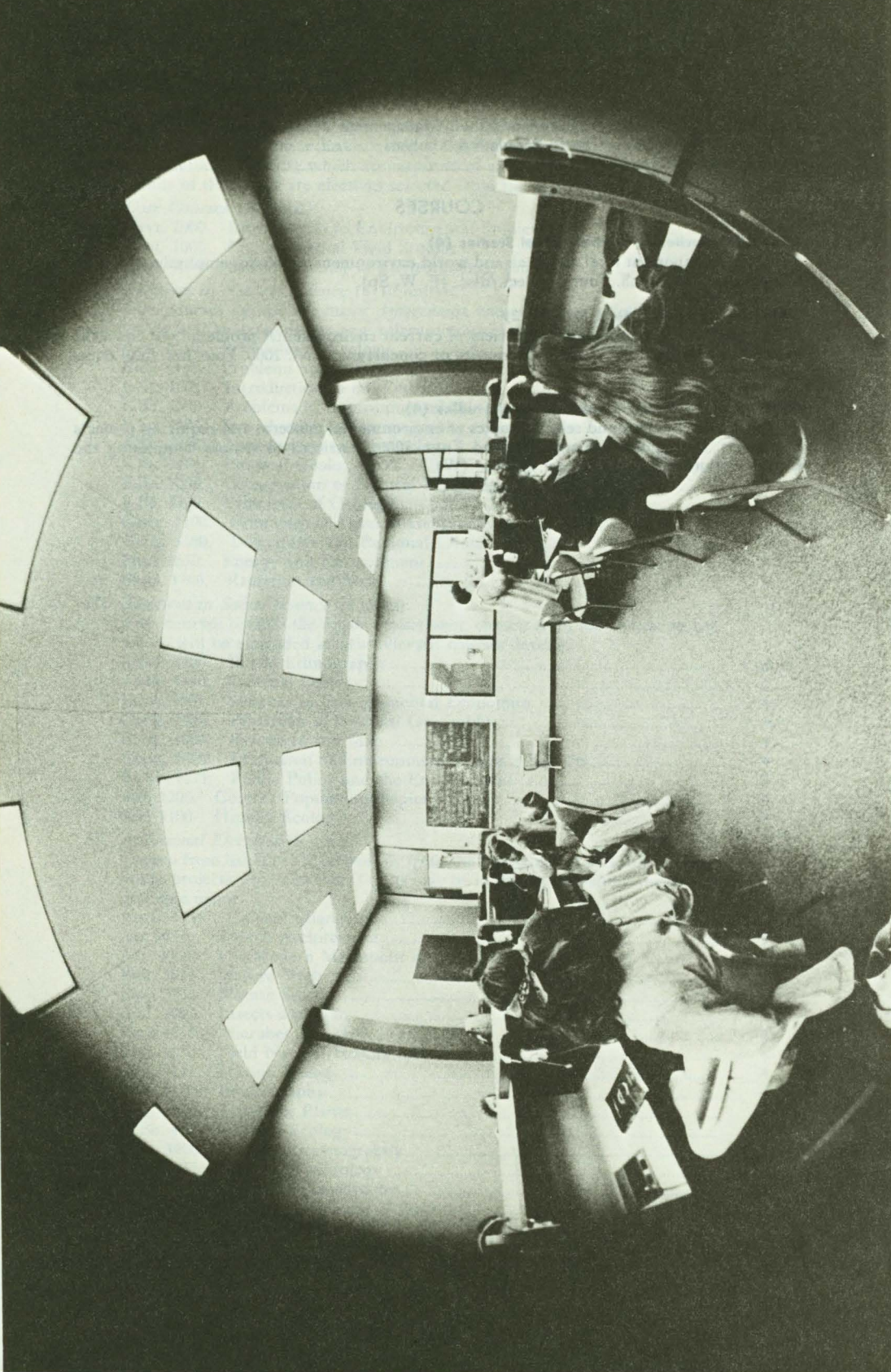
The French Major Leading to B.A. Degree

Requirements

1. Complete the 76-unit requirement in General Education required for B.A. and B.S. degrees.
2. Courses in French..... 68 units
 - A. Lower Division..... 24 units

FLa. 1101, -2, -3	(12)
FLa. 2101, -2, -3, or equivalent (FLa. 2110 is strongly recommended)	(12)

* This is prepared and offered by the College Entrance Examination Board.



B. Upper Division.....	44 units
FLan. 3101, 3102, 3111, 3112	(16)
Twenty-eight units from among the other upper division courses.....	(28)

Unit Summary

A. General Education.....	76
B. Major: courses in French	68
B.A. degree total.....	186

3. Further courses recommended
Acquisition of a reading knowledge in a second foreign language is strongly recommended.

Candidates for the Single Subject Teaching Credential in French should complete (a) a baccalaureate degree with a major in French, (b) the requirements for admission to teacher education, and (c) the required professional courses in teacher education, including FLan. 5080. Consult with advisers in French and the School of Education for details.

The French Minor

- In lower division, complete requirement under French major.
- In upper division, complete FLan. 3101, -2, FLan. 3112 and two courses from the following sequence: FLan. 3121, -2, -3.

Master of Arts in French

GENERAL INFORMATION

The Department of Foreign Languages and Literatures offers graduate study leading to the master of arts degree in French. The candidate is responsible for the fulfillment of the general requirements stated in this catalog as well as the specific departmental requirements stated here.

REQUIREMENTS FOR THE DEGREE

- To receive the degree a student must meet the following:
- complete 45 quarter units of upper-division and graduate courses in French and in approved fields; at least 28 units of these must be taken at the 6000 level in French;
 - pass a comprehensive examination in the French Language and French Literature.

Admission to the Program

- To be admitted to the program a student must have:
- an undergraduate G.P.A. of no less than 2.5 in all courses and a G.P.A. of no less than 3.0 in all French courses;
 - a bachelor's degree with a major in French *or*
 - the equivalent of a major in French at CSUH.

Classified Standing

- In order to attain classified status, a conditionally classified student must:
- have completed in residence at least 12 quarter units approved by his department even though these units are not necessarily applicable toward his degree requirements;
 - have been recommended for advancement to classified status by his department.

Advancement to Candidacy

- Before advancement to candidacy a student must:
- be a classified graduate student in good standing;

- have completed 12 quarter units considered applicable by the Foreign Language Department toward his or her degree program;
- have completed one course from the following: FLan. 6100 (Expository Analysis), FLan. 6101 (Seminar in Phonology and Morphology), FLan. 6102 (Explication de Textes).

The German Major Leading to a B.A. Degree

OPTION IN GERMAN LANGUAGE AND LITERATURE

Requirements

- Complete the 76-unit requirement in general education required for B.A. and B.S. degrees.
 - Courses in German..... 69 units
 - Lower Division..... 24 units
 - FLan. 1201, -2, -3, (12)
 - FLan 2201, -2, -3 or equivalent (12)
 - Upper Division..... 45 units
 - FLan. 3201, 3202, 3210 (12)
 - FLan 3221, 3222, 3223 (12)
- Twenty-one units in upper-division German courses. A maximum of two "German Courses in English" can count toward the major (21)

Unit Summary

A. General Education.....	76 units
B. Major: courses in German	69
B.A. degree total.....	186

3. Further courses recommended
Acquisition of a reading knowledge in a second foreign language is highly recommended.

OPTION IN GERMAN STUDIES

Requirements

- Complete the 76-unit requirement in general education required for the B.A. and B.S. degrees. Students who complete this option may apply up to 12 units of upper-division Social Science courses in satisfaction of the area requirement in Social Sciences (requirement I.B.3) and up to 12 units of upper-division Humanities courses in satisfaction of the requirement in Humanities (requirement I.B.1). If not used to fulfill the Social Science area requirement, the Social Science courses may be applied to electives (C2) and/or upper-division General Education. (See requirement 3 for the major, below.)
- Courses in German..... 50 units
 - Lower Division..... 24 units
 - FLan. 1201, -2, -3 (12)
 - FLan. 2201, -2, -3 or equivalent (12)
 - Upper Division..... 26 units
 - Complete at least 26 units in upper division German courses. A maximum of four "German Courses in English" (see Description of Courses) can count toward the major. The sequence FLan. 3201, -2 is highly recommended.
- Courses in supporting fields 24 units

Complete at least 24 units in upper division courses outside the German Division, but in the Central European field, to be planned and presented for approval to the German Division by the student. The aim of this program, which allows maximum

flexibility, is to allow the student to plan a more broadly based major. The student can combine the study of German with such fields as art history, comparative literature, economics, history, musicology, philosophy, political science, etc.

Unit Summary

Major: courses in German	50
courses in supporting fields.....	24
total	74

4. Further courses recommended

Acquisition of a reading knowledge in a second foreign language is highly recommended.

Candidates for the Single Subject Teaching Credential in German should complete: (a) a baccalaureate degree with a major in German including at least 36 units in upper division German, (b) the requirements for admission to teacher education, and (c) the required professional courses in teacher education, including FLaN. 5080. Consult with advisers in German and the School of Education for details.

The German Minor

1. In lower division, complete requirement under German major.
2. Complete 24 units in upper division German courses, including FLaN. 3201, -2, FLaN. 3210. Courses from the series FLaN 3221, -2, -3 are highly recommended.

The Italian Minor

	<i>Units</i>
FLan. 1301. Elementary Italian	4
FLan. 1302. Elementary Italian	4
FLan. 1303. Elementary Italian	4
FLan. 2301. Intermediate Italian	4
FLan. 2302. Intermediate Italian	4
FLan. 2303. Intermediate Italian	4
FLan. 3301. Advanced Italian Grammar and Composition	4
FLan. 3302. Advanced Italian Conversation	4
FLan. 3303. Italian Culture and Civilization, or	
FLan. 3304. Contemporary Italy	4
FLan. 3305. Studies in Italian Literature.....	4
FLan. 3306. Studies in Italian Literature.....	4
Total Units Required	44

The Portuguese Minor

	<i>Units</i>
FLan. 1851. Elementary Portuguese	4
FLan. 1852. Elementary Portuguese	4
FLan. 1853. Elementary Portuguese	4
FLan. 2851. Intermediate Portuguese	4
FLan. 2852. Intermediate Portuguese	4
FLan. 2853. Intermediate Portuguese	4
FLan. 3851. Portuguese Composition	4
FLan. 3852. Portuguese Composition	4
FLan. 3860. Portuguese Culture and Civilization (in English) or	
FLan. 3879. Modern Brazilian Literature in English Translation.....	4
FLan. 3861. Introduction to Portuguese Literature.....	4
FLan. 3871. Introduction to Brazilian Literature	4
Total Units Required	44

The Russian Minor

Purpose: The objective of the Russian Minor is to provide a basic but solid foundation in Russian Language and Culture. This knowledge is useful in many disciplines and professions and it can lead to a deeper study of Russian civilization. Students wishing to pursue such a program can do so through the Special Major. Courses dealing with Russian culture and society are offered, on this campus, by the departments of Anthropology, Economics, Foreign Languages and Literatures, Geography, Political Science, and History. In addition, as a result of the recent agreement between this campus and the University of California at Berkeley, eligible students may now attend various courses on Russian literature and culture offered by the Department of Slavic Languages and Literatures at Berkeley.

Requirements:

FLan. 1501. Elementary Russian	4
FLan. 1502. Elementary Russian	4
FLan. 1503. Elementary Russian	4
FLan. 2501. Intermediate Russian	4
FLan. 2502. Intermediate Russian	4
FLan. 2503. Intermediate Russian	4
	24

FLan. 3504. Advanced Russian *	12
Listening and Speaking (4)	
Composition and Style (4)	
Translating and Reading (4)	
FLan. 3587. Topics in Russian Literature and Culture in English *	
or	
Suggested electives at the University of California at Berkeley **	8
Total Units Required	44

The Spanish Major Leading to a B.A. Degree

Requirements

1. Complete the 76-unit requirement in General Education required for B.A. and B.S. degrees.
2. Courses in Spanish 80 units
 - A. Lower Division..... 24 units

FLan. 1401, -2, -3. Elementary Spanish.....	12
FLan. 2401, -2, -3. Intermediate Spanish	12
FLan. 2410. Spanish Conversation (4) (strongly recommended)	
 - B. Upper Division..... 56 units
 1. FLan. 3401, -2, -3. Advanced Composition and Syntax 12
 - FLan. 3404. Creative Writing (can be substituted for one quarter of the sequence FLan. 3401, -2, -3)
 - Two courses selected from the following group:

FLan. 3411, -12, -13. Spanish Linguistics, Phonetics, History of the Spanish Language	8
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 2. Twelve units of Spanish American Literature representing different historical periods. One course each should be selected from three of the following four categories:
 - a. FLan. 3461

* May be repeated for credit if subject matter is different.

** The following courses are available to CSUH students minoring in Russian through the cooperative program with the University of California, Berkeley: Slavic Languages and Literatures 104A-B-C, Russian Composition and Style; 125A-B, Introduction to Descriptive Russian Grammar; 128A-B, Readings in Russian Literature; 133A-B-C, the Russian Novel and Its Relations to Western European Literatures; 134B, Tolstoy; 134, Chekhov; 134D, Turgenev; 134F, Pushkin; 134G, Gogol; 135, Russian Drama from the 17th Century to the 20th.

- b. FLan, 3462, 4495 (when 19th century is emphasized)
- c. FLan, 3463, 4461, 4471, 4491, 4494, 4495 (when 20th century is emphasized)
- d. FLan. 3495 12
- 3. Twelve units of Spanish Peninsular Literature representing different historical periods. One course each should be selected from three of the following four-categories:
 - a. FLan. 3418
 - b. FLan. 3419
 - c. FLan. 3420, 3421, 4458
 - d. FLan. 3422, 4459, 4460 12
- 4. Twelve additional units should be selected from among all upper-division literature courses including FLan. 3400. A maximum of eight units of literature may be replaced by two of the following upper-division language courses: FLan. 3404, -5, -06 and the one remaining course of the series FLan. 3411, -12, -13. (NOTE: Courses numbered FLan. 4458, -59, -60 and 4461, -94, -95 may be repeated twice as content changes. If repeated, the courses may be applied to more than one category of requirements: Groups 2 and 4 or Groups 3 and 4 12

Students are expected to consult with Spanish Division advisers in order to assure a well-balanced program of upper-division courses.

Unit Summary

A. General Education	76
B. Major: courses in Spanish	80
B.A. degree total.....	186
3. Further courses recommended	
Proficiency in another foreign language, both audio-lingual and reading, is strongly recommended.	
4. Candidates for the Single Subject Teaching Credential in Spanish should complete (a) a baccalaureate degree with a major in Spanish and (b) the required professional courses in teacher education, including FLan. 5080. Consult with the Foreign Language Department adviser in Teacher Education and with the School of Education for details.	

The Spanish Minor

- 1. Lower Division: As outlined above for the Spanish major.
- 2. Upper Division 24 units
 - A. FLan. 3401, -2. -3. Advanced Composition and Syntax 12
(FLan. 3404. Creative Writing can be substituted for one quarter of the sequence FLan 3401, -2, -3.)
 - B. FLan. 3412. Spanish Phonetics 4
 - C. One course selected from each of the two following areas:
 - Spanish Peninsular literature:
 - FLan. 3418, -19, -20, -21, -22; FLan. 4458, -59, -60. 4
 - Spanish-American literature:
 - FLan. 3461, -62, -63, -95; FLan. 4461, -71, -91, -94, -95. 4
 - FLan. 3400 may replace *one* of the above required courses.

Foreign Languages and Literatures Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)

- Area IV
 - 12 units from any two categories and all in a single language.
 - a) Any 1000-2000 level course (except 1000 level Reading in Translation courses)
 - b) Any literature in translation course
 - c) A culture and civilization course
 - d) Any other individual course which fits the student's thematic objectives

Area V
16-20 units selected from any 2000-5000 level courses in a single language.

Liberal Arts Track
Credential Track (path for students seeking credential after graduation)

Area I
8 units in a single language (except 1000 level Reading in Translation courses)

- Area IV
 - 12 units from any two categories and all in a single language.
 - a) Any 1000-2000 level course (except 1000 level Reading in Translation courses)
 - b) Any literature in translation course
 - c) A culture and civilization course
 - d) Any other individual course which fits the student's thematic objectives

Area V
23-32 units approved in advance by an adviser in Foreign Languages and Literatures and based upon the interests and objectives of the student. Only one course taught in translation and one practical language course may be applied.

Single Subject Waiver Programs: Foreign Languages

The majors in French, German, and Spanish have been approved by the State Commission for Teacher Preparation and Licensing as waiver programs for the Foreign Language Single Subjects.

GENERAL COURSES

1920-99. Directed Group Study (1-4)

3710. Medieval Literature (5)
(Same as Engl. 3710) (F)

3720. Renaissance Humanism (5)
(Same as Engl. 3720) (W)

3730. The Classical Tradition (5)
(Same as Engl. 3730) (Sp)

4900. Independent Study (1-4)

4920-99. Directed Group Study (1-4)

5080. Methods in the Teaching of Foreign Languages (3)
Methods, practice and techniques in the teaching of modern foreign languages on the secondary level. Particular stress given to the audio-lingual and audio-visual approach. Prerequisites: competence in at least one foreign language and consent of instructor. (Y)

5900. Independent Study (1-4)

5920-99. Directed Group Study (1-4)

6900. Independent Study (1-4)

6920-99. Directed Group Study (1-4)

FOREIGN LITERATURE COURSES IN ENGLISH TRANSLATION

- 3185. French Literature in English Translation (4)**
(See description under French Courses.)
- 3281. Germany Today (4)**
(See description under German Courses.)
- 3283. Kafka in English (4)**
(See description under German Courses.)
- 3284. Brecht in English (4)**
(See description under German Courses.)
- 3286. German Activist in English (4)**
(See description under German Courses.)
- 3287. German Literature East and West in English (4)**
(See description under German Courses.)
- 3587. Topics in Russian Literature and Culture in English (4)**
(See description under Russian Courses.)
- 3879. Modern Brazilian Literature in English Translation (4)**
(See description under Portuguese Courses.)

CHINESE COURSES

- 1601. Elementary Cantonese (4)**
Introduction to the Cantonese Chinese language with special emphasis on the spoken language through new innovative techniques.
- 1602. Elementary Cantonese (4)**
Continuation of FLan. 1601. Prerequisite: FLan. 1601 or consent of instructor.
- 1603. Elementary Cantonese (4)**
Continuation of FLan. 1602. Prerequisite: FLan. 1602 or consent of instructor.

UNDERGRADUATE FRENCH COURSES

NOTE: Students may be admitted to any of the following courses by consent of instructor.

- 1101. Elementary French (4)**
Introduction to the reading, writing, understanding, and speaking of French. (Y)
- 1102. Elementary French (4)**
Continuation of FLan. 1101. Prerequisite: FLan. 1101. (Y)
- 1103. Elementary French (4)**
Continuation of FLan. 1102. Prerequisite: FLan. 1102. (Y)
- 1104. French Reading I (4)**
Course designed to enable student to acquire a reading knowledge of the French language. Recognitional grammar-vocabulary. Reading of texts. Not open to foreign language majors. (F)
- 1105. French Reading II (4)**
Continuation of FLan. 1104. Prerequisite: FLan. 1104 or consent of instructor. (W)
- 1106. French Reading III (4)**
Continuation of FLan. 1105. Prerequisite: FLan. 1105 or consent of instructor. (Sp)
- 2101. Intermediate French (4)**
Continuation of FLan. 1103, with increased emphasis on the reading and writing of French. Prerequisite: FLan. 1103. (F)

- 2102. Intermediate French (4)**
Continuation of FLan. 2101. Prerequisite: FLan. 2101. (W)
- 2103. Intermediate French (4)**
Continuation of FLan. 2102. Prerequisite: FLan. 2102. (Sp)
- 2110. French Conversation (4)**
Emphasis on the spoken language studied through texts. Strongly recommended for majors. Prerequisite: FLan. 2103 or consent of instructor. (Y)
- 3101. French Composition (4)**
Written French and formal grammar. Prerequisite: FLan. 2103. (Y)
- 3102. Advanced French Composition (4)**
Continuation of FLan. 3101. Prerequisite: FLan. 3101. (Y)
- 3103. Advanced French Composition (4)**
Continuation of FLan. 3102. Prerequisite: FLan. 3102.
- 3110. French Conversation (4)**
The spoken language studied and practiced. For students with a good academic background and/or literary level beyond FLan. 3102 and 3121. Prerequisite: FLan. 3102 and FLan. 3121, or consent of instructor. (Y)
- 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: FLan. 3102 or consent of instructor. (F)
- 3112. French Phonetics (4)**
The fundamentals of French pronunciation and intonation through a study of the phonetic structure of the language. Attention given to each student's difficulties. Individual laboratory work. Prerequisite: FLan. 3111 or consent of instructor.
- 3121. Introduction to Literary Studies: Prose (4)**
Background and critical appraisal of essential French prose works, from the 16th to the 20th centuries. Prerequisite: FLan. 3102 or consent of instructor. (Tent. F)
- 3122. Introduction to Literary Studies: Poetry (4)**
Background and critical appraisal of important poems, from the 12th to the 20th centuries. Prerequisite: FLan. 3102 or consent of instructor. (Tent. W)
- 3123. Introduction to Literary Studies: Drama (4)**
Background and critical appraisal of important plays from the 12th to the 20th centuries. Prerequisite: FLan. 3102 or consent of the instructor. (Tent. Sp)
- 3125. French Dramatic Performance (4)**
Preparation of scenes from French theatre and of a Guignol puppet show for performance. Prerequisite: FLan. 1102 or equivalent or consent of instructor. (Y)
- 3142. French Renaissance Literature (4)**
Sixteenth century French literature with emphasis on Rabelais, Montaigne and the Pleiade. Prerequisite: FLan. 3121 or 3122 or 3123 or consent of instructor. (Tent. Sp)
- 3151. 17th Century French Theatre: The Tragedy (4)**
French classical tragedy, with detailed analysis of selected plays of Corneille and Racine. Prerequisite: FLan. 3123 or consent of instructor. (Tent. F)
- 3152. 17th Century French Theatre: The Comedy (4)**
The development of comedy, with detailed analysis of selected plays of Molière, his predecessors and contemporaries. Prerequisite: FLan. 3123 or consent of instructor. (Tent. W)

3153. 17th Century French Prose and Poetry (4)

Readings in French prose and poetry from Malherbe to Fenelon, with detailed analysis of selected texts of Descartes, Pascal, La Fontaine, Boileau, Bossuet, La Rochefoucauld, La Bruyère and others. Prerequisite: FLan. 3121 or 3122 or consent of instructor. (Y)

3172. Realism (4)

Selected works of Stendhal, Balzac, and Flaubert. Prerequisite: FLan. 3121 or consent of instructor. (Tent. W)

3181. Modern Poetry (4)

French poetry of the 19th and 20th Centuries from Nerval to Apollinaire, including poets such as Baudelaire, Mallarmé, Rimbaud and Valéry. Prerequisite: FLan. 3122. (Y)

3182. The Modern French Novel (4)

Development of the novel as exemplified by the works of Gide, Proust, Sartre, Camus and the "nouveau roman." Prerequisite: FLan. 3121 or consent of instructor. (Tent. W)

3183. 20th Century French Theatre (4)

The plays of Claudel, Giraudoux, Anouilh, Sartre, Beckett, Ionesco, and Genêt. Prerequisite: FLan. 3123 or consent of instructor. (Tent. Sp)

3185. 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. (Tent. Y)

4104. Studies in 18th Century French Literature (4)

Intensive study of a specific author, genre or movement. Prerequisite: FLan. 3161 or 3162 or 3163 or consent of instructor. (Tent. F)

4110. History of the French Language (4)

Historical survey of the development of the French language. Prerequisite: FLan. 3111 or consent of instructor. (Y)

4150. 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: FLan. 2103 or consent of instructor. (Y)

GRADUATE FRENCH COURSES**6100. Principles of Expository Analysis (4)**

Expository writing and practice in preparing written reports and scholarly papers at the graduate level. Prerequisite: FLan. 3102 or consent of instructor. (W)

6102. Advanced Explication de Textes (4)

Advanced study and critical interpretation of French works according to the method used in French universities. The texts chosen will extend from the 16th to the 20th centuries. Prerequisites: FLan. 3130 or equivalent and one literature. (F)

*** 6110. Seminar in Medieval French Literature (4)**

Study of selected major works, authors, or genres, with readings in Old French: from the *Chanson de Roland* to Villon. Prerequisite: FLan. 3121 or consent of instructor. (Y)

*** 6120. Seminar in French Renaissance Literature (4)**

Study of French literature in the Renaissance through major authors such as Rabelais, DuBellay, Montaigne, Brantôme, and Calvin. Prerequisites: FLan. 3121 or 3122, or consent of instructor. (Y)

* May be repeated for credit if subject matter is different.

*** 6140. Seminar in 18th Century French Literature (4)**

Studies in the history of ideas and literary principles of the Age of Enlightenment in authors such as Montesquieu, Voltaire, Rousseau, and Diderot. Prerequisite: FLan. 3161 or consent of instructor. (Y)

*** 6150. Seminar in 19th Century French Literature (4)**

Specific aspects of Romanticism, Realism, Naturalism. Study in depth of selected major authors and their influence on literary currents of the century, such as Hugo, Stendhal, Flaubert, Baudelaire, Zola, and others. Prerequisites: FLan. 3171, or 3172, or 3173, or consent of instructor. (Y)

*** 6160. Seminar in 20th Century French Literature (4)**

An intensive study of contemporary literary trends as reflected in the works of such authors as Proust, Gide, Camus, Sartre, and others. Prerequisites: FLan. 3181, or 3181, or 3183, or consent of instructor. (Y)

*** 6170. Seminar in Literary Themes and Figures (4)**

A study of selected themes in French literature cutting across chronological lines, such as Don Juan, Laughter, Education, the Artist in society, the Intellectual Hero. Prerequisite: FLan. 6102 or consent of instructor. (Y)

6900. Independent Study (1-4)

(Y)

6920-6999. Directed Group Study (1-4)

(Y)

GERMAN COURSES**1201. Elementary German (4) ****

An audio-lingual approach to German, designed to give students skill in understanding, speaking, reading and writing the language. (Y)

1202. Elementary German (4) **

Continuation of FLan. 1201. Prerequisite: FLan 1201. (Y)

1203. Elementary German (4) **

Continuation of FLan. 1202. Prerequisite: FLan. 1202 (Y)

1204. German Reading I (4)

Course designed to enable student to acquire a reading knowledge of the German language. Recognitional grammar-vocabulary. Reading of texts. Not open to foreign language majors. (F)

1205. German Reading II (4)

Continuation of FLan. 1204. Prerequisite: FLan. 1204 or consent of instructor. (W)

1206. German Reading III (4)

Continuation of FLan. 1205. Prerequisite: FLan. 1205 or consent of instructor. (Sp)

2201. Intermediate German (4)

A continuation of FLan. 1203 with increased emphasis on audio-lingual facility, written composition and collateral reading. Prerequisite: FLan. 1203. (F)

2202. Intermediate German (4)

Continuation of FLan. 2201. Prerequisite: FLan. 2201. (W)

2203. Intermediate German (4)

Continuation of FLan. 2202. Prerequisite: FLan. 2202 (Sp)

* May be repeated for credit if subject matter is different.

** A self-paced, individualized program of instruction is also provided in these courses.

3201. German Composition (4)

Advanced grammar and structure of the language. Prerequisite: FLan. 2203 or consent of instructor. (Y)

3202. German Composition (4)

Continuation of FLan. 3201. Prerequisite: FLan. 3201 or consent of instructor. (Y)

3210. Practice in Listening and Speaking (4)

Listening to original recorded material such as radio programs, plays and lectures. Discussion and oral presentation of assigned topics. Prerequisite: FLan. 2203 or consent of instructor. (Sp)

3221. Introduction to German Literature I (4)

An introduction to German literature from the Age of Enlightenment to the *Klassik*. Prerequisite: FLan. 2203 or consent of instructor. (Tent. F)

3222. Introduction to German Literature II (4)

An introduction to German literature from the Age of Romanticism to Realism. Prerequisite: FLan. 3221 or consent of instructor. (Tent. W)

3223. Introduction to German Literature III (4)

An introduction to German literature: The Modern Period. Prerequisite: FLan. 3222 or consent of instructor. (Tent. Sp)

3224. German Culture and Civilization (4)

A general introduction to German culture and civilization, with emphasis on the major social, historical and literary periods of Germany. Prerequisite: FLan. 3210 or consent of instructor. (Y)

3253. Modern and Contemporary Drama (4)

From Hauptmann to Brecht and Dürrenmatt. Prerequisite: FLan 3223 or consent of instructor. (Y)

3262. Modern and Contemporary German Fiction (4)

Kafka, Mann and present-day authors. Prerequisite: FLan. 3223 or consent of instructor. (Y)

3263. The German Novella (4)

A critical survey of one of the most important literary forms in German literature. The course will cover the works of Goethe, Hoffman, Mörike, Eichendorff, Storm, Göss and others. Prerequisite: FLan. 3221 or consent of instructor. (Y)

3271. Romanticism (4)

The prose, poetry and drama of the early 19th century, with emphasis on Schlegel, Tieck, Hoffman and Eichendorff. Prerequisite: FLan. 3221 or 3222 or 3223, or consent of instructor. (Y)

3281. Germany Today (in English) (4)

Lectures and reading on cultural, social and political trends in German-speaking countries; emphasis on West and East Germany. Open to all students. (Y)

3283. Kafka in English (4)

An interdisciplinary study of Kafka and his influence on the modern European scene emphasizing literary, philosophical, historical and sociological backgrounds. (Sp)

3284. Brecht in English (4)

An interdisciplinary study of Brecht's plays and dramatic theory with emphasis on literary, philosophical, historical and sociological backgrounds. (W)

3286. German Activist in English (4)

An interdisciplinary study and analysis of political consciousness on hand of selected literary texts, emphasizing especially the philosophical, historical and sociological aspects. (F)

3287. German Literature East and West in English (4)

An interdisciplinary study of representative works with emphasis on separate cultural and sociological developments in East and West Germany. (W)

3288. Three Modern German Writers, Mann, Hesse, Frisch (in English) (4)

An in-depth study of their selected works, spanning the period from Pre-World War I to the present, e.g. *The Magic Mountain*, *Steppenwolf*, *Siddharta*, *Homo Faber*. Four hrs. lect./disc. (Y)

4207. Studies in the 20th Century German Literature (4)

Intensive study of a specific author, genre or movement. Specific topic to be announced. Prerequisite: FLan. 3221, 3222, 3223 or consent of instructor. May be repeated for credit if subject matter is different. (Y)

4208. Studies in German Enlightenment and Classicism (4)

Intensive study of a specific author, genre or movement. Specific topic to be announced. Prerequisite: FLan. 3221 or consent of instructor. May be repeated for credit if subject matter is different. (Y)

4209. Studies in German Romanticism and Realism (4)

Intensive study of a specific author, genre or movement. Specific topic to be announced. Prerequisite: FLan. 3222 or consent of instructor. May be repeated for credit if subject matter is different. (Y)

ITALIAN COURSES

1301. Elementary Italian (4)

Introduction to the reading, writing, understanding, and speaking of Italian. (F)

1302. Elementary Italian (4)

Continuation of FLan. 1301. Prerequisite: FLan. 1301 or equivalent. (W)

1303. Elementary Italian (4)

Continuation of FLan. 1302. Prerequisite: FLan. 1302 or equivalent. (Sp)

2301. Intermediate Italian (4)

Continuation of FLan. 1303, with increased emphasis on the reading and writing of Italian. Prerequisite: FLan. 1303 or equivalent. (Y)

2302. Intermediate Italian (4)

Continuation of FLan. 2301. Prerequisite: FLan. 2301 or equivalent. (Y)

2303. Intermediate Italian (4)

Continuation of FLan. 2302. Prerequisite: FLan. 2302 or equivalent. (Y)

3301. Advanced Italian Grammar and Composition (4)

Writing in Italian, including the study of grammar and style. Short essays and other practical exercises in composition. Prerequisite: FLan. 2303 or equivalent and consent of instructor.

3302. Advanced Italian Conversation (4)

Oral presentation and group discussions in Italian on the basis of readings from essays, newspapers, plays, and tape-recorded material regarding Italian life and thought. Prerequisite: FLan. 2303 or equivalent.

3303. Italian Culture and Civilization (4)

Highlights of the culture and civilization of Italy as reflected in the principal literary and linguistic examples. Prerequisite: FLan. 2303 or equivalent.

3304. Contemporary Italy (4)

Discussions and readings on contemporary Italian life through its literature and other sources. Prerequisite: FLan. 2303 or equivalent.

3305. Studies in Italian Literature (4)

Presentation and analysis of significant trends and writers of Medieval and Renaissance Italian literature. Prerequisite: FLan. 2303 or consent of instructor.

3306. Studies in Italian Literature (4)

Presentation and analysis of representative poets and novelists of modern and contemporary Italian literature considered in relationship with their literary trends. Prerequisite: FLan. 2303 or consent of instructor.

JAPANESE COURSES**1651. Elementary Japanese I (4)**

Introduction to the Japanese language with emphasis on the spoken language studied through texts.

1652. Elementary Japanese II (4)

Continuation of FLan. 1651. Prerequisite: FLan. 1651 or consent of instructor.

1653. Elementary Japanese III (4)

Continuation of FLan. 1652. Prerequisite: FLan. 1652 or consent of instructor.

LATIN COURSES**1701. Elementary Latin (4)**

Fundamentals of grammar and the reading of elementary texts. Reading is begun as early as possible and continued in conjunction with grammatical study. (F)

1702. Elementary Latin (4)

Continuation of FLan. 1701. Prerequisite: FLan. 1701 or consent of instructor. (W)

1703. Elementary Latin (4)

Continuation of FLan. 1702. Prerequisite: FLan. 1702 or consent of instructor. (Sp)

2701. Intermediate Latin (4)

Reading of selected works and systematic review of grammar. Prerequisite: FLan. 1703 or consent of instructor. (Tent. F)

2702. Intermediate Latin (4)

Continuation of FLan. 2701. Prerequisite: FLan. 2701 or consent of instructor. (Tent. W)

2703. Intermediate Latin (4)

Continuation of FLan. 2702. Prerequisite: FLan. 2702 or consent of instructor. (Tent. Sp)

PORTUGUESE COURSES**1851. Elementary Portuguese (4)**

An audio-lingual approach to Portuguese, designed to give students skill in understanding, speaking, reading and writing the language. (F)

1852. Elementary Portuguese (4)

Continuation of FLan. 1851. Prerequisite: FLan. 1851 or equivalent. (W)

1853. Elementary Portuguese (4)

Continuation of FLan. 1852. Prerequisite: FLan. 1852 or equivalent. (Sp)

2851. Intermediate Portuguese (4)

A continuation of FLan. 1853 with increased emphasis on audio-lingual facility, written composition and collateral reading. Prerequisite: FLan. 1853 or equivalent. (F)

2852. Intermediate Portuguese (4)

Continuation of FLan. 2851. Prerequisite: FLan. 2851 or equivalent. (W)

2853. Intermediate Portuguese (4)

Continuation of FLan. 2852. Prerequisite: FLan. 2852 or equivalent. (Sp)

3851. Portuguese Grammar and Composition I (4)

Advanced grammar and structure applied to composition in the language. Prerequisite: FLan. 2853 or consent of instructor. (Alt. Y)

3852. Portuguese Grammar and Composition II (4)

Continuation of FLan. 3851. Prerequisite: FLan. 3851 or consent of instructor. (Alt. Y)

3855. Practical Portuguese: Field Service (2)

Students will be assisting in the University and/or in the Community as tutors, translators and teaching aides. One hour a week with the instructor and two hours of field project required. Prerequisite: FLan 2853 or equivalent and consent of instructor. May be repeated once for credit. (Y)

3860. Portuguese Culture and Civilization (in English) (4)

A study of Portuguese culture as seen through literary and linguistic sources. (Alt. Y)

3861. Introduction to Portuguese Literature (4)

The theory and expression of Portuguese literature as seen through its major writers. Prerequisite: FLan. 2853 or consent of instructor. (Alt. Y)

3871. Introduction to Brazilian Literature (4)

The theory and expression of Brazilian literature as seen through its major writers. Prerequisite: FLan. 2853 or consent of instructor. (Alt. Y)

3879. Modern Brazilian Literature in English Translation (4)

An interdisciplinary study of major authors and movements in twentieth-century Brazilian literature, emphasizing literary, philosophical, historical, and sociological backgrounds. (Open to all students. Those taking this course as part of their requirement for a Portuguese minor must do the outside work in Portuguese.) (Alt. Y)

RUSSIAN COURSES**1501. Elementary Russian (4)**

An audio-lingual approach to Russian, designed to give students skill in understanding, speaking, reading and writing the language. (F)

1502. Elementary Russian (4)

Continuation of FLan. 1501. Prerequisite: FLan. 1501. (W)

1503. Elementary Russian (4)

Continuation of FLan. 1502. Prerequisite: FLan. 1502. (Sp)

2501. Intermediate Russian (4)

Continuation of FLan. 1503, with increased emphasis in the speaking, reading and writing of the language. Prerequisite: FLan. 1503. (Tent. F)

2502. Intermediate Russian (4)

Continuation of FLan. 2501. Prerequisite: FLan. 2501. (Tent. W)

2503. Intermediate Russian (4)

Continuation of FLan. 2502. Prerequisite: FLan. 2502. (Tent. Y)

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: FLan. 2503 or consent of instructor. Four hrs. lect./disc. (Y)

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. Four hrs. lect./disc. (Y)

SIGN LANGUAGE COURSES

1901. Elementary Sign Language I (4)

Basic techniques of fingerspelling and signs of American Sign Language, emphasizing expressive and receptive skills and techniques for interpreting. Includes intensive practice and individual evaluation. (F)

1902. Elementary Sign Language II (4)

Continuation of FLan. 1901. Prerequisite: FLan. 1901 or consent of instructor. (W)

1903. Elementary Sign Language III (4)

Continuation of FLan. 1902. Prerequisite: FLan. 1902 or consent of instructor. (Sp)

2900. Sign Song (2)

The art of American Sign Language in song and poetry, emphasis on interpretation of language and mood from English. Prerequisite: FLan. 1903 or consent of instructor. (Y)

2901. Intermediate Sign Language I (4)

Continuation of FLan. 1903 with increased emphasis on translation of idioms from Ameslan and English. Emphasis on reverse and receptive skills. Prerequisite: FLan. 1903 or consent of instructor. (F)

2902. Intermediate Sign Language II (4)

Continuation of FLan. 2901. Prerequisite: FLan. 2901 or consent of instructor. (W)

2903. Intermediate Sign Language III (4)

Continuation of FLan. 2902 or consent of instructor. (Sp)

3901. Introduction of Interpreting for the Deaf (4)

An introduction to the theories and practice of interpreting for the deaf in specialized situations, e.g., medical, educational, legal, etc. Practice is provided and theory studied in each area. Extensive use of both audio and video materials. Prerequisite: Proficiency in Sign Language (FLan. 2903 or equivalent) or consent of instructor. (Y)

SPANISH COURSES

1401. Elementary Spanish (4)

An audio-lingual approach to Spanish, designed to give students skill in understanding, speaking, reading and writing the language. (A)

1402. Elementary Spanish (4)

Continuation of FLan. 1401. Prerequisite: FLan. 1401 or equivalent. (A)

1403. Elementary Spanish (4)

Continuation of FLan. 1402. Prerequisite: FLan. 1402 or equivalent. (A)

1404. Spanish Reading and Translation I (4)

Course designed to enable student to acquire a reading knowledge of the Spanish language. Recognitional grammar-vocabulary. Reading of texts. Not open to foreign language majors. Prerequisite: none. (F)

1405. Spanish Reading and Translation II (4)

Continuation of FLan. 1404. Prerequisite: FLan. 1404 or consent of instructor. (W)

1406. Spanish Reading and Translation III (4)

Continuation of FLan. 1405. Prerequisite: FLan. 1405 or consent of instructor. (Sp)

1407. Elementary Spanish for Chicanos (4)

For bi-lingual students who have some familiarity with spoken Spanish but little experience with the written language. Emphasis is on vocabulary building, gaining confidence in speaking, and learning control of the written language. Reading materials are taken principally from Mexican and Mexican-American sources. Particular attention given to linguistic characteristics of the Spanish of the Southwest. Prerequisite: Consent of instructor. (F)

2401. Intermediate Spanish (4)

A continuation of FLan. 1403 with increased emphasis on audio-lingual facility, written composition and collateral reading. Prerequisite: FLan. 1403. (Y)

2402. Intermediate Spanish (4)

Continuation of FLan. 2401. Prerequisite: FLan. 2401. (Y)

2403. Intermediate Spanish (4)

Continuation of FLan. 2402. Prerequisite: FLan. 2402. (Y)

2408. Intermediate Spanish for Chicanos, I (4)

A continuation of FLan. 1407. Prerequisite: FLan. 1407 or consent of instructor. (W)

2410. Spanish Conversation (4)

A practical application of Spanish to present-day experiences. Spanish sounds and intonation; vocabulary building. Prerequisite: FLan. 2403 or consent of instructor. (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: FLan. 2402. May be taken concurrently with FLan. 2403. (Y)

3401. Advanced Spanish Composition and Syntax, I (4)

Written Spanish and formal grammar applied to advanced composition in the language. Prerequisite: FLan. 2403 or consent of instructor. (F)

3402. Advanced Spanish Composition and Syntax, II (4)

Continuation of FLan. 3401. Prerequisite: FLan. 3401 or consent of instructor. (W)

3403. Advanced Spanish Composition and Syntax, III (4)

Selected authors with special attention to style. Prerequisite: FLan. 3402 or consent of instructor. (Sp)

3404. Creative Writing in Spanish (4)

A course for students who wish to explore imaginative writing of various types. This course may replace one quarter of the sequence FLan. 3401, -2, -3. Prerequisite: Consent of instructor. (Y)

3405. Spanish for Community and Professional Needs (4)

Written and conversational Spanish with emphasis on the terminology of a specific professional area: law and the courts; business and commerce; the social sciences; health fields; bilingual classroom. May be repeated as contents change. Prerequisite: Two years college Spanish or equivalent fluency as determined by instructor. Four hrs. lect./disc. (Y)

3406. Practical Spanish: Community Service (4)

Students will be assisting in the University and/or in the community as tutors, translators and teaching aides. Four hrs. a week with the instructor, and, in addition, a field project. Prerequisite: FLan. 2403 or consent of instructor. Four hrs. lect./disc. (Y)

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: FLan. 2403 or 2409 or consent of instructor. (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: FLan. 3411 or consent of instructor. (Y)

3413. History of the Spanish Language (4)

The historical development of the Spanish language from Roman times to the present. Stylistic analysis of representative texts. Prerequisite: FLan. 2403 and either FLan. 3411 or FLan. 3412 or consent of instructor. (Y)

3418. Introduction to Spanish Civilization (4)

A study of the Spanish national character through its history, arts, and social institutions. Prerequisite: FLan. 2403 or consent of instructor. (Y)

SPANISH PENINSULAR LITERATURE**3419. Spanish Literature of the 12th to the 15th Centuries (4)**

Medieval and pre-Renaissance literature from *El cantar de mio Cid* to *La Celestina*. Prerequisite: FLan. 2403 or consent of instructor. (Y)

3420. Spanish Literature of the Golden Age: The Renaissance (4)

A study of Spanish 16th Century literature: Humanism in Spain; the Renaissance and mystic poets; the *romancero*; the beginnings of the novel; the theater before Lope de Vega. Prerequisite: FLan. 2403 or consent of instructor. (Y)

3421. Spanish Literature of the Golden Age: The Baroque Era (4)

A study of Spanish literature of the 17th Century; the Spanish National theater; the novel from Cervantes to Quevedo; the poetry of Lope de Vega, Góngora and Quevedo. Prerequisite: FLan. 2403 or consent of instructor. (Y)

3422. Modern Spanish Peninsular Literature: The 18th-20th Centuries (4)

A survey of the major literary movements and currents of thought from the Enlightenment through the *Generación del '98* and the present times. Prerequisite: FLan. 2403 or consent of instructor. (Y)

4448. The Generacion del '98 (4)

Currents of thought in the major writers of the *Generación del '98*. Unamuno, Azorín, Pío Baroja, Maeztu, and Antonio Machado. Prerequisite: FLan. 3418, or 3422 or consent of instructor.

4458. Studies in Spanish Literature of the Golden Age (4)

Intensive study of specific author or genre of 16th Century and 17th Century. Course may be repeated up to three times as contents change. Prerequisite: FLan. 3420 or 3421 or consent of instructor. Four hrs. lect./disc. (Y)

4459. Studies in Spanish Literature of the Modern Age (4)

Intensive study of a single author, genre, or literary movement from 18th Century to early 20th Century. Neo-classicism, romanticism, naturalism, the Generation of '98. Course may be repeated as content changes. Prerequisite: FLan. 3422 or consent of instructor. Four hrs. lect./disc. (Y)

4460. Studies in 20th Century Spanish Literature (4)

Spanish literature after the Generacion del '98; intensive study of a single literary genre, movement, or author from 1927 to the present. May be repeated twice as content changes. Prerequisite: FLan. 2403 or upper division standing in Spanish, or consent of instructor. (Y)

SPANISH-AMERICAN LITERATURE**3461. Introduction to Spanish-American Literature: Before the 19th Century (4)**

History and anthology selections. Prerequisite: FLan. 2403 or consent of instructor. (Y)

3462. Introduction to Spanish-American Literature: 19th Century Romanticism and Modernism (4)

Continuation of FLan. 3461. Prerequisite: FLan. 2403 or consent of instructor. (Y)

3463. Introduction to Spanish-American Literature: from 1910 to the Present (4)

Prose, poetry and drama. Continuation of FLan. 3462. Prerequisite: FLan. 2403 or consent of instructor. (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: FLan. 2403 or consent of instructor. (Y)

4461. The Contemporary Literature of One Spanish-American Country (4)

The literature of Mexico, Argentina, Peru, Ecuador, Chile or other countries. Prerequisite: FLan. 3463 or consent of instructor. (Y)

4471. The Literature of Social Protest (4)

Social protest as a theme in contemporary literature with emphasis on the novel. Prerequisite: FLan. 2403. FLan. 3462 or FLan. 3463 recommended. (Y)

4491. The Literature of the Mexican Revolution (4)

A study of the literature of the Mexican Revolution and its development. Prerequisite: FLan. 3462 or 3463 or consent of instructor. (Y)

4494. Contemporary Spanish-American Literature (4)

An intensive study of (a) the novel, (b) poetry, (c) short story, (d) drama, (e) the essay. May be repeated twice for credit as content changes. Prerequisite: FLan. 2403 or consent of instructor. (Y)

4495. A Single Movement or Theme: Spanish-American Literature (4)

Intensive study of a single movement or theme in Spanish-American Literature: romanticism; realism; modernism; Indianista and Gaucho literature; vision of woman; dictatorship in Latin America. May be repeated twice for credit as content changes. Prerequisite: FLan. 2403 or consent of instructor. (Y)

SWAHILI COURSES**1881. Elementary Swahili I (4)**

Study and practice in speaking, understanding, reading and writing Swahili; aural-oral practice in audio laboratory. Recommended for those interested in Afro-American or African Studies.

1882. Elementary Swahili II (4)

Continuation of FLan. 1881. Prerequisite: FLan. 1881 or consent of instructor.

1883. Elementary Swahili III (4)

Continuation of FLan. 1882. Prerequisite: FLan. 1882 or consent of instructor.

GENERAL STUDIES

(General Studies Committee, Interdisciplinary Programs)

Professors: Ann Birge, Corban LePell, Theodore Roszak (Chair)

Associate Professors: Zelda Boyd, William J. Langan, Karl L. Schonborn, Helen Schulak

As one alternative for fulfillment of upper-division student general education requirements, CSUH offers each quarter a number of General Studies courses which are interdisciplinary, intercultural, or contemporary in nature. Any course designated as General Studies can be taken by any upper-division student at the University for the purpose of satisfying upper-division general education requirements. The list of General Studies courses is published in the Schedule of Classes each quarter. Students should see their advisers or the Office of the Dean of Undergraduate Studies, AD 859, or the Interdisciplinary Office, MI 4041, for additional information.

In addition, the following courses are offered under the auspices of General Studies.

LIBRARY

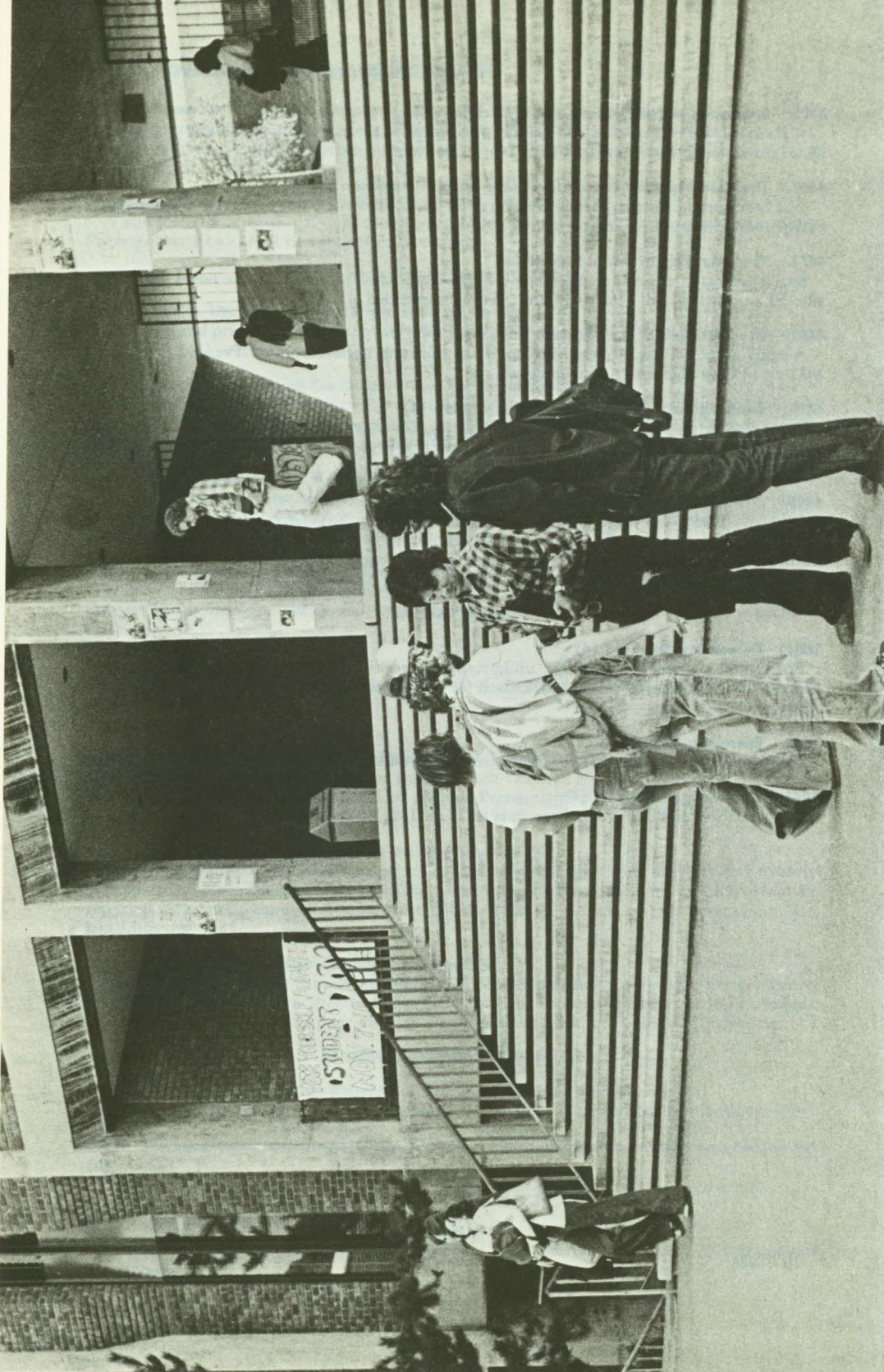
(Offered as a General Studies course by the Library staff)

1500. Self-Directed Course in Library Skills (1)

Introduction to Library facilities. Development of skills in the use of library resources. CR/NC only. (A)

WESTERN HERITAGE

(See P. 535)



GEOGRAPHY

(Department of Geography; School of Arts, Letters and Social Sciences)

Professors: Herbert M. Eder, Robert A. Kennelly, Vincent K. Shaudys, Richard S. Thoman, William L. Thomas, John H. Vann (Chair)

Associate Professors: Donald G. Holtgrieve, John Lier, Thomas H. Pagenhart

Graduate Adviser: John Lier

INTRODUCTION

Geography is the study of the spatial distributions and space relations within the Man-Environment System composing the surface of the earth. Attention is focused upon historic and contemporary man's activities within the context of his bio-physical and cultural environment, and his emergence as one of the major agents of change on the earth's surface. For the baccalaureate degree in Geography, a choice of two options is offered, leading to a Bachelor of Arts degree and a Bachelor of Science degree.

The Bachelor of Arts option in Geography provides for a liberal education, and prepares one for positions in business, government, service in foreign areas, and especially teaching. When combined with electives in art, music, English, foreign languages, and mathematics, geography is excellent preparation for elementary teaching. When combined with other social science fields (anthropology, economics, history, political science, sociology, social psychology, social science), geography is excellent preparation for secondary teaching in social studies. Combining an emphasis in physical-biotic geography with other science fields (biology, chemistry, earth sciences, mathematics, physics, psychology, statistics) is excellent preparation for secondary teaching in science and environmental studies. An M.A. degree is required for Community College instruction.

The following fields of concentration of the Bachelor of Science option may be arranged with the appropriate faculty adviser: 1) Biogeography, 2) Cartography, 3) Cultural Geography, 4) Economic Geography-Regional Planning, 5) Historical Geography, 6) History and Philosophy of Geography, 7) Physical Geography, 8) Regional Geography, 9) Urban Geography. The Bachelor of Science option in Geography prepares one for advanced study (M.A. and Ph.D. degree programs) in graduate schools of Geography, and for positions in urban and regional planning, resource management, map design and production, business, government, service in foreign areas, teaching, and research.

Courses are offered for an academic minor in Geography for students majoring in other fields of study. The Geography Department also offers an emphasis in the Liberal Studies major.

The Geography Major Leading to a B.A. Degree

This major is particularly appropriate for students proceeding toward a teaching credential, or not having a career objective in Geography. It consists of not less than 53 nor more than 55 units of *upper-division* geography courses.

Requirements

I. Complete the 76-unit requirement in general education required for B.A. and B.S. degrees.

Recommended Courses:

IN BASIC SUBJECTS: Engl. 1001 and either Statistics or Foreign Language or Mathematics.

IN HUMANITIES: Western Heritage (G.S. 1001, -2, -3) or South Asian Cultures (Asia 3011, -12, -13), or Foreign Literature or History or Philosophy.

IN NATURAL SCIENCES: Biol. 1000, E.Sc. 2101, and Mathematics or Statistics.

IN SOCIAL SCIENCES: Anthropology or Human Development or Economics or Political Science or Social Science or Sociology.

IN ELECTIVES: Include at least one ethnic studies course (Asian-American, Black

Studies, Mexican-American, Native-American). Teacher Education courses may satisfy elective and/or Upper Division General Education requirements.

Students who complete this option may apply up to 16 units of Foreign Language courses in satisfaction of the requirements in Basic Subjects, electives and/or upper division general education, or up to 13 units of Statistics courses or 16 units of Mathematics courses in satisfaction of the requirements in Basic Subjects, Natural Sciences, electives and/or upper division general education. If Geog/ESci 4100 is taken, it may be applied to the Natural Science requirement.

II. Courses in Geography	68-70 units
1. Lower Division	15 units
Geog. 2100. Principles of Physical Geography	4
Geog. 2300. Principles of Cultural Geography	4
Geog. 2310. Economic Geography	4
Geog. 2410. Map Reading and Interpretation	3
2. Upper Division	53-55 units
<i>Junior Year</i>	
Geog. 3400. Field Geography of the San Francisco Bay Region	5
Geog. 3450. Geographic Literature and Research Aids	4
<i>Junior and/or Senior Year</i>	
One of:	
Geog. 3100. Descriptive and Regional Climatology	
Geog. 3110. Principles of Geomorphology	4-5
One of:	
Geog. 3410. Aerial Photo Interpretation	
Geog. 3600. Cartographic Principles and Graphic Communication	4
Geog. 4430. Application of Quantitative Methods in Geography	
One of:	
Geog. 3300. Historical Cultural Geography	
Geog. 3330. Urban Geography: The Modern City	
Geog. 3340. Population, Settlement, and Mobility	4
Geog. 3350. Regional Development	
Geog. 4300. Political Geography	
One of:	
Geog. 3320. Agricultural Land Utilization	
Geog. 4320. Geography of Energy Resources	4
Geog. 4350. Water Resources and Their Management	

Seven elective upper-division courses in geography, to include at least two but no more than three courses in regional geography (3500 series) from at least two different instructors 28-29

NOTE: The following courses or their equivalents would have to be completed if a student in the B.A. in Geography desired to enter the M.A. degree program in Geography:

- Geog. 3410. Aerial Photo Interpretation;
- Geog. 3420. Field Instruments and Observation,
or a departmental examination of competence in field observation and report writing;
- Geog. 3600. Cartographic Principles and Graphic Communication,
or Geog. 4430. Application of Quantitative Methods in Geography.

III. Courses in supporting fields 0-17 units

Proficiency Requirement in Foreign Language or Statistics or Mathematics;

Fulfill one of the following three groups of courses, or equivalent;

Foreign Language:

One year of college-level courses in one modern foreign language (1-1, 1-2, 1-3, or 1-4, 1-5, 1-6, or equivalent), or demonstrate reading competence by means of a departmental foreign language examination given once each quarter during either the registration period or the first week of instruction (0-12)

Statistics:

- Stat. 1000. Elements of Probability and Statistics, or equivalent;
- Stat. 3010. Statistical Methods in the Social Sciences;
- Geog. 4430. Application of Quantitative Methods in Geography;
plus one 4000-level Statistics course (Stat. 4610 recommended).....(17)

Mathematics

- Math. 1300. Elementary Functions and Coordinate Geometry
- Math. 1304. Calculus I
- Math. 1305. Calculus II
- Math. 2304. Calculus III.....(16)
- or
- Math. 2101. Linear Algebra

Unit summary

Major: courses in Geography	68-70
courses in supporting fields.....	0-17

The Geography Major Leading to a B.S. Degree

This major is appropriate for students with a career objective in professional Geography that requires entry into a graduate school program for the M.A. or Ph.D. degrees. It consists of not less than 49 nor more than 51 units of *upper-division* geography courses.

Requirements

I. Complete the 76-unit requirement in general education required for B.A. and B.S. degrees.

Recommended Courses:

IN BASIC SUBJECTS: Engl. 1001 and either Statistics or Foreign Language or Mathematics.

IN HUMANITIES: Western Heritage (G.S. 1001, -2, -3) or South Asian Cultures (Asia 3011, -12, -13), or Foreign Literature or History or Philosophy.

IN NATURAL SCIENCES: Biol. 1000, E.Sc. 2101, and Mathematics or Statistics.

IN SOCIAL SCIENCES: Anthropology or Human Development or Economics or Political Science or Social Science or Sociology.

IN ELECTIVES: Include at least one ethnic studies course (Asian-American, Black Studies, Mexican-American, Native-American). Teacher Education courses may satisfy elective and/or Upper Division General Education requirements.

Students who complete this option may apply up to 16 units of Foreign Language courses in satisfaction of the requirements in Basic Subjects, electives and/or upper division general education, or up to 13 units of Statistics courses or 16 units of Mathematics courses in satisfaction of the requirements in Basic Subjects, Natural Sciences, electives and/or upper division general education. If Geog/ESci 4100 is taken, it may be applied to the Natural Science requirement.

II. Courses in Geography 64-66 units

1. Lower Division (all of the following)	15 units
Geog. 2100. Principles of Physical Geography	4
Geog. 2300. Principles of Cultural Geography	4
Geog. 2310. Economic Geography	4
Geog. 2410. Map Reading and Interpretation	3
2. Upper Division	49-51 units

Required Courses:

- Geog. 3420. Field Instruments & Observation
- Geog. 3450. Geographic Literature and Research Aids
- Geog. 3600. Cartographic Principles
- Geog. 4800. Growth of Geographic Thought.....

One of:

- Geog. 3100. Descriptive Climatology
- Geog. 3110. Geomorphology..... 4 or 5

Two of:

Geography 3500 series with different instructors 7 or 8

One of:

Geog. 4110. Field Course in Physical Geography 5

Geog. 4210. Field Course in Biotic Geography 5

Geog. 4310. Field Course in Cultural Geography 5

Geog. 4315. Field Course in Urban Geography 5

Plus 16 units of electives in Geography courses other than the 3500 series and not taken to fulfill above requirements.

III. Courses in supporting fields 0-17 units

Proficiency Requirement in Foreign Language or Statistics or Mathematics:

Fulfill one of the following three groups of courses, or equivalent:

Foreign Language:

One year of college-level courses in one modern foreign language (1-1, 1-2, 1-3, or 1-4, 1-5, 1-6, or equivalent), or demonstrate reading competence by means of a departmental foreign language examination given once each quarter during either the registration period or the first week of instruction (0-12)

Statistics:

Stat. 1000. Elements of Probability and Statistics, or equivalent;

Stat. 3010. Statistical Methods in the Social Sciences;

Geog. 4430. Application of Quantitative Methods in Geography;

plus one 4000-level Statistics course (Stat. 4610 recommended) (17)

Mathematics:

Math. 1300. Elementary Functions and Coordinate Geometry

Math. 1304. Calculus I

Math. 1305. Calculus II

Math. 2304. Calculus III (16)

or

Math. 2101. Linear Algebra

Unit Summary

Major: courses in Geography 64-66 64-83 units

courses in supporting fields 0-17

The Geography Minor

Required Courses:

A. Geog. 2100, 2300, 3410 (12 units)

B. Two regional courses (3500 series) from different instructors (8 units)

C. Four courses from one of the following groups (16-17 units)

1. Human Geography Option: Geog. 2310, 2320, 3300, 3320, 3330, 3340, 4300, 4305

2. Physical-Biotic Resources Option: Geog. 3100, 4100, 4130, 4305, 4320, 4350

General Education Courses in Geography

Lower-Division: Geog. 1000. Introduction to Geography*Upper-Division:* Geog. 3000. Resources and Man

Geography Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)

Two social science fields must be selected

As first field:

Geog. 2100, 2300, 2310, 2410, 3000; Geog. 3500 or 3505; one course from each of two of the following groups:

Geog. 3410, 3600, 4430

Geog. 3300, 3335, 4500

Geog. 3400, 4700

Geog. 3320, 4320, 4350

Geog. 3100, 3110

Geog. 3330, 3340, 4300, 4400

As second field:

Geog. 2100, 2300, 2310, 3000 and one approved 4-unit upper division Geography elective.

*Liberal Arts Track**Credential Track* (path for students seeking credential after graduation)

Two social science fields must be selected

As first field:

Geog. 2100, 2300, 2310, 2410, 3000; Geog. 3500 or 3505; one course from each of three of the following groups:

Geog. 3410, 3600, 4430

Geog. 3300, 3335, 4500

Geog. 3400, 4700

Geog. 3320, 4320, 4350

Geog. 3100, 4100

Geog. 3330, 3340, 4300, 4400

As second field:

Geog. 2100, 2300, 2310, 3000 and two approved 4-unit upper division Geography electives.

The Master of Arts in Geography

GENERAL INFORMATION

Graduate study is offered leading to the degree of Master of Arts in Geography, with a choice of nine 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 thesis research or a special project that allow and motivate the student to advance further in a chosen specialty. 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.

REQUIREMENTS FOR THE MASTER OF ARTS IN GEOGRAPHY

A. Admission to the Program (Conditionally Classified Standing)

Admission to this University as a post-baccalaureate student is the prerequisite for entry into the graduate program. Graduate courses in Geography are open to students who have completed the prerequisites and 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 status.

A student must complete the following requirements to be admitted to the program as a conditionally classified graduate student:

1. file the appropriate university application forms, including the *Supplemental Post-Baccalaureate/Graduate Application for 1976-77*. An information booklet which contains the required forms 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; and
2. have a grade-point average of 2.5 or higher in all undergraduate work; and have a grade-point average of 3.0 or higher in all upper-division and graduate work in Geography prior to request for entry into the program. (If a student has earned less than a 2.5 grade-point

average in all undergraduate work, or if he has less than a 3.0 grade-point average in upper-division and graduate courses in Geography, he must continue graduate work in conditionally classified status until he has removed the deficiencies and demonstrated his 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.

B. Attainment of Classified Standing

A student must complete the following requirements to attain classified status:

1. complete the following undergraduate courses or their equivalents (*Note: up to 10 units of undergraduate courses may be taken as electives applicable toward the 45 units for the M.A. degree*), or demonstrate a competency by examination in:
 - Geog. 3100. Descriptive and Regional Climatology,
or
 - Geog. 3110. Principles of Geomorphology;
 - Geog. 3410. Aerial Photo Interpretation;
 - Geog. 3420. Field Instruments and Observation;
 - Geog. 3600. Cartographic Principles and Graphic Communication,
or
 - Geog. 4430. Quantitative Methods in Geography;
 - Geog. 4800. Growth of Geographic Thought.
2. file an intended program of study with the departmental graduate adviser;
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; and
5. be recommended for classified status by the department.

C. Maintenance of Classified Standing

To maintain classified standing a grade-point average of 3.0 or higher must be attained on all work taken in the approved program of study, whether at California State University, Hayward or at any other college or university. Only grades of A, B, and C are acceptable for courses applicable to degree requirements.

If a candidate's grade-point average drops below 3.0 he or she shall be dropped from classified status and be placed in conditionally classified or probationary status until he or she has remedied his or her deficiencies and has been recommended by the department for return to classified status. Failure by a student to return to classified status in two additional quarters of study (or following completion of 15 additional quarter units) shall result in his or her being removed from the departmental program or being recommended for dismissal.

D. Advancement to Candidacy

Admission to classified standing does not imply that a student will be advanced to candidacy for the M.A. degree. A student who holds classified status will be advanced to candidacy for the M.A. degree when he or she has:

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 adviser, the student, and the Geography Graduate Studies Committee 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 adviser, the student, and the Geography Graduate Studies Committee 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;
 - Stat. 3010. Statistical Methods in the Social Sciences;
 - Geog. 4430. Application of Quantitative Methods in Geography;
 - plus one 4000-level statistics course (Stat. 4601 recommended);
 - and*, following consultation with the Department Computing Coordinator, 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 adviser, the student, and the Geography Graduate Studies Committee agree. "Proficiency" in mathematics is defined as satisfactory completion of the equivalent of Elementary Functions and Coordinate 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 through 4023.
2. declared an intention to complete either a thesis or a special project; and
3. been recommended for advancement to candidacy by the department.

E. Requirements for the M.A. Degree in Geography

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 seven years just preceding the completion of the requirements for the degree;
 - b. not fewer than 32 must have been completed in residence;
 - c. not fewer than 24 must have been in geography courses in the 6000 series, including the thesis or special project;
 - d. not more than 6 may have been for a thesis (Geog. 6910) nor more than 4 for a special project (Geog. 6899); and
 - e. not more than 13 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 and the Dean of Graduate Studies, to include:

	<i>Units</i>
a. Geog. 6000. Seminar on Geographic Research	2
b. Geog. 6010. Seminar on Research Theory and Philosophy of Geography	4
c. four graduate seminars in geography	12
<i>Note: One graduate seminar in a closely related field may be included.</i>	
d. elective courses (graduate or upper division) in geography taken as a graduate student	10-15
e. elective courses (graduate or upper division) outside of geography in one or more closely related fields	6-13
<i>Note: A student with a baccalaureate degree in a closely related field may take these elective courses in geography.</i>	
f. thesis	6
<i>or</i> special project	<u>4</u>
Total units	45

4. have obtained a grade-point average of 3.0 or higher
 - a. over all post-baccalaureate units undertaken;
 - b. over all 45 units offered as satisfying the requirements of the M.A. degree program;
5. be a registered student in the quarter the thesis or special project is completed;
6. have been recommended for the M.A. degree in Geography by the department.

UNDERGRADUATE COURSES

INTRODUCTORY

1000. Introduction to Geography (4)

Basic aspects of modern geography: the environmental challenge and human response; the regional mosaic of the landscape reflecting human adjustment to earth environments. One half-day field trip required. (F, W, Sp)

2100. Principles of Physical Geography (4)

Major components of the physical environment, including landforms, climate, vegetation, and soils. One all-day Saturday field trip required. Three hrs lect., 2 hrs. act. (W, Sp)

2300. Principles of Cultural Geography (4)

Cultural interpretations of man-environment relationships; distribution and diffusion of man and his works. One all-day Saturday field trip required. Three hrs. lect., 1 hr. disc. (F, Sp)

2310. Economic Geography (4)

The importance of location and linkages of economic activity for modern circumstances, including planning and development. (F, W)

2320. Social Geography (4)

Principles of human spatial behavior; the social uses of the geographical environment and the patterns that result from people's aggregate behavior in space. (Y)

2410. Map Reading and Interpretation (4)

Reading and interpretation of commonly used maps; map appreciation, design, and evaluation; art of map-making. Two hrs. lect., 4 hrs. act. (F, Sp)

3000. Resources and Man (4)

Exploration of the interactions among habitat, population, and resource utilization. Emphasis placed upon the changing potential of the earth to act as a resource base. Four hrs. lect., or 3 hrs. lect. and 1 hr. disc. (F, W, Sp)

INTERMEDIATE—PHYSICAL-BIOTIC GEOGRAPHY

3100. Descriptive and Regional Climatology (4)

Climates of the continents; comparisons and contrasts among climatic types; relations between atmospheric processes and phenomena and the problems of climatic classification; microclimatology and applied climatology. Prerequisite: Geog. 2100. (F, Sp)

INTERMEDIATE—CULTURAL GEOGRAPHY

3300. Historical Cultural Geography (4)

Historical perspective on the form, substance, and distribution of the works of man; roles of invention, diffusion, and location in cultural control of the land. Prerequisite: Geog. 1000 or 2300 or 3000. (Y)

3310. Geography of Transportation and Communication (4)

Impact of transportation and communication modes, networks, rates, and policies on location of manufacturing, businesses, agriculture, and related activities, emphasizing the United States and Canada. (Sp)

3320. Agricultural Land Utilization (4)

World agriculture: variation of agricultural methods and products; land tenure, soil fertility, techniques, changing patterns of agricultural regions and frontiers. Prerequisite: Geog. 1000 or 2300 or 3000. (W)

3330. Urban Geography: The Modern City (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. (F)

3335. Urban Geography: the Preindustrial City (4)

Evolution and dispersal of urbanism as a spatial phenomenon before the Industrial Revolution; morphology, function, viability, distribution of preindustrial cities; spatial interaction, cross-cultural comparisons. Prerequisite: Geog. 1000 or 2300 or 3000. (Y)

3340. Population, Settlement, and Mobility (4)

Distributions and numbers of people in space and time on the earth's surface; habitation, house-types, residence and mobility patterns, settlement forms and their functions. Prerequisite: Geog. 1000 or 2300 or 3000. (W)

3350. Regional Development (4)

An assessment of regional planning and development, especially in the United States and Canada, emphasizing economic, social, and political conditions and ecological relationships. (Y)

INTERMEDIATE—BASIC GEOGRAPHIC SKILLS

3400. Field Geography of the San Francisco Bay Region (5)

A wide range of field experiences in observing, analyzing, and describing major man-environment relationships and resulting environmental problems. Prerequisites: Geog. 2100 or 2300 or 2310 and Junior Standing. One hr. lect., 8 hrs. act. (Sp)

3410. Aerial Photo Interpretation (4)

The principles of air photo mapping and the reading and interpretation of the earth's landscapes from air photos. One half-day field trip required. Two hrs. lect., two 2-hr. activity sessions. (F)

3420. Field Instruments and Observation (5)

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. One hr. lect., 8 hrs. act.; field work. (F, Sp)

3450. Geographic Literature and Research Aids (4)

Seminar in the basic geographical literature, source materials, and research aids. Prerequisite: Junior standing and concurrent enrollment in one other upper division geography course. (F, Sp)

3460. Environmental Impact Analysis (4)

Analysis of contents and standards of environmental impact reports and their role in the planning process. Experiences in evaluating and preparing impact statements. (F, Sp)

INTERMEDIATE—REGIONAL GEOGRAPHY

3500. Geography of North America (4)

Spatial analysis and space relations of Canada and the United States; the character or personality of their distinctive human-use regions; problems of population growth and resource development. (A)

3505. Geography of California (4)

Regional variations within California; factors contributing to landscape change; exploration, settlement, economic development, and urban-industrial-transportation patterns. Of particular interest and value to prospective elementary teachers. (A)

3510. Geography of Mexico, Central America, and the Caribbean Islands (4)

Historical and contemporary studies in the Middle American region, including physical environment, human settlement, and economic activities; problems of resource development. (F)

3515. Geography of South America (4)

Distinguishing characteristics among the Andean countries of Spanish heritage, the Guianas, and the largest country—Brazil. (W)

3520. Geography of the Pacific Basin (4)

Study of the Pacific Islands: physical geography; discovery, exploration, and occupation; strategic role of the Pacific Islands in the modern world. (Su)

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. (F)

3540. Geography of Eastern Asia (4)

Japan, Korea, China, Mongolia, Tibet, Taiwan, and Hong Kong.

3550. Geography of Southeast Asia (4)

The Philippines, Indonesia, Malaysia, and the mainland countries of Viet Nam, Laos, Cambodia, Thailand, and Burma.

3560. Geography of South Asia (4)

Pakistan, India, Nepal, Sikkim, Bhutan, and Ceylon.

3580. Geography of the Soviet Union (4)

Landforms, climate, vegetation, mineral, and demographic patterns; an analysis of historical development of cultural landscape and the agriculture and industry of the U.S.S.R. (W)

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. (Sp)

INTERMEDIATE—CARTOGRAPHIC GEOGRAPHY**3600. Cartographic Principles and Graphic Communication (4)**

Introduction to principles and processes used in the design, compilation, production, and reproduction of maps; emphasis on maps as communication media. One half-day field trip required. Prerequisite: Geog. 1000 or 2100 or 3000 or consent of instructor. One hr. lect., 6 hrs. act. (F, W, Sp)

3610. Map Design, Compilation, and Construction (5)

Problems in map design: qualities of map projections, evaluation of source materials, accuracy of data, choice of scales, selection of symbols and typography, techniques of color separation. Prerequisite or concurrent: Geog. 3410 (may be taken concurrently) and 3600. Two hrs. lect., 6 hrs. act. (W)

3620. Statistical and Experimental Cartography (5)

Map projections: their uses, computation, and construction; calculation and compilation of graphs and special-purpose maps; individual and/or group projects in advanced cartography. Prerequisite: Geog. 3610. One hr. lect., 8 hrs. act. (Sp)

ADVANCED—PHYSICAL-BIOTIC GEOGRAPHY**4110. Principles of Geomorphology (5)**

Analysis of landforms; processes shaping the earth's surface. Laboratory interpretation of maps and aerial photographs; two all-day Saturday field trips required. Prerequisite: E.Sc. 2101. Four hrs. lect., 3 hrs. lab. Cross-listed with E.Sc. 4100. (W)

4130. Field Course in Physical Geography (5)

Problems and methods in analysis and mapping of landforms, drainage, weathering, soils, climatic elements; deduction of interrelations among physical processes shaping the landscape. Prerequisite: Geog. 3100 or 3110 or consent of instructor. One hr. lect., 8 hrs. act. (W)

4130. Hydrogeography (4)

Nature of water cycle with emphasis on relationships among meteorological, surface water, and ground water phenomena; problems of contamination; human responses to floods and river regimes. Prerequisite: Geog. 3100 or consent of instructor. (F)

4210. Field Course in Biotic Geography (5)

Problems and methods in analyzing and mapping vegetation associations, soil types, animal habitats; interrelations among processes determining the distribution of biotic elements. Prerequisite: Biol. 4130 or consent of instructor. One hr. lect., 8 hrs. act. (Sp)

ADVANCED—CULTURAL GEOGRAPHY**4300. Political Geography (4)**

Relations of politically-organized units (nation states, dependent territories, minor civil divisions, special-purpose regions) to their physical and cultural morphology and functions. Prerequisite: Geog. 1000 or 2300 or 3000; or major or minor in history or political science. (Will not be offered 1976-77)

4305. Domestication of Plants and Animals (4)

Motivations for domestication; processes and places of domestication; diffusion of domesticates from places of origin; historical role of domesticates in human affairs. Prerequisites: Biol. 1000 or equivalent and one of Anth. 1000, Anth. 2300, Geog. 1000, Geog. 2100 or Geog. 2300. (Sp)

4310. Field Course in Cultural Geography (5)

Analysis and mapping of features of human origin; recognition of co-variation; cultural change; interrelations of form, function, and movement. Prerequisite: Geog. 2300 and one course in Geog. 3300 series. One hr. lect., 8 hrs. act. (Sp)

4315. Field Course in Urban Geography (5)

Analysis of elements of urban structure and form; rural-urban spatial interaction in the San Francisco Bay Area. Prerequisite: Geog. 3330. One hr. lect., 8 hrs. act. (W)

4320. Geography of Energy Resources (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. (Sp)

4350. Water Resources and Their Management (4)

Fresh water resources, supply, control, and multiple use for domestic and municipal purposes, waste transportation, manufacturing and processing, irrigation and drainage, power, recreation, navigation, and flood control. Prerequisite: Geog. 2310. (W)

ADVANCED—HISTORICAL-THEORETICAL GEOGRAPHY**4400. Location Theory (4)**

Principles underlying the location and distribution of phenomena in a theoretical framework; application of systems analysis to the study of spatial relations; concepts and theories of static structure, functional organization, and simple dynamic systems. Prerequisite: Geog. 2310 or consent of instructor. (Y)

4425. Remote Sensing of Earth Environments (4)

Study of techniques of environmental analysis from the atmosphere and space; interpretation of ultraviolet, infrared, radar and photo images. Prerequisites: Geog. 3410 and consent of instructor. Two hrs. lect., 2 two-hr. activity sessions. (Y)

4430. Application of Quantitative Methods in Geography (4)

Application of quantitative methods to the analysis of areal data in the solution of geographic problems. Prerequisite: Stat. 1000 and 3010, or equivalent. Three hrs. lect., 2 hrs. act. (W)

4500. Historical Geography of Anglo-America (4)

Examination of American historical-geographic processes of exploration, migration, settlement, land utilization, urbanization, and cultural integration in North America. (W)

ADVANCED—SPECIAL PROGRAMS

4700. Educational Geography (4)

Concepts of geography as applied to the presentation of geographic instruction; coordination with other school curricula. (W)

4750. Geography of International Tourism (3)

Analyses of physical, biotic, and socio-cultural characteristics of selected international tourist regions: problems of tour planning; environmental impact of tourist facilities, infrastructure, and traffic patterns. Prerequisite: One 3500 series course except 3500, 3505, or 3525, and consent of instructor. (Y)

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. (F, Sp)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)**

GRADUATE COURSES *

6000. Seminar on Geographic Research (2)

Introduction to graduate study in geography; techniques of collection, evaluation, and presentation of geographical data. Recommended first course for graduate students. Prerequisite: graduate standing. (F)

6010. Seminar on Research Theory and Philosophy of Geography (4)

An analysis of geography as a fundamental research discipline; its aims and goals, and relations with other fields of knowledge. Required of all candidates for the M.A. degree. Prerequisite: Geog. 4800 and 6000. (W)

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, and consent of instructor.

6200. Seminar in Biogeography (3)

Selected topics and directed research in biogeography based upon intensive readings, group discussion, and oral and written reports. Prerequisite: Biol. 4130 or Geog. 4210, or equivalent, and consent of instructor. (W)

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, and consent of instructor. (F)

6320. Seminar in Urban Geography (3)

Selected topics and directed research in urban geography based upon intensive readings, group discussion, and oral and written reports. Prerequisites: two upper-division courses in urban studies and economic geography, or consent of instructor. (Sp)

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: consent of instructor and one upper division course in historical geography or two upper division courses in history.

* All upper-division Geography courses (except Geog. 3000) are acceptable for the M.A. degree program.)

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 and consent of instructor.

6600. Seminar in Cartography (3)

Formulation and solution of one or more cartographic problems, based on intensive readings, directed research, and group discussions. Prerequisites: Geog. 3600 and 3610, or equivalent, and consent of instructor. (Sp)

6700. Seminar in Man's Role in Changing the Face of the Earth (3)

Study of selected topics in Man/Environment relationships and their effects upon landscape change and environmental problems. Prerequisites: one of Geog. 3000, 3300, 3460, 4320, 4350, or consent of instructor. (Sp)

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. 4301, or equivalent, or consent of instructor. (W)

6850. Geographic Internship (4-6)

Individual students will be assigned to public, private, or volunteer agencies and will be supervised jointly by agency personnel and the course instructor. Students will exchange experiences in group session and be subject to review by instructor. Prerequisite: Classified standing. (F, W, Sp)

6899. Special Project (2)

Special project assigned by Graduate Studies Committee following consultation with the student; to be completed within two academic quarters in a tangible form to be determined in advance. Enrollment in course for 2 quarters required. Prerequisite: advancement to candidacy.

6900. Independent Study (1-4)**6910. Thesis Research (1-6)**

Supervised research on approved topics toward partial fulfillment of Master's degree. Prerequisite: Classified standing and appointment of thesis adviser. (A)

6920-6999. Directed Group Study (1-3)

HEALTH SCIENCES

(Health Sciences Program, School of Science)

Professor: John C. Wong (Director)

The Health Sciences Major Leading to a B.S. Degree Option in Occupational Health

The University offers a major program in Health Sciences, Option in Occupational Health, leading to a B.S. degree. Graduates of the program will be trained to recognize and evaluate health and safety problems and to develop controls for these problems. Employment opportunity for graduates is available in general industry, insurance companies, and regulatory agencies.

The total major and option program, including supporting fields, totals 134–137 units. Students must complete 29–31 units in Biological Science, 23 units in Chemistry, 12 units in Physics, 4 units in Mathematics, 4–5 units in Statistics, 5 units in Psychology, 4 units in Management Sciences, 3 units in Physical Education, and 8 units in either Anthropology or Sociology as described below. In completing these requirements a student will satisfy the following General Education requirements: Basic Subjects area exclusive of Engl. 1001, the Natural Sciences area, the Social Sciences area, and one U.D.G.E. course.

Major Requirements

<i>Lower Division</i>	<i>Units</i>
P.E. 1110.....	3
Biol. 1101, -2 -3, 2061, -2	23
Chem. 1101, -2, -3, 2301, -2	23
Math. 1300	4
Phys. 2701, -2, -3	12
Psyc. 2000.....	5
Stat. 1000 or 2400	4-5
Anth. 1000 * or Soc. 2000	4
Total Lower Division	78-79
<i>Upper Division Core</i>	
H.Sc. 3000, 3200, 3300, H.Sc. 3400 or Psyc. 4410	16
Biol. 3410 and either 3405 or 4010	6-8
Anth. 3720 or Soc. 4720	4
Total Upper Division Core	26-28
<i>Occupational Health Option</i>	
H.Sc. 4000, 4100, 4200, 4300, 4400, 4500	23
Mgmt. 3600	4
Total Option	27
Total Major	131-134
General Education not completed in major.....	30
Free Electives	22-25
Total Units in Degree.....	186

COURSES

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. discussion/activity. (Y)

* Anth. 3000 may be substituted for Anth. 1000.

3200. Environmental Health (4)

The relationship of the environment to man'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)

3400. Individual and Community Mental Health (4)

An analysis of various concepts of mental health. The application of intervention techniques. Prerequisite: Psyc. 2000. (Y)

4000. Introduction to Occupational Health (4)

An introduction to the field of occupational health and industrial safety. (Y)

4100. Health Hazards to Workers (4)

Occupational health hazards associated with clinical, physical, biological and social stresses. Prerequisites: Biol. 3405 or 4010, Chem. 2302, Phys. 2703. (Y)

4200. Occupational Environmental Controls (4)

A study of the reduction of occupational hazards. Prerequisite: H.Sc. 4100. (Y)

4300. Instrumentation, Sampling and Analysis (4)

Sampling procedures and equipment used in surveying the worker's environment. Three hrs. lect., 3 hrs. lab. (Y)

4400. Industrial Toxicology (4)

Occupational poisons and their effects upon workers. (Y)

4500. Supervised Field Training and Report Writing (3)

A supervised field experience in health related programs. Prerequisite: Senior standing. Nine hrs. fieldwork. (Y)



HISTORY

(Department of History; School of Arts, Letters and Social Sciences)

Professors: David B. Chan, Lejeune Cummins, Edward E. France, Frank D. Gilliard (Associate Chair), Rodney G. Kennedy-Minott, Robert R. Miller, Eugenia V. Nomikos, Richard C. Raack, William C. Reuter, Richard B. Rice, Theodore Roszak, Alan M. Smith, William A. Sullivan, Mark J. Van Aken, John D. Walz

Associate Professors: William A. Bullough, Michael W. Dols, José A. Fernández, W. Mark Fruin, Bruce A. Glasrud (Chair), Tom G. Hall, Gerald S. Henig, John E. Morby, Richard J. Orsi, Judith M. Stanley

Graduate Adviser: William C. Reuter

INTRODUCTION

The subject of history is the recorded past of man and his activities. Its object is to investigate that past, and in particular to understand the causes of historical events. History is made by men and women, and a knowledge of history illuminates the nature of civilized life. History is therefore an essential component of a liberal education. A major in history is excellent preparation for a career in teaching, law, government, public administration, diplomacy, librarianship, museum and archival work, religion, and other areas; for non-majors, history lends perspective to the study of other fields in the arts and sciences.

The B.A. degree major in history at California State University, Hayward, includes the study of particular periods, geographical areas, and countries; techniques and methods of historical research; and the philosophy of history, which deals with the development of historical thought and the various theories of historical interpretation. The M.A. degree is granted after intensive study and research at the graduate level.

The History Major Leading to a B.A. Degree

Requirements

- I. Complete the 76-unit requirement in general education required for B.A. and B.S. degrees.

Recommended courses: A minimum of 4 units in Political Science and 4 units in Economics is strongly recommended as a part of the Social Science requirement in General Education (I.B.3).

Students who complete this major may apply up to 8 units of Foreign Language courses in satisfaction of the Basic Subjects requirement in General Education (I.A.2).

- II. Courses in History 56 units

1. Lower Division 12 units

These courses must be taken no later than the third quarter after the student has declared a History major at CSUH.

- a. Hist. 1000 (4) Students transferring from other institutions where they have taken courses equivalent to History 4030 and History 4031 or four upper division courses in History shall be excused from taking History 1000. If History 1000 is waived, an upper division course in History acceptable to the Department must be substituted.
b. History of Europe, 1011 (4), and 1012 (4)

2. Upper Division 44 units

- a. Hist. 4030 (4), and 4031 (4)
b. Hist. 4800 series (4)
c. A minimum of 8 units in each of the following fields, preferably chronologically: (a) Europe, (b) United States (16).
d. 8 units from *one* of the following fields: (a) Asia, (b) Latin America, (c) Islam. (8)
e. Electives in History (8)

Hist. 3400 may not be counted toward completion of the 44-unit requirement. No more than 8 units of the Hist. 4800 series and 4900 (beyond the required 4 units) may be counted toward the major.

III. Courses in supporting fields 0-24 units

Demonstrate a reading knowledge of one foreign language. The usual method of demonstrating proficiency is by completing two years of college level course work. A satisfactory equivalent of this is the completion of the third quarter of an intermediate foreign language course with a passing grade. A second method is to complete, with a grade of "B" or better, the third quarter of a language reading course such as French, FLan. 1106, German, FLan. 1206, Spanish, FLan. 1406, or any similar course which may be offered, or to maintain a B average over all three quarters of the language reading course. A third method is to fulfill the foreign language requirement by examination. Regular continuing students at California State University, Hayward, wishing to satisfy their foreign language requirement by examination must do so within two years of declaring their major, and in any case by the end of the first quarter of their junior year. Transfer students must take this examination by the end of their junior year. Students transferring into the History Department in their senior year must complete this requirement by the end of the first quarter (that is, before completion of 150 units). The History Department will offer foreign language examinations once each quarter; see the Departmental Secretary for examination dates.

Unit Summary

Major: courses in History.....	56	}	56-80 units
courses in supporting fields	0-24		

Minors in American Studies, East Asian, and South Asian Studies

In addition to fulfilling requirements for the history major, students may choose to adopt one of the interdisciplinary Minors Cal State offers in American Studies, East Asian or South Asian Studies. Required courses in the Minors may also satisfy major or general education requirements. Inquiries should be directed to the Departmental Office.

The Minor in History

Requirements: 32 quarter units distributed as follows:

Lower Division: (8 units) Hist. 1011-12; or Hist. 1101-2; or Hist. 1108-9.

Upper Division: (24 units) Hist. 4030 or 4031, a minimum of 8 units in *each of two* of the following fields: (a) Europe, (b) United States, (c) Latin America, Asia, or Islam (choose one); one 4-unit upper division history elective. *Note:* no more than 8 units of Hist. 4900 and Hist. 48 -- may be counted as part of the minor. Hist. 3400 may not be counted toward the minor.

TEACHER CREDENTIAL CANDIDATES

The History Department offers two programs which have been approved by the State Commission on Teacher Preparation and Licensing as waivers for the examinations in the Single Subjects History and Social Science. Details of each program follow.

I. Single Subject Waiver Program in History

1. Introductory Surveys in European and United States History (16 units)
 - A. Hist. 1011 and Hist. 1012
 - B. Hist. 1101 and Hist. 1102
2. Studies of Specific Periods in the History of Nation States or Geographic Regions (8 units)

Any two upper-division courses in history which examine a specific period in history such as the early national period in the United States, Europe in the 20th century, or modern China.

3. Studies of Broad Themes in the History of Nation States or Geographical Regions (8 units)

Any two upper-division courses in history which examine broad themes in history such as the social and intellectual history of Latin America, the diplomatic history of the United States, or the social and economic history of modern Europe.
4. Studies in Specific Historical Topics (8 units)

Any two upper division courses in history which examine a specific topic in history such as historical Christianity, U.S. nationalism, or the origins of the Cold War. In addition to courses of this kind which are a part of the History Department's regular offerings, candidates may select from courses in the History 4800 series, a list which changes from year to year.
5. Studies in Historical Skills and Methods (16 units)
 - A. Hist. 1000, 4030, and 4031
 - B. Any upper division course in history which makes special and substantial use of such non-literary sources or materials as films, slides, art, or music. Courses available which meet this requirement are:
Hist. 3107, 3108, 3114, 3211, 3212, 3215, 3221, 3222, 3223, 3231, 3232, 3321, 3322, 3323, 4020.
6. In addition to following the pattern set above, candidates must maintain a roughly equal balance between course work in United States history, European history, and the history of one of the remaining geographical regions of the world. For example, in completing the 24 unit total required in sections 1, 2, and 4, candidates should take two courses in U.S. history, two in European history, and two in the history of one other geographical region.
7. Candidates must maintain an overall G.P.A. of 2.5 in courses taken to complete the waiver program. No courses with "D" grades may be used.
8. Candidates with comparable programs taken at other colleges and universities shall also be recommended a waiver in the Single Subject Major in History.

II Single Subject Waiver Program in Social Science

1. Introductory Surveys in European History (8 units)

Hist. 1011 and 1012
2. Two Upper Division Courses in Each of Three Fields of History, the Fields to Include the United States, Europe, and One Other Region (24 units)
3. Studies in Historical Skills and Methods (8 units)

Hist. 4030 and 4031
4. A Minimum of 20 Units in One of the Social and Behavioral Sciences

The courses offered at CSUH which may be used to meet this requirement are listed by discipline below. Additional courses taken at CSUH or other institutions may be substituted but only with the consent of a designated waiver program adviser.

 - A. Anth. 1000, 2200, 2300, 3220, 3240, 3300, 3400, 3460, 3500, 3820, 4420, 4600, *and* any course from those listed under the *University Catalog* heading "Intermediate-Regional Anthropology" which corresponds to one or more of the three historical fields required in the History portion of the waiver program. (For example, a student who selects Modern Europe as a field might take Anth. 3590. Ethnography of Europe.)
 - B. Econ. 1000, 2301, 2302, 3151, 3162, 3200, 3310, 3500, 3680, 3685, and 4110.
 - C. Geog. 1000, 2100, 2300, 2310, 2410, 3000, 3300, 3320, 3330, 3335, 3340, 3350, 4300, 4500, *and* any course listed under the *University Catalog* heading "Intermediate-Regional Geography" which corresponds to one or more of the three fields required in the History portion of the waiver program. (For example, a student who selects Modern Europe as a field might take Geog. 3590. Geography of Europe.)
 - D. Pol.Sci. 1201, 1202, 2011, 2012, 4320, 4441, 4442, 4713, 4731, 4732, *and* any course from those listed under the *University Catalog* heading "Comparative Government and Politics" which corresponds to one or more of the three historical fields required in the History portion of the waiver program (for example, a student who selects Modern Europe as a field might take Pol.Sci. 4223. Government and Politics of Western Europe), *and* any course from those listed under the *University Catalog* heading "American Government and Politics" between and including courses 3111 through 4380.
 - E. Psych. 2000, 2010, 3250, 3500, 3510, 3520, 3530, 4320, 4345, 4346, 4360, 4410, 4420, and 4630.

- F. Soc. 2000, 2050, 3100, 3200, 3300, 3420, 3430, 3500, 3520, 3710, 4440, 4450, 4515, and 4530.
- In addition to following the patterns set above, candidates must maintain a G.P.A. of 2.5 in all courses taken to complete the waiver program. No courses with "D" grades may be used.
 - Candidates with comparable programs taken at other colleges and universities shall also be recommended a waiver in the Single Subject Major in Social Science.

Liberal Studies Major

History Emphasis Within the Social Sciences Option

Students in the Liberal Studies Major with an option in Social Science may choose History as one of the two required fields. In addition to completing the "core" units, candidates for credentials or students in the Liberal Arts Track may take one of several patterns of courses to establish a History field:

I. *Credential Track* (path for credential after graduation)

1. History as a First Field

Requirements: Hist. 4031; 9 four-unit History electives (at least 5 courses must be upper division, and at least 5 of the following groups must be represented: U.S. History, Latin American History, European History, Ancient and Medieval History, Asian History, History of Minority Groups, California History).

2. History as a Second Field

Requirements: Hist. 4031; 5 four-unit History electives chosen from four of the following groups: U.S. History, Latin American History, European History, Ancient and Medieval History, Asian History, History of Minority Groups, California History.

II. *Credential Track* (path for provisional credential at graduation): the same requirements as above, with *one* less elective course.

III. *Liberal Arts Track*

1. History as a First Field

Requirements: Hist. 4031; 9 four-unit courses, at least 5 of which must be upper division courses, and at least 4 of the following groups must be represented: U.S. History, Latin American History, European History, Ancient and Medieval History, Asian History.

2. History as a Second Field

Requirements: Hist. 4031; 5 four-unit courses, at least 3 of which must be upper division, from four of the following groups: U.S. History, Latin American History, European History, Ancient and Medieval History, Asian History.

ADVANCED PLACEMENT, HISTORY

History students who have successfully completed the advanced-placement course in U.S. history in high school and have earned a score of "3," "4" or "5" on the Advanced Placement Examination* will be granted unit credit for Hist. 1101 (4 units) and Hist. 1102 (4 units). Students who have completed the advanced-placement course in European history in high school and have earned a score of "3," "4" or "5" on the Advanced Placement Examination,* will be granted unit credit for Hist. 1011 (4 units) and Hist. 1012 (4 units). No letter grade will be assigned or computed in the student's grade-point average.

Master of Arts in History

GENERAL INFORMATION

The Department of History offers graduate study leading to the degree, Master of Arts in History, with a choice of three programs: History (thesis and examination options), Media and History, and History Teaching. The candidate is responsible for the fulfillment of the general requirements stated in this catalog as well as the specific departmental requirements stated here and, more fully, in the brochures describing each program available from the Department of History upon request.

* This is prepared and offered by the College Entrance Examination Board.

Thesis Option

To receive the Master of Arts degree in History (Thesis Option) the student must meet the following requirements:

- Complete 45 units of upper-division and graduate courses in History including the following: Hist. 6030 (Graduate Historiography) and four graduate *Conference Courses* in two or three of the following areas: United States history, Asian history, Latin American history, ancient and medieval history, or modern European history, Hist. 6010 (Seminar in History), 8 units of Hist. 6910 (Thesis Research), and an approved thesis. One *Conference Course* must be in the general area of the thesis topic.
- Demonstrate a reading knowledge of a foreign language considered applicable to a student's work in history.

Examination Option

To receive the Master of Arts degree in History (Examination Option) the student must meet the following requirements:

- Complete 45 units of upper-division and graduate courses in History including the following: Hist. 6030 (Graduate Historiography) and five graduate *Conference Courses* in two or three of the following areas: United States history, Asian history, Latin American history, ancient and medieval history, or modern European history; and Hist. 6010 (Seminar in History).
- Pass comprehensive written examinations in major and minor fields of history as prescribed by the Department.
- Demonstrate a reading knowledge of a foreign language considered applicable to a student's work in history.

Media Option

To receive the Master of Arts degree in History (Media Option) the student must meet the following requirements:

- Complete 45 units of upper-division and graduate course work including the following: History 6030 (Graduate Historiography) and four graduate *Conference Courses* in two or three of the following areas: United States history, Asian history, Latin American history, ancient and medieval history, or modern European history; History 6020 (Seminar in Media and History); 5 units of History 6899 (Special Project); an approved media project; 15 units of electives in history or mass communication. The project may be offered in film, slide or sound mediums, or in a combination of these with or without written supplementary teaching materials.
- Demonstrate a reading knowledge of a foreign language considered applicable to a student's work in history. If the student is at least 30 years old or is five or more years beyond the completion of the Bachelor's degree at the time of first admission to the program, or enters the program with a Master's degree in History, this requirement may be waived.

Teaching Option

(not offered 1978-1979)

There are two programs available in this option. One is designed for in-service teachers who already hold teaching credentials and the other for pre-service teacher trainees.

- The In-Service Program requires the student to:
 - Complete 45 units of upper division and graduate courses including the following: Hist. 6030 (Graduate Historiography), four graduate *Conference Courses*, 2-4 units of Hist. 6900 (Independent Study), and the seminar sequence, "Designing, Preparing, and Teaching the History Curriculum" (Hist. 6801, 6802, and 6803);
 - Demonstrate a reading knowledge of a foreign language considered applicable to the student's work in history. (If the student is at least 30 years old or is five or more years beyond the completion of the Bachelor's degree at the time of first admission to the program this requirement will be waived.)
- The Pre-Service Program requires the student to:

- a. Complete 35–37 units of graduate history courses including: Hist. 6030 (Graduate Historiography), four graduate *Conference Courses*, and 2–4 units of Hist. 6900 (Independent Study), and the seminar sequence, “Designing, Preparing, and Teaching the History Curriculum” (Hist. 6801, 6802, 6803), with concurrent enrollment in student teaching during the two quarters in which Hist. 6802 and 6803 are taken;
- b. Complete a third, successive quarter of student teaching, plus the other courses in the Department of Teacher Education which meet teaching credential requirements mandated by the Ryan Act;
- c. Demonstrate a reading knowledge of a foreign language considered applicable to the student’s work in history. (If the student is at least 30 years old or is five or more years beyond the completion of the Bachelor’s degree at the time of first admission to the program this requirement will be waived.)

Admission to the Programs

To be admitted to the programs a student is expected to have:

1. an undergraduate G.P.A. of no less than 2.5 in all courses and a G.P.A. of no less than 3.0 in all history courses;
2. a bachelor’s degree with a major in history (including a course in historical methodology similar to Hist. 4031) or the equivalent of a major in history at Cal State.

An applicant who meets requirements 1 and 2 may submit scores of the Graduate Record Examination (Verbal and Advanced Test 57) and/or two letters regarding academic potential. An applicant who fails to meet either requirement 1 or 2 *must* submit the Graduate Record Examination results and the two letters of recommendation.

Maintenance of Classified Standing

To maintain classified standing, a student must have a grade-point average of 3.0 or higher on all work taken in the approved program of study, whether at California State University, Hayward or at any other college or university. Only grades of A, B, and C are acceptable for courses applicable to degree requirements. A candidate whose grade-point average drops below 3.0 shall be removed from classified status and be placed in probationary status until recommended by the department for return to classified status. Failure to return to classified status in two additional quarters of study (or following completion of 15 additional quarter units) shall result in the candidate’s being removed from the departmental program or being recommended for removal.

Advancement to Candidacy

Before advancement to candidacy a student must:

1. be a classified graduate student in good standing;
2. have completed 12 quarter units considered applicable by the History Department toward the degree program;
3. have completed Hist. 6010 (Graduate Seminar) or Hist. 6020, or Hist. 6801; and Hist. 6030 (Graduate Historiography);
4. have satisfied the foreign language requirement.

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.

UNDERGRADUATE COURSES

LOWER DIVISION COURSES

1000. The Nature of the Study of History (4)

A seminar dealing with the nature of historical evidence, problems of historical interpretation and criticism, theories of history, bibliographical techniques and methods of research. (A)

1011. History of Europe I (4)

European history from ancient times to the end of the Middle Ages (c. 1400 A.D.) (Y)

1012. History of Europe II (4)

European history from the end of the Middle Ages to the present. (Y)

1101. History of the United States to 1865 (4)

A survey of the development of the American nation from colonial times to the close of the Civil War. Credit for this course, when combined with credit for Hist. 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 1865 (4)

A survey of American history from the Civil War to the present. Credit for this course, when combined with credit for Hist. 1101, meets statutory requirements in U.S. History, U.S. Constitution, and California State and Local Government. (A)

1108. History of the Americas to Independence (4)

A comparative history of the discovery and colonization of major areas of the New World to the wars of Independence. Credit for this course, when combined with credit for Hist. 1109, meets statutory requirements in U.S. History, U.S. Constitution, and California State and Local Government. Two hrs. lect., 2 hrs. disc. (Y)

1109. History of the Americas Since Independence (4)

A comparative history of the United States, Canada and the major states of Latin America since the wars of independence. Credit for this course, when combined with credit for Hist. 1108, meets statutory requirements in U.S. History, U.S. Constitution, and California State and Local Government. Two hrs. lect., 2 hrs. disc. (Y)

1920–1999. Directed Group Study (1–4)

2000. History of Popular Culture (4)

Studies in the popular culture of the Western World. May be repeated once for additional credit with another instructor, or by permission with the same instructor. (Y)

UPPER DIVISION COURSES

EUROPE

3107. History of Ancient Greece (4)

From the Bronze Age to the death of Socrates. (formerly Hist. 3111) (Y)

3108. History of the Roman Republic and Empire (4)

From the foundation of Rome to the decline of the Empire. (formerly Hist. 3112) (Y)

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. (formerly Hist. 3104) (Y)

3121. Medieval Mediterranean Civilization: 527–1453 (4)

Analysis of the continuity and change in Mediterranean societies (Byzantine, Muslim and Western Christian). Attention directed toward comparative institutions and their economic and political relations. (formerly Hist. 3105) (Y)

3122. Byzantine History: 527–1453 (4)

A study of the growth of the distinctive Byzantine civilizations out of Christian, Graeco-Roman, and Oriental institutions and ideas. (formerly Hist. 3106) (Y)

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. (formerly Hist. 3115) (Y)

3128. Europe in the Later Middle Ages (4)

Europe from the 11th century to the 15th century. (formerly Hist. 3116) (Y)

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. (formerly Hist. 4125) (Y)

3132. Renaissance Magic (4)

The occult tradition in the Renaissance and its Hermetic, Pythagorean, Orphic, and Neoplatonic sources. Kabbalah 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. (Y)

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. (formerly Hist. 4126) (Y)

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. (formerly Hist. 4140) (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. (formerly Hist. 4150) (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. (formerly Hist. 4160) (Y)

3170. Europe in the 20th Century (4)

The transformation of traditional European institutions and values in the century of total war. (formerly Hist. 4180) (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. (formerly Hist. 4200)

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. (formerly Hist. 4202)

3211. Germany and East Central Europe, 1750–1900 (4)

The history of Germany and her eastern neighbors from the mid eighteenth century to the end of the 19th century. (formerly Hist. 4213) (Y)

3212. Germany and East Central Europe Since 1900 (4)

The history of Germany and her eastern neighbors since the end of the 19th century. (formerly Hist. 4214) (Y)

3215. Hitler: the Man and his Times (4)

Hitler and his personality in the context of German history. (formerly Hist. 4218) (Y)

3221. History of Russia to 1855 (4)

Survey of the history of Kievan Rus, the Mongols, and the rise of Muscovy. Increasingly detailed coverage from the 16th to the mid-19th century with emphasis on the institutions of serfdom and autocracy and on the development of the Russian Empire. (formerly Hist. 4221) (Y)

3222. History of Modern Russia, 1855–1917 (4)

Political, economic, social, and diplomatic developments from the Crimean War to the March Revolution. 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. (formerly Hist. 4222) (Y)

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. (formerly Hist. 4223) (Y)

3231. France, 850–1715: The Age of Monarchy (4)

The origins of France; feudalism, the Gothic style, and courtly love; the Hundred Year's War; the French Renaissance and the Wars of Religion; French absolutism and the Court of Versailles. (formerly Hist. 4231) (Y)

3232. France, 1715 to the Present: The Age of Revolution (4)

The Enlightenment, the French Revolution, and Napoleon; monarchy, empire and republic in the nineteenth century and after. (formerly Hist. 4233) (Y)

3241. Spain and Portugal to 1700 (4)

A history of Spain and Portugal from Visigothic times to the end of the Spanish Hapsburg dynasty. (formerly Hist. 4240) (Y)

3242. Spain and Portugal Since 1700 (4)

The historical evolution of the Iberian nations from the Bourbon dynasty to recent times. (formerly Hist. 4241) (Y)

4011. Readings in the Cultural and Intellectual History of Europe (4)

European thought in relation to its historical background. Readings, discussions and individual research. May be repeated once with another professor for additional credit.

ASIA

3300. The Great Traditions of East Asia (4)

The civilizations of China, Korea and Japan from the earliest times to the seventeenth century. Cultural, social and political topics are emphasized. (Y)

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. (Y)

3311. Traditional China (4)

China's historical patterns, cultural and institutional development, from the beginning to the 19th century. (formerly Hist. 4315) (Y)

3312. Modern China (4)

The transformation of China in the 19th and 20th centuries brought about by the Western impact. (formerly Hist. 4316) (Y)

3315. Revolutionary China (4)

China since the Communist conquest in 1949 with a consideration of the political, social, economic, and spiritual transformation of the Chinese today. (formerly Hist. 4317) (Y)

3321. Japan: Prehistory to 1477 (4)

Early archaeology and history, first political centralization, importation of Chinese culture, courtier society and civilization, the development of Japanese feudalism. (formerly Hist. 4326) (Y)

3322. Premodern Japan, 1477 to 1890 (4)

Civil war period and subsequent unification of country, the Tokugawa government, Christian missionaries in Japan, conflict with western imperialism, the Meiji Restoration. (formerly Hist. 4327) (Y)

3323. Modern Japan (4)

Emergence of Japan as an industrial and imperial power, concentrating on party politics, colonialism, militarism, and World War II. Post-war developments are also considered. (formerly Hist. 4328) (Y)

4350. Historical Literature of Asia (4)

An examination of Chinese, Japanese, Indian or Southeast Asian historiography. May be repeated with a different instructor.

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. (W, Su)

3411. The United States: Colonial Period (4)

The 13 Colonies: European background, settlement and expansion, and development to the Revolution. (Y)

3412. The United States: American Revolution (4)

The struggle for independence, 1763–1789. Intensive study of the causes of the American revolution, Confederation Period and the Constitution. (Y)

3413. The United States: The Age of Jefferson and Jackson (4)

The challenge of democracy and industrialism; the creation of a new social order. (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. (formerly Hist. 4540) (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. (Y)

3505. Spanish and Mexican California (4)

Exploration, colonization, subjection of Indians, and imposition of Spanish and Mexican institutions and culture in California; the "Californio" heritage. Does not satisfy requirement in California state and local government. (formerly Hist. 4545) (Y)

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. (formerly Hist. 4500) (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. (formerly Hist. 4504) (Y)

3521. The Old South (4)

A historical analysis of the unique social, economic, political, and cultural developments of the antebellum South. (formerly Hist. 4505)

3522. The New South (4)

A historical analysis of social, economic, political and cultural developments in the South since the Civil War. (formerly Hist. 4506)

3531. Intellectual History of the United States to 1865 (4)

American thought from the colonial period to the Civil War. The growth of political, religious, scientific, literary, and educational ideas. (formerly Hist. 4511)

3532. Intellectual History of the United States Since 1865 (4)

American thought from the Civil War to the present. The growth of political, religious, scientific, literary and educational ideas. (formerly Hist. 4512)

3535. American Social History to 1865 (4)

The development of American society from 17th century origins to the Civil War; social mobility, class structure, social movements, and institutions in American life. (formerly Hist. 4513) (Y)

3536. American Social History Since 1865 (4)

The development of American society from the Civil War to date; social mobility, class structure, social movements, and institutions in American life. (formerly Hist. 4514) (Y)

3541. History of American Economic Institutions from Federal Beginnings to 1865 (4)

The family, agriculture, corporations, transportation, finance, and government policy to the Civil War emphasizing the transformation of America from a traditional to a modern economy. (formerly Hist. 4521) (Y)

3542. History of American Economic Institutions Since 1865 (4)

Agriculture, labor and business in an urban-industrial society; impact of technology, war, and reform on the economy. America's role in the world market. (formerly Hist. 4522) (Y)

3551. U.S. International History I (4)

The international aspects of the American Revolution, the legacy of mercantilism, ideology and interest, expansion and conflict, and the impact of industrialism on American diplomacy in the late 19th century. (formerly Hist./Pol. Sci. 4530) (Y)

3552. U.S. International History II (4)

Darwinism and Imperialism, peace movements, intervention in Europe, reaction to socialism and fascism, internationalism, the Cold War, and the effect of covert operations on democratic institutions. (formerly Hist./Pol. Sci. 4531) (Y)

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. (formerly Hist. 4536) (Y)

3561. The City in American History to 1900 (4)

City in history since colonial period with emphasis on forces which established social, economic, political and demographic patterns of American urban growth in the nineteenth century. (formerly Hist. 4525) (Y)

3562. The City in American History Since 1880 (4)

The city in the twentieth century with emphasis on social, political, economic, and environmental problems of recent urbanization, metropolitan growth, and rise of urban planning. (formerly Hist. 4526). (Y)

3565. The Black Man in American History to 1877 (4)

Intensive study of the interaction between Black and White Americans to 1877; African origins, slavery, Black protest and rebellion, abolition movements, and Black participation in and contribution to society. (formerly Hist. 4515) (Y)

3566. The Black Man in American History Since 1877 (4)

Intensive study of the interaction between Black and White Americans since 1877; segregation, betrayal of the Blacks, the rise of Black Nationalism; the non-violent revolution (formerly Hist. 4516) (Y)

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. (formerly Hist. 4527) (Y)

4550. Historical Literature of the United States (4)

An investigation of historical thought in the United States. Major writers, methods of historical writing, and historical interpretations. May not be substituted for Hist. 4030.

4690. Senior Seminar in American Studies (4)

Interdisciplinary seminar in 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. (Y)

LATIN AMERICA**3555. Inter-American Relations (4)**

(See course description under History—United States.)

3600. Latin America: Colonial Period (4)

Discovery, conquest, and settlement of Latin America; independence, evolution of society and institutions to 1825. (Y)

3601. Latin America: Since 1825 (4)

Political, economic, and social development of the Latin American nations in the 19th and 20th centuries. (Y)

3611. Cultural History of Latin America (4)

The blending of Indian, European, and African cultures in Latin America from 1492 to the present; art, architecture, literature, music, and philosophy. (formerly Hist. 4647) (Y)

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. (formerly Hist. 4650) (Y)

3621. Mexico to 1821 (4)

Pre-Columbian civilizations, the Spanish conquest and development of colonial society and institutions. The independence movement. (formerly Hist. 4609) (Y)

3622. Mexico Since 1821 (4)

The development of Mexico since independence; evolution of political, economic, and social institutions. (formerly Hist. 4610) (Y)

3631. The ABC Nations of South America (4)

The development of Argentina, Brazil, and Chile in the nineteenth and twentieth centuries. (formerly Hist. 4626) (Y)

ISLAM**3701. Rise and Spread of Islamic Civilization: 622–1050 (4)**

Survey of the pre-Islamic Near East, Muhammad, early Muslim conquests, Umayyad and Abbasid Caliphates. Emphasis is on the intellectual, institutional and cultural characteristics of traditional Muslim society. (formerly Hist. 4341) (Y)

3702. Medieval Islamic History: 1050–1800 (4)

1050–1500: Turko-Mongol Domination, with emphasis upon central Asiatic invasions, mam-luk military organization, development of Islamic mysticism (Sufism); 1500–1800: The Four Rival Islamic Empires. (formerly Hist. 4342) (Y)

3703. History of the Near East and North Africa in the Nineteenth and Twentieth Centuries (4)

Decline of Ottoman Empire and western influence; Rise of Republican Turkey, comparative patterns of colonial government, Arab nationalism, Zionism, Palestine problem, creation of Israel, "de-colonization." (formerly Hist. 4343) (Y)

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. (formerly Hist. 4000) (Y)

3011. Philosophy of Science (4)

(See Phil. 3011 for course description.)

3012. History of Science (4)

(See Phil. 3012 for course description.)

3711. Ancient and Medieval Political Thought (4)

(See Pol. Sci. 3711 for course description.)

3712. Early Modern Political Thought (4)

(See Pol. Sci. 3712 for course description.)

4020. History and Film (4)

Cinematography as historiography: problems of historical reconstruction in film and sound. Prerequisite: Consent of instructor. (Y)

4030. Historiography (4)

A critical study of the development of historical writing from classical antiquity to the present. (A)

4031. Proseminar in Historical Method (4)

Introduction to the methods of historical research through the preparation of a research paper. Prerequisite: senior standing. (A)

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. (Y)

4801–4899. Special Problems in History (1–4)

Readings, discussion and research on significant historiographical problems. Prerequisite: consent of instructor.

4900. Independent Study (1–4)

Supervised study. Prerequisite: consent of instructor. (A)

4920–4999. Directed Group Study (1–4)

11-76948

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)

6020. Seminar in Media and History (5)

Problems of reconstructing history in media. Sources and methodology.* Prerequisite: consent of instructor. (Y)

6030. Graduate Historiography (4)

Intensive readings in the classics of historical writings and the philosophy of history. 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.

6801. Seminar, Designing, Preparing and Teaching the History Curriculum: Bibliography (4)

Readings and discussion in the historical literature of the teaching field: research and study guides, sources, secondary works. Changing interpretations of history. Written report.

6802. Seminar, Designing, Preparing and Teaching the History Curriculum: Curricula Methods, Evaluation (4)

Comparative study of the history curricula. Changing approaches to history teaching; content, methods, evaluation. Design of history teaching units. Student reports. *Concurrent registration in student teaching required of candidates in the M.A. (Teaching Option) plus credential program.*

6803. Seminar, Designing, Preparing and Teaching the History Curriculum: Developing and Teaching the History Unit (5)

Discussion of critical evaluation of student prepared curricula in the light of professional standards and field requirements. *Concurrent registration in student teaching required of candidates in the M.A. (Teaching Option) plus credential program.*

*Students may be required to purchase materials and pay processing costs for theses.

6899. Special Project (1-4)

Supervision of the preparation of a media project. Prerequisite: consent of instructor. May be repeated, but maximum allowable credit is five units.

6900. Independent Study (1-4)**6910. Thesis Research (1-4)**

Supervision of thesis preparation. Prerequisite: consent of instructor. May be repeated for credit. (A)

6920-6999. Directed Group Study (1-4)

HUMAN DEVELOPMENT

(Department of Human Development; School of Arts, Letters and Social Sciences)

Professor: Ivan D. Kovacs

Associate Professor: Ann J. Meyer (Chair)

Assistant Professors: Carol S. Becker, Dora Shu-fang Dien, Martin K. Feldman

Lecturers: Edward Church, Vivian Feyer, Thomas Forrest, Virginia McDowell, Roberta Schear, Kathleen Wilcox

GENERAL INFORMATION

Human development is an emerging interdisciplinary field of study. It concentrates on the development of the human organism, human experience and interaction throughout the life-span, and on the underlying structures and processes of being human. The department has an innovative major program leading to a bachelor's degree. It also offers courses which can be used to fulfill general education requirements and the special requirements of other departments.

The major program is designed for all students who are especially interested in people: children or adults, themselves and others. Although the major is listed in the social science area, it is broader in scope since it draws on disciplines which deal with biological, behavioral and sociocultural aspects of development. The major aims of the program are to:

- open up for the students the rapidly changing interdisciplinary field of human development from conception through old age, including death. Students witness and are invited to participate in the interplay of bio-medical, behavioral and sociocultural and other approaches to development.
- help students design their individual academic and professional specialty area according to their own talents and potentials, and in accordance with changing societal needs and opportunities. Students in their program-design may draw on department faculty, other departments, and the community and its various institutions.
- give students professional tools, and help them develop their interactional abilities, so that they can serve and facilitate more effectively the development of others, young or old.
- support and guide the development of individual students as whole persons. Students, individually and in cooperation with others, study and work on their own development, their abilities of cognition, problem solving and interaction, and on transcending their routine modes of seeing and doing. They aim toward the development of their consciousness, effectiveness and toward their realization of their potentials.

The major prepares students to move into the area of their choice such as research, social and human services, counseling, teaching, * corrections, or personnel. Students may work with infants, the elderly, go on to graduate schools (e.g. anthropology, law, education, psychology, social work, counseling, theology) while others seek employment or develop their own service organizations. In cooperation with Continuing Education, the department also provides an opportunity for students to earn a Certificate in Applied Gerontology (details available upon request).

The program is available on a full or part-time basis, day or night. Several courses are also tape-recorded for listening at the Human Development Study Center seven days a week, 24 hours a day, or to be checked out along with tape recorders for home use.

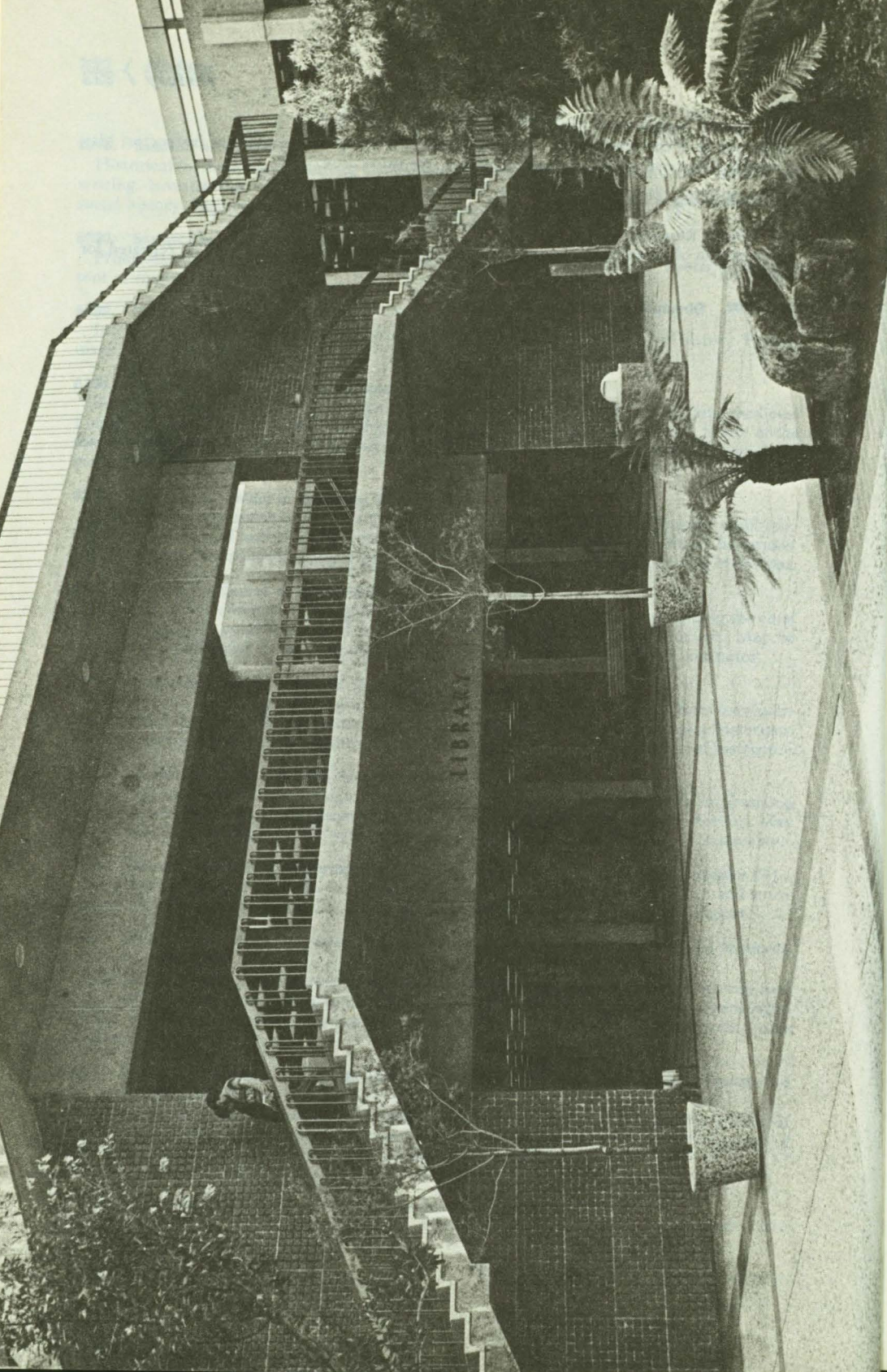
All those who are considering majoring in human development are urged to consult with a faculty adviser at their earliest convenience.

The Human Development Major Leading to a B.A. Degree

Requirements

Lower Division general education	60 units
(consult index under graduation requirements for details)	
major	20 units
(up to 20 units may be applied to general education requirements, consult with a faculty adviser)	

* It should be noted, however, that the human development major, by itself, is not an approved waiver program for teaching credential purposes.



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. It is especially advantageous to have some background in categories b and g before entering the junior program.

- a. Anthropology
- b. Human Biology, including Biochemistry, Pharmacology
- c. Child Development
- d. Economics, including Demography and Political Science
- e. Ethnic or Area Studies, Sign Language, Foreign Language
- f. Human Development
- g. Mathematics, Statistics, Philosophy, Linguistics, Communication Science
- h. Psychology
- i. Sociology
- j. Speech Pathology

Additional categories (e.g., Western Heritage, gerontology, the handicapped, phenomenology) may be approved by the department.

Upper Division

General education 16 units
(consult index under graduation requirements)

Major..... 60 units
12 units may be applied to general education requirements, consult with a faculty adviser)

- a. Human development core sequence (36 units)
 - HDev. 3001, 3002, 3003. Behavioral and Biological Approaches in Human Development I, II, III—(9 units)
 - HDev. 3011, 3012, 3013. Sociocultural 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)

The sequence is available for day or night students, full or part-time.

The department may be able to make space reservations in advance for the sequence.

In most of these courses faculty members team teach to bring to bear their different backgrounds on the same topics. Faculty members come from various disciplinary areas such as anthropology, linguistics, medicine, psychology and sociology, and have different orientations such as phenomenological, psychoanalytic, structuralist, etc. Small seminars, laboratory and field assignments are to help students to integrate their learning and develop their cognitive, interactional and problem solving abilities.

- b. After completion of the human development core sequence students specialize in an area of study such as development of an age group, or in a socio-cultural group, a special aspect of, approach to, or problem area of development, etc.

Specialized sequence (12 units)

Twelve units of upper division courses. Selection must be made under departmental faculty guidance.

Senior projects (12 units)

Twelve units of individual and cooperative study. The courses are:

- HDev. 4880. Senior Group Project—4 units
- HDev. 4890. Senior Individual Project—4 units
- HDev. 4820 or any other upper division HDev. course(s)—4 units

Unit Summary

Major: courses in Human Development	48-80	} 80 units
courses in supporting fields	0-32	

Honors Program

Students with a major and overall G.P.A. of at least 3.5 may apply for acceptance in the Departmental Honors Program while taking HDev. 3032. Honors students take their 12 unit Specialized Sequence in the Department Honors' Sequence. They graduate with Departmental Honors if they maintained a 3.5 or higher major and overall G.P.A. and obtained a B or above in their Senior Individual Project.

Liberal Studies Option in Human Development

Consult index under Liberal Studies for description of general program. Students choosing an option in human development are urged to see a liberal studies adviser in the human development department. Advance arrangements for enrolling in HDev. 3000-level courses may be necessary.

Credential Track (path for students seeking provisional credential as undergraduates)

Area II A

- Biol. 2040 (4 units)
- Chem. 1100 (5 units)

Area V A

- HDev. 3001 (3 units)
- HDev. 3002 (3 units)
- HDev. 3011 (3 units)
- HDev. 3012 (3 units)
- HDev. 3021 (3 units)
- HDev. 3031 (3 units)

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

Area II A

- Biol. 2040 (4 units)
- Chem. 1100 (5 units)

Area V A

- HDev. 3001 (3 units)
- HDev. 3002 (3 units)
- HDev. 3011 (3 units)
- HDev. 3012 (3 units)
- HDev. 3021 (3 units)
- HDev. 3022 (3 units)
- HDev. 3031 (3 units)
- HDev. 3032 (3 units)
- Upper division HDev. Electives (4-9 units)

Single Subject Waiver Program: Social Science

The following program has been approved by the State Commission for Teacher Preparation and Licensing as a waiver of the examination in the Single Subject Social Science.

Lower Division 20 units

These requirements must include 4 units in Economics, 8 units in either History or Political Science, and the remainder to be selected from the following areas with no more than 8 units in a single department.

- a) Anthropology 1000, 2100, 2300, 2800
- b) Economics 1000, 2301, 2302
- c) Geography 1000, 2100,* 2300,* 2310,*

* Especially recommended.

- d) History 1000, 1101-2, 1108-9 (the last two sequences satisfy the Code Requirements)
 e) Political Science 1201-2 (satisfy Code Requirements)
 f) Psychology 1500, 2000, 2010
 g) Sociology 2000, 2050, 2200, 2400

Upper Division 72 units

- HDev. 3001-2-3 (9 units)
 HDev. 3011-2-3 (9 units)
 HDev. 3021-2-3 (9 units)
 HDev. 3031-2-3 (9 units)
 HDev. 4820 (or other upper division HDev. course), 4880, 4890 (12 units)
 24 units selected from the following list with no more than 12 units in a single department

- a) Anthropology (3000,* 3100 *-1-2, 3110, 3200,* 3220, 3240, 3250, 3300,* 3330, 3350, 3400, 3430, 3440, 3460, 3500,* 3505, 3515, 3518, 3520, 3535, 3540, 3560, 3570, 3575, 3590, 3595, 3700, 3710, 3720, 3730, 3740, 3820, 3830, 3850, 3890, 4240, 4245, 4330, 4450, 4810, 4820.
 b) Economics (3000, 3005 * or 3310,* 3151,* 3161, 3200,* 3210, 3500,* 3680, 4000, 4110, 4520.
 c) Geography (3000,* 3100,* 3300,* 3320,* 3330,* 3335, 3340, 3350, 3400,* any 3500 series course, 3600,* 4130, 4300,* 4305, 4320, 4350, 4400, 4500, 4610, 4700, 4800.
 d) History (First course must be in American History; second course, in European History; third course, Asian or Latin American History)
 e) Political Science (3100,* 3111, 3112, 3120, 3130, 3222, 3223, 3224, 3230,* 3241, 3248, 3260, 3280, 3310, 3330, 3340, 3410,* 3411, 3412, 3441, 3442, 3500,* 3503, 3505, 3520, 3550, 3570, 3580, 3711, 3712, 3713, 3720, 3731, 3732, 4171, 4450.)
 f) Psychology (3050, 3100,* 3200,* 3250,* 3310, 3320, 3330, 3500,* 3510,* 3520,* 3530, 4200,* 4210,* 4220,* 4300,* 4310, 4320, 4330, 4345, 4346,* 4350,* 4360, 4390, 4410,* 4420, 4430,* 4450, 4610,* 4620,* 4730,* 4740, 4790.
 g) Sociology (3100,* 3200,* 3300,* 3310,* 3410,* 3415, 3416, 3420,* 3430,* 3500,* 4420, 4430, 4440, 4450, 4455, 4460, 4470, 4515, 4740, 4750.

Single Subject Waiver Program: Life Science

The following program has been approved by the State Commission for Teacher Preparation and Licensing as a waiver of the examination in the Single Subject Life Science.

Lower Division 46 units

- Biol. 1101-2-3 (15)
 Chem. 1101-2-3, 2301-2 (23)
 Math. 1130, 1300, or 1304 (4)
 Physics 1700-80 (4)

Upper Division 68 units

- HDev. 3001-2-3, 3011-2-3 (18)
 HDev. 3021-2-3 (9)
 HDev. 3031-2-3 (9)
 HDev. 4820 (or other Upper Division HDev. course), 4880, 4890 (12)
 16 units from Biol. 3110, 3120, 3130, 3140, 3150 (16)
 Stat. 3031 (4)

* Especially recommended.

COURSES

1920-1999. Directed Group Study (1-4)

2001. Human Development in Contemporary Society (4)

Introduction to the study of social and environmental problems influencing human development. Two hrs. lect., 2 hrs. disc. (Y)

2005. Foundations and Problems in the Study of Human Development (4)

Introduction to the problems in the scientific study of human development. Two hrs. lect. 2 hrs. disc. (Y)

3001. Behavioral and Biological Approaches in Human Development I (3)

Study of human development, utilizing concepts and methodologies of the behavioral and biological sciences. Three hrs. lect. (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. Three hrs. lect. (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. Three hrs. lect./disc. (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. Three hrs. lect./disc. (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. Three hrs. seminar. (F)

3032. Process of Human Development II (3)

Continuation of HDev. 3031, which is prerequisite. Concurrent enrollment in HDev. 3022 required. Three hrs. seminar. (W)

3033. Process of Human Development III (3)

Continuation of HDev. 3032, which is prerequisite. Concurrent enrollment in HDev. 3023 required. Three hrs. seminar. (Sp)

3800. Human Development and Interaction (4)

Study of human development in interpersonal contexts. Two hrs. lect., 2 hrs. disc. (Y)

4510. Cognitive Development (4)

The development of cognitive functions from infancy through old age. (Y)

4520. Language Acquisition and the Symbolic Function (4)

A thorough study of the development of representational systems; play, imagery, drawing. Major emphasis will be on the development of language. Prerequisite: HDev. 4510. (Y)

4530. Developmental Dysfunction in Language and Cognition (4)

An examination of cognitive and linguistic dysfunctions; relevant research paradigms, theories and their application. Prerequisites: HDev. 4510 or 4520. (Y)

4800. Seminar in Child Development Research (2)

Advanced individual and group research in child development. Concurrent registration in HDev. 4810 required. Prerequisites: senior standing and HDev. 3022. Two hrs. seminar. (Y)

4810. Field Study of Child Development (2)

Supervised individual and group study of children: development and behavior. Understanding of research through replication and application of research studies to children in groups. Concurrent registration in HDev. 4800 required. Prerequisites: senior standing and HDev. 3022. Six hrs. lab. (Y)

4820. Advanced Study in Human Development (4)

Advanced seminar on special problems in development. Prerequisites: senior standing and HDev. 3022. Four hrs. seminar. (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. Four hrs. seminar. (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. Four hrs. seminar. (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)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)**

INTERNATIONAL PROGRAMS

The California State University and Colleges (CSUC) offers opportunities for students to pursue their studies at a distinguished foreign university or special program center. Under the auspices of the CSUC Office of International Programs, participants in this program are concurrently enrolled at their home campus, where they earn academic credit and maintain campus residency, and at an overseas institution of higher education.

Cooperating universities abroad include the University of Provence, France; the Universities of Heidelberg and Tübingen, Germany; the Hebrew University of Jerusalem in Israel; the University of Florence, Italy; the Universidad Ibero-Americana, Mexico; the Universidad católica, Peru; the Universities of Granada and Madrid, Spain; the University of Uppsala, Sweden; Lincoln University College of Agriculture and Massey University, New Zealand; and Waseda University of Japan. In the United Kingdom, cooperating universities (which may vary from year to year) include, among others, Aberdeen, Dundee, Edinburgh, Bangor, Heriot-Watt, Leicester, London, Manchester, Nottingham, Oxford, Liverpool, Lampeter, Sheffield, and Strathclyde. In addition, CSUC students may attend a special program in Taiwan, Republic of China, or an architecture program in Copenhagen, Denmark.

Eligibility for application is limited to those students who will have upper division or graduate standing by September 1979 at a CSUC campus; who have demonstrated the ability to adapt to a new cultural environment; and, who, in the cases of France, Germany, Mexico, Peru, and Spain, will have completed at least two years of college-level study in the language of instruction at the host university, or possess equivalent knowledge of the language. At the time of application, students must have a minimum cumulative grade point average (GPA) for all college-level work of 2.75, except for the programs in Israel, New Zealand, Peru, and the United Kingdom where a minimum GPA of 3.0 is required. Selection is competitive and is based on home campus recommendations and the applicant's academic record. Final selection decisions are made by a statewide committee of faculty members, except for the programs in New Zealand and the United Kingdom where final selections are made by the respective host universities.

The International Programs supports all tuition and other academic and administrative costs overseas for each of its participants to the same extent that such funds would be expended to support similar costs in California. Students assume costs for pre-departure orientation, insurance, transportation, housing, and meals. Home campus registration and other fees and personal incidental expenses or vacation travel costs while abroad are also paid by the student. Non-resident students are subject to non-resident fees. The Office of International Programs collects and administers funds for those items which the program must arrange or can negotiate more effectively, such as home campus fees, orientation costs, insurance, outbound transportation, and, in some centers, housing. International Programs participants may apply for any financial aid available at their home campuses, except for campus work-study.

Applications for the 1979-80 academic year must be submitted before February 9, 1979, except for New Zealand and the United Kingdom. Applications for the New Zealand program must be submitted by May 11, 1979, for participation during calendar year 1980. (The academic year in New Zealand begins in February and ends in October.) United Kingdom applications must be submitted by January 5, 1979.

Detailed information and application materials may be obtained from Dr. Yole Correa-Zoli, CSUH Academic Council Representative (AD B273) or the Coordinator of International Programs in the Office of Undergraduate Studies (AD 873); further information may also be obtained by writing to The California State University and Colleges International Programs, 400 Golden Shore, Suite 300, Long Beach, California 90802.

Courses

Courses taken by students enrolled in the International Programs are shown on the CSUH transcript in terms of CSUH catalog designations. In the absence of equivalents, courses are shown on CSUH transcripts as follows:

- (Dept.) 2000 IP (course title) Lower Division
- (Dept.) 4000 IP (course title) Upper Division
- (Dept.) 6000 IP (course title) Graduate

LATIN AMERICAN STUDIES

(Latin American Studies Committee; School of Arts, Letters, and Social Sciences)

Professors: Herbert Eder (Director), Robert Miller, Virgil Salera, Mark Van Aken, John H. Vann

Associate Professors: H. Glynn Custred, Sherman Lewis, Rosa Reeves, Thomas Tomanek, Donald O. Warrin

The major in Latin American Studies offers students an interdisciplinary, liberal arts program for such professionally-oriented fields as business and foreign service, and prepares students for graduate work in selected fields. Members of the Committee on Latin American Studies serve as advisers for this program. Successful completion of the requirements leads to the B.A. degree in Latin American Studies.

Requirements

- I. Complete the 76-unit requirement in general education. It is recommended that students take History 1108 and 1109 to satisfy code requirements in U.S. History, U.S. Constitution, and State and Local Government.
- II. Demonstrate a reading knowledge of Spanish or Portuguese. Proficiency may be demonstrated either by two years of college-level course work or by examination.
- III. Complete 52 units according to the following pattern:
 - A. Required courses: Hist. 3600, Hist. 3601, and FLan. 3401, or FLan 3851.
 - B. Two courses (8 units) in Latin-American (Spanish-American and/or Brazilian) literature. (No course in English translation may be counted.)
 - C. Two courses, each in a different discipline (for a total of 8 units), selected from the following courses:
 - Anth. 3510. South America
 - Anth. 3515. Mexico and Central America
 - Geog. 3510. Geography of Mexico, Central America and the Caribbean Islands
 - Geog. 3515. Geography of South America
 - Hist. 3611. Cultural History of Latin America
 - Pol. Sci. 3280. Political Systems of Latin America
 - Pol. Sci. 3580. Development and Revolution in the Americas
 - Elective *
 - D. Six courses (24 units) of program electives from the following courses:
 - Anth. 3510. South America
 - Anth. 3515. Mexico and Central America
 - Geog. 3510. Geography of Mexico, Central America and the Caribbean Islands
 - Geog. 3515. Geography of South America
 - Hist. 3505. Spanish and Mexican California
 - Hist. 3555. Inter-American Relations
 - Hist. 3615. Social Revolution in Latin America
 - Hist. 3621. Mexico to 1821
 - Hist. 3622. Mexico Since 1821
 - Hist. 3631. The ABC Nations of South America
 - Pol. Sci. 3280. Political Systems of Latin America
 - Pol. Sci. 3580. Development and Revolution in the Americas
 - FLan. 3461. Introduction to Spanish-American Literature Before the Nineteenth Century
 - FLan 3462. Introduction to Spanish-American Literature: 19th Century Romanticism and Modernism
 - FLan. 3463. Introduction to Spanish-American Literature: From 1910 to the Present
 - FLan. 3495. Spanish-American Culture and Civilization
 - FLan. 3871. Introduction to Brazilian Literature

* Any course certified by an adviser to have suitable Latin American content.

- FLan. 3879. Modern Brazilian Literature in English Translation
 FLan. 4461. The Contemporary Literature of One Spanish-American Country
 FLan. 4471. The Literature of Social Protest
 FLan. 4491. The Literature of the Mexican Revolution
 FLan 4495. A Single Movement or Theme: Spanish-American Literature Elective *

Latin American Studies Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)

Area III

Hist. 3600, Hist. 3601 and one upper division elective in Latin American history;
And

Anth. 3510, Anth. 3515 and one upper division Anthropology elective

Or

Geog. 3510, Geog. 3515 and one upper division Geography elective

Or

Pol. Sci. 3260, Pol. Sci. 3580 and one upper division Political Science elective

Area IV-E

12 units of sequential Foreign Language courses in Spanish or Portuguese

Area V. 1a

5 courses, not used above, from the following:

- Anth. 3510. Ethnography of South America
 Anth. 3515. Ethnography of Mexico and Central America
 FLan. 3461. Introduction to Spanish-American Literature Before the 19th Century
 FLan. 3462. Introduction to Spanish-American Literature: 19th Century Romanticism and Modernism
 FLan. 3463. Introduction to Spanish-American Literature: From 1910 to the Present
 FLan. 4461. The Contemporary Literature of One Spanish-American Country
 FLan. 4471. The Literature of Social Protest
 FLan. 4491. Novel of the Mexican Revolution
 Geog. 3510. Geography of Mexico, Central America, and the Caribbean Islands
 Geog. 3515. Geography of South America
 Hist. 3555. Inter-American Relations
 Hist. 3615. Social Revolution in Latin America
 Hist. 3621. Mexico to 1821
 Hist. 3622. Mexico Since 1821
 Hist. 3631. The ABC Nations of South America
 Pol. Sci. 3280. Political Systems of Latin America
 Pol. Sci. 3580. Development and Revolution in the Americas

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

Demonstrate a reading knowledge of Spanish or Portuguese. Proficiency may be demonstrated either by two years of college-level work or by examination. Foreign language courses may be counted as follows:

Area I-C-8 units

Area IV-E-12 units

Area V.2a-4 units

Area III

Hist. 3600, Hist. 3601 and one upper division elective in Latin American history;

And

Anth. 3510, Anth. 3515 and one upper division Anthropology elective

Or

Geog. 3510, Geog. 3515 and one upper division Geography elective

Or

Pol. Sci. 3280, Pol. Sci. 3580 and one upper division Political Science elective

* Any course certified by an adviser to have suitable Latin American content.

Area V.2a

FLan. 3401 or 3851 One Foreign Language course and 5 courses not used above from the following list; *or* 6 courses or used above from the following list:

- Anth. 3510. Ethnography of South America
 Anth. 3515. Ethnography of Mexico and Central America
 FLan. 3461. Introduction to Spanish-American Literature Before the 19th Century
 FLan. 3462. Introduction to Spanish-American Literature: 19th Century Romanticism and Modernism
 FLan. 3463. Introduction to Spanish-American Literature: From 1910 to the Present
 FLan. 4461. The Contemporary Literature of One Spanish-American Country
 FLan. 4471. The Literature of Social Protest
 FLan. 4491. Novel of the Mexican Revolution
 FLan. 4495. A Single Movement or Theme: Spanish-American Literature
 Geog. 3510. Geography of Mexico, Central America and the Caribbean Islands
 Geog. 3515. Geography of South America
 Hist. 3555. Inter-American Relations
 Hist. 3621. Mexico to 1821
 Hist. 3622. Mexico Since 1821
 Hist. 3631. The ABC Nations of South America
 Pol. Sci. 3280. Political Systems of Latin America
 Pol. Sci. 3580. Development and Revolution in the Americas

Single Subject Waiver Program: Social Science

The Latin American Studies Major has been approved by the State Commission for Teacher Preparation and Licensing as a waiver of the examination in the Single Subject Social Science.

LIBERAL STUDIES

(Liberal Studies Committee, Interdisciplinary Programs)

Professors: Rolf W. Benseler, John K. Davis, Herbert M. Eder, Edward E. France, Martin B. Friedman, Reuben Mehling, Charles W. Merrifield, Richard C. Raack (Chair), Lorenzo H. Snow

Associate Professors: Peter J. Claus, Carl J. Eberhard, Richard L. Floyd, Donald B. Muir, Richard J. Orsi (Co-Chair), Thomas H. Pagenhart, Rosa E. Reeves, Marvin R. Winzenread, Michael M. Wood

Assistant Professors: Rhoda L. Agin, Carol S. Becker, Armando Gonzales

Lecturer: Herminio C. Rios

GENERAL INFORMATION

The major has two tracks suited to its two objectives. The first objective is to produce a liberally educated graduate. Both tracks are designed to achieve this. Both are planned to guarantee breadth of academic experience and to preserve a reasonable amount of depth and rigor in a single academic discipline or study area. The Liberal Studies major thus offers not only a good undergraduate education but also serves as preparation for careers requiring advanced professional training (e.g., law, medicine, business, architecture, teaching).

The second track follows the objectives of the first, and adds undergraduate professional studies organized to fit the needs of the prospective teacher in training for the Multiple Subject Teaching Credential. The student who majors in Liberal Studies under this program can expect to gather a useful store of information and observe and participate in systematic processes of thinking about just those subjects which he or she will be expected to teach.

The student who successfully completes one of the following tracks and who amasses 186 quarter units (of which 60 units must be upper division courses) and who has met the Code requirement in U.S. History, U.S. Constitution, and State and local governments will be assumed to have met all graduation requirements at the University, including those of the major and the general education program. The track for credential candidates described below has been approved by the State Commission on Teacher Preparation and Licensing as an alternative to the Commission examination.

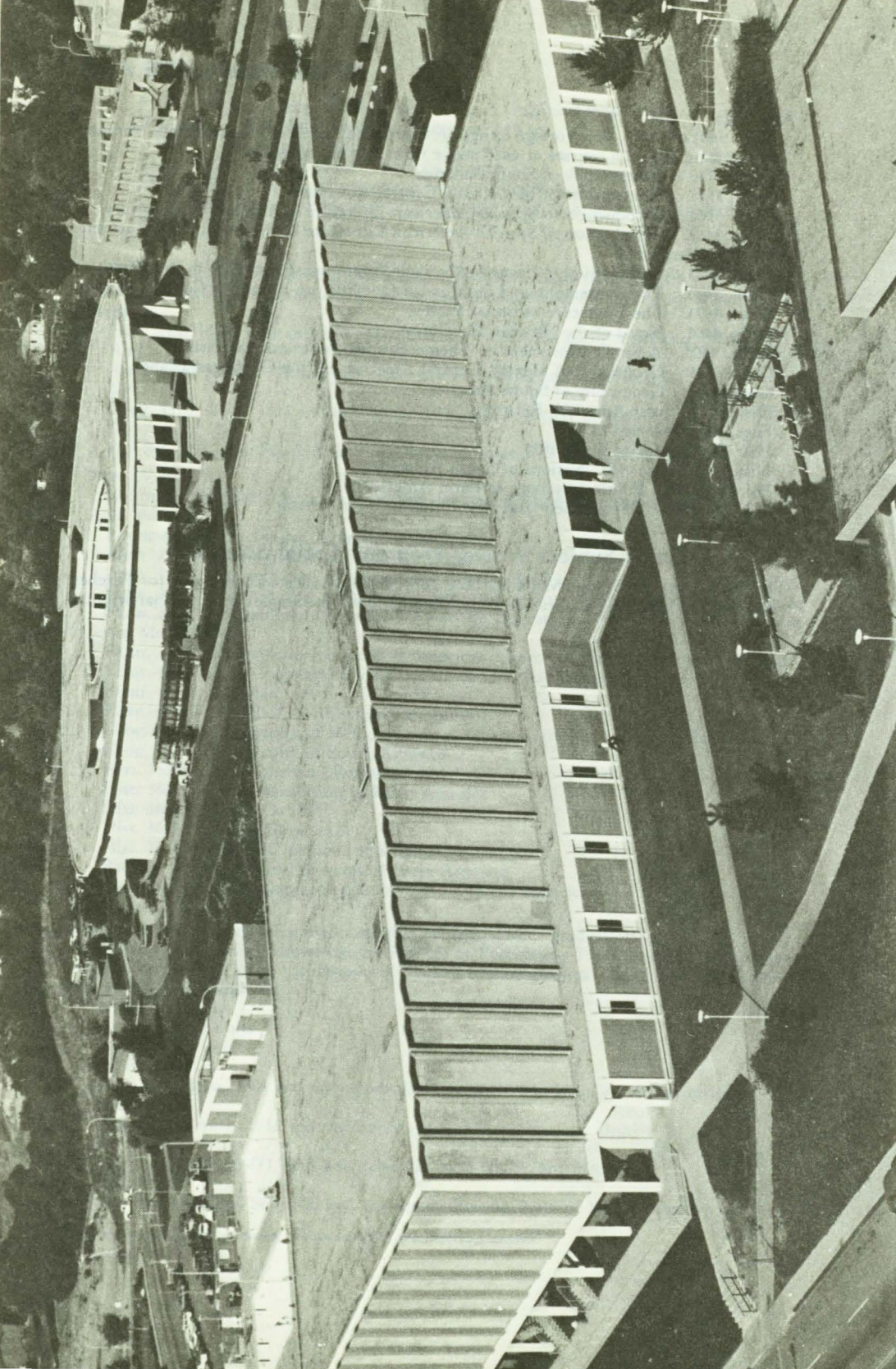
THE UNUSUAL NATURE OF, AND VARIETY OF OPTIONS IN, THE LIBERAL STUDIES MAJOR REQUIRE STUDENTS TO SEEK ADVISING AT THE BEGINNING OF THEIR ENROLLMENT AND REGULARLY THEREAFTER. EACH DEPARTMENT OFFERING AN OPTION IN THE MAJOR HAS AN ADVISER FOR LIBERAL STUDIES. CHECK WITH DEPARTMENT OFFICES FOR THE NAMES OF ADVISERS.

Options

The following options are available to Liberal Studies majors:

Art	Speech
Bilingual/Cross Cultural	Speech Pathology and Audiology
Biological Science	Social Science; The Social Science option allows the student to concentrate in any two of the following disciplines:
Black Studies	Anthropology
Chemistry	Economics
Drama	Geography
Earth Sciences	History
English	Political Science
Foreign Languages	Psychology
Human Development	Sociology
Latin American Studies	
Mass Communication	
Mathematics	
Music	

(See departmental sections of this catalog for description of options, except for the Bilingual/Cross Cultural Option which appears at the end of this section.)



Credit/No Credit Courses

Liberal Studies majors may use courses in which they have received a "CR" grade to satisfy major requirements in the following fashion: One CR/NC course may be used in each of areas I through IV. No CR/NC course may be used to satisfy the requirements for the option (Area V A).

Western Heritage

Western Heritage courses may be counted in the Liberal Studies major in the following way:

G.S. 1001, 1002 and 1003:

All 3 quarters

Area I-A: As a substitute for English 1001 (4 units) or one elective course in Basic Subjects (4 units)

Area III: As one lower division social science course (4 units)

Area IV-E: As one humanities elective (4 units)

Any 2 quarters

Area III: As one lower division social science course (4 units)

Area IV-E: As one humanities elective (4 units)

Any 1 quarter

Area IV-E: As one humanities elective (4 units)

Ethnic Studies Courses

Twelve units of appropriate ethnic studies courses (offered by the Black Studies, Mexican American Studies and/or Native American Studies departments) may be used in Area III and or Area IV-E. (Consult a Liberal Studies adviser to determine which courses may be counted in which area.)

The Liberal Arts Track

Area I (32-33 units)

A. Engl. 1001, 2030, 2040, 3010 16 units

B. Spch. 1000 or English elective 4

C. Three upper-division electives in English and/or Speech. (Either one course in Social Science or History, or two courses in a single foreign language may be substituted for one or two of these elective courses.) 12-13

Area II (30-33 units)

A. 1. Biol. 1000 5 units

2. Biol. 2030 or 2040 or 3031 4

B. Two of the following groups of courses: 9-11

1. Chem. 1100 or 1101 5

2. E.Sc. 1001 and 1002; or 2101 5-6

3. Phys. Sc. 1340 5

4. Phys. 1700 and 1780; or 1001; or 2701 4-5

C. Three courses in Mathematics and/or Statistics (Math. 1110, 1300 and either Stat. 1000 or 1100 or 2400 are recommended) 12-13

Area III (32 units)

Electives in Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology. (At least three approved upper-division courses in each of two areas; see department advisers for approved courses) 32

Area IV (31 units in which one course in Social Science or History may be included in lieu of one four-unit course)

A. Art 1010 4

B. Art 1111 5

C. Drama 2010 4

D. Mus. 1008 or 1901 4

E. Electives in at least two of the following subjects: Art, Drama, Foreign Languages, Music and Philosophy 14

Area V (57-61 units)

- A. 28-33 units of approved courses in a single department or area of study in which options within the major are offered. (See departmental section of this catalog for approved courses and programs. Departments offering options may specify courses in elective portions of Areas I-IV.) 28-33
- B. 24-33 units of free electives 24-33

The Credential Track

Area I (32-33 units, of which at least 27 must be in English and Speech)

A. Composition and Grammar: Engl. 1001, 2030, 2040, 3010 16 units

B. Spch. 1000 4

C. One upper-division English literature course 4

D. Two elective upper-division courses in English * and/or in speech. (One elective course in History or one elective course in Social Science may be substituted for one of these electives.) 8-9

Area II (30-32 units)

A. 1. Biol. 1000 5

2. Biol. 2030 or 2040 or 3031 4

B. Two of the following groups of courses: 9-11

1. Chem. 1100 or 1101 5

2. E. Sc. 1001 and 1002; or 2101 5-6

3. Phys. Sc. 1340 5

4. Phys. 1700 and 1780; or 1001; or 2701 4-5

C. Math. 4021, 4022, 4023 12

Area III (32 units) **

Electives in Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology. (At least three approved upper-division courses in each of two areas; see department advisers for approved courses.) 32

Area IV (31 units, 4 of which may be taken in Social Science or History in lieu of one of the four unit courses below)

A. Art 1010 4 units

B. Art 1111 5

C. Drama 2010 4

D. Mus. 1008 or 1901 4

E. Electives in at least two of the following subjects: Art, Drama, Foreign Languages, Music and Philosophy 14

Area V: Complete A or B (58-61 units)

A. For students seeking the provisional credential as undergraduates

1. 16-20 units of approved courses in a single department or area of study in which options within the major are offered 16-20

2. 40 units of Teacher Education and Mathematics courses in the approved credential program (see listing in this catalog under Department of Teacher Education) 40

3. 0-5 units of free electives 0-5

B. For students planning to seek the credential after graduation

1. 28-33 units of approved courses in a single department or area of study in which options within the major are offered 28-33

2. 25-33 units of free electives 25-33

* English 3020, which meets the requirement of the basic Teaching Credential Programs for an upper division course in composition, may be applied to this requirement.

** At least one course in history is required of credential candidates. It may be taken in this area or as the single history course permitted in Areas I and IV.

Bilingual/Cross Cultural Option

Area III:

Three courses from each of two of the following groups:

Group A:

- Anth. 3350. Urban Anthropology (4)
- Anth. 3510. South America (4)
- Anth. 3515. Mexico and Central America (4)
- Anth. 3518. Mexican-American Peoples (4)
- Anth. 3730. Bilingualism in the United States (4)

Group B:

- Geog. 3330. Urban Geography: The Modern City (4)
- Geog. 3505. Geography of California (4)
- Geog. 3510. Geography of Mexico, Central America, and the Caribbean Islands (4)
- Geog. 3515. Geography of South America (4)

Group C:

- Hist. 3515. The Mexican American and the American Southwest (4)
- Hist. 3600. Latin America: Colonial Period (4)
- Hist. 3601. Latin America: Since 1825 (4)
- Hist. 3621. Mexico to 1821 (4)
- Hist. 3622. Mexico Since 1821 (4)

Group D:

- PoSc. 4130. Urban Politics (4)
- PoSc. 4280. Political Systems of Latin America (4)
- PoSc. 4580. Development and Revolution in the Americas (4)

Group E:

- Soc. 3416. Sociology of the Mexican-American Family (4)
- Soc. 3520. Sociology of Minority Groups (4)
- Soc. 4450. Urban Sociology (4)

Area IV:

Three courses from the following:

- FLan. 2401. Intermediate Spanish (4)
- FLan. 2402. Intermediate Spanish (4)
- FLan. 2403. Intermediate Spanish (4)
- FLan. 2408. Intermediate Spanish for Chicanos, I (4)
- FLan. 2409. Intermediate Spanish for Chicanos, II (4)
- FLan. 2410. Spanish Conversation (4)
- FLan. 3401. Advanced Spanish Composition and Syntax, I (4)
- FLan. 3402. Advanced Spanish Composition and Syntax, II (4)
- FLan. 3403. Advanced Spanish Composition and Syntax, III (4)
- FLan. 3404. Creative Writing in Spanish (4)
- FLan. 3411. Introduction to Spanish Linguistics (4)
- FLan. 3412. Spanish Phonetics (4)
- FLan. 3495. Spanish-American Culture and Civilization (4)

Credential Track (path for students seeking provisional credential at graduation)

Area V

Five courses selected from the following:

- MAS 2001. The Chicano in Contemporary Society—I (4)
- MAS 2002. The Chicano in Contemporary Society—II (4)
- MAS 2003. The Chicano in Contemporary Society—III (4)
- MAS 4000. Senior Seminar in Mexican-American Studies (4)
- MAS 4130. Barrio Projects (1-4)
- MAS 4315. Urban Chicano Life (4)
- MAS 4405. The Cultural Context of Mexican American Education (4)
- Phil. 2801. Intellectual Antecedents of Chicano Thought (4)
- Ted. 4400. The Chicano and the Schools (4)

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

Area V

Five courses selected from the following:

- MAS 2001. The Chicano in Contemporary Society—I (4)
- MAS 2002. The Chicano in Contemporary Society—II (4)
- MAS 2003. The Chicano in Contemporary Society—III (4)
- MAS 4000. Senior Seminar in Mexican-American Studies (4)
- MAS 4130. Barrio Projects (1-4)
- MAS 4315. Urban Chicano Life (4)
- MAS 4405. The Cultural Context of Mexican American Education (4)
- Phil. 2801. Intellectual Antecedents of Chicano Thought (4)
- Ted. 4400. The Chicano and the Schools (4)

Three courses from those listed in Areas III and/or IV.

MARINE SCIENCES

(Departments of Biological Sciences and Earth Sciences; School of Science)

MOSS LANDING MARINE LABORATORIES

The California State University and Colleges operate the Moss Landing Marine Laboratories at Moss Landing on Monterey Bay, California. This facility functions as a seaside extension of the campuses of six cooperating California State University and Colleges (Hayward, San Jose, San Francisco, Sacramento, Stanislaus, and Fresno), and offers course work in marine biology, geology, meteorology, oceanography, and other marine sciences.

Facilities: The laboratories have a 102-foot coastal research vessel, the *Oconostota*, several small vessels and a complete array of oceanographic equipment for laboratory and field work. There are more than 14,000 square feet of laboratory and classroom space. This includes a chemistry laboratory, a sedimentation room, an advanced equipment laboratory, a filtered-air clean laboratory for trace element analyses and several biology laboratories for study and research, including a vertebrate zoology room (for study of sea mammals including whales), a physiology and ecology laboratory and a general marine biology room with a reference collection of marine organisms. Specialized equipment available includes a scanning electron microscope, two atomic absorption spectrophotometers with graphite furnaces, a C-H-N analyzer, a freeze-dry machine, high-precision salinometers, two programmable desk-top computers and numerous other items. A well-equipped shop permits the designing of special instruments. The entire upper floor is occupied by a specialized library with some 150 periodicals devoted to the field of oceanography and marine sciences. A separate boat house stores nets and motors.

Undergraduate Program: The 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 and Records Office has information for concurrent registration.)

Interested students should make early application because enrollment is limited. Consult advisers in the Department of Biological Sciences or the Department of Earth Sciences for further details. An information brochure is available from the biology office or the Director's office at Moss Landing Marine Laboratories.*

Graduate Program: Graduate students from Cal State, Hayward, may take such courses at Moss Landing as are appropriate to their objective, including that of an M.A. in Biological Science or an M.S. in Earth Sciences.** A major part of the work leading to the M.A. degree in Biological Science, particularly in the environmental biology option, or to the M.S. degree in Earth 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.

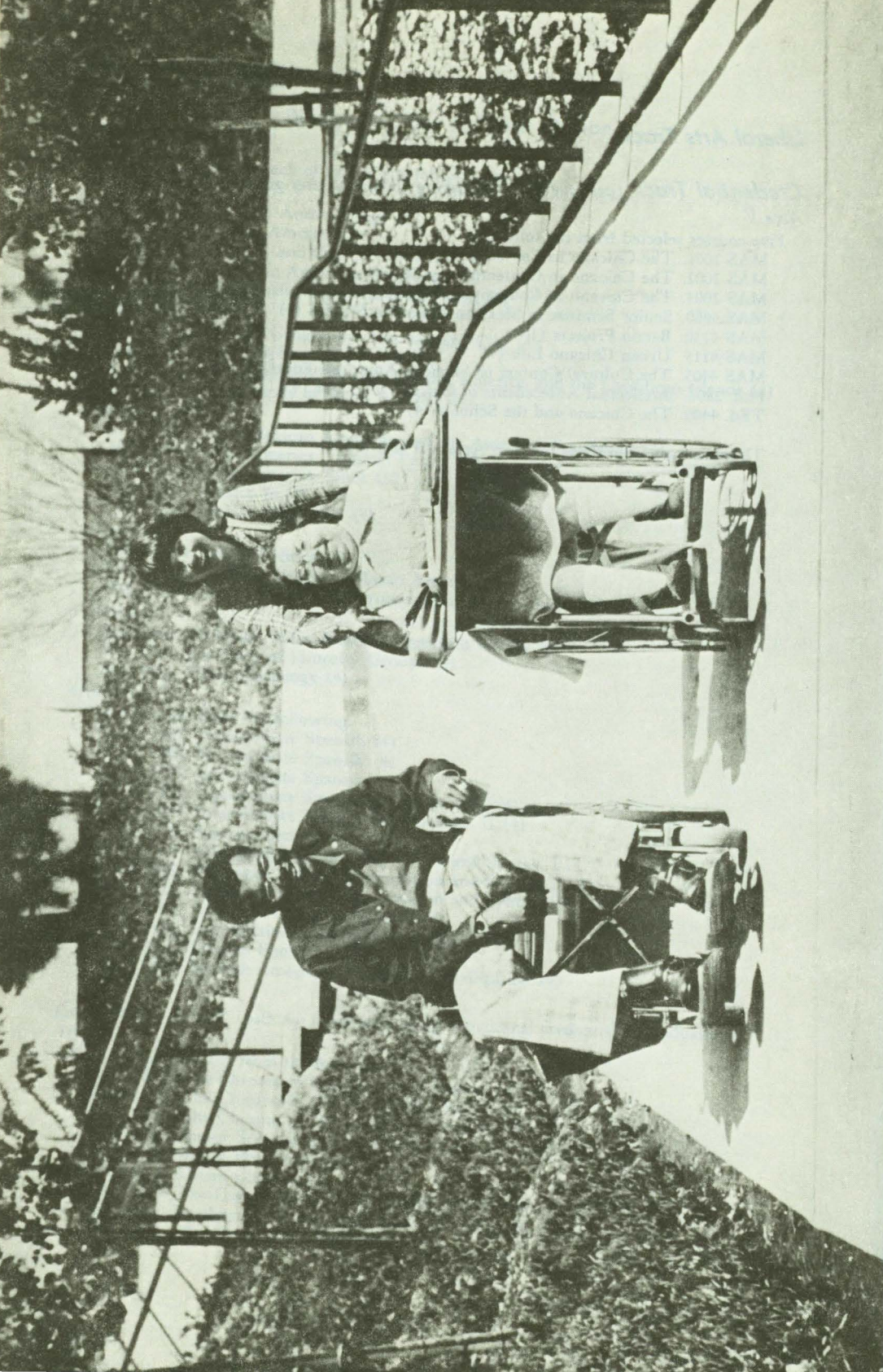
Courses Offered: Full-time course work and research in marine sciences are offered the year around. Emphasis in instruction and research is at the upper-division undergraduate and graduate levels. The Laboratories operate on a *semester* system during the fall and spring, and on the *quarter* system during the summer.

A total of thirty to forty units are offered each term in marine biological and physical sciences. Write to Moss Landing Marine Laboratories for the current list of courses for the term you wish to attend. Basic courses offered every term include general oceanography, marine ecology, quantitative marine science, marine science techniques, marine science diving, graduate seminar, and selected topics in marine sciences. See the undergraduate course offerings listed in this catalog under Marine Sciences, page 344, and the graduate course offerings listed on page 163.

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. Course work 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

* Moss Landing Marine Laboratories, P.O. Box 223, Moss Landing, CA 95039.

** See Graduate Coordinators in Departments of Biological or Earth Sciences.



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 wide diversification 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: To register in Marine Science courses offered at Moss Landing Marine Laboratories, students must follow the appropriate procedure:

1. **Registration for Courses at Moss Landing Only:** Student must contact the secretary at Moss Landing Marine Laboratories for space reservation or the Assistant Director of Admissions and Records at California State University, Hayward, for details.
2. **Registration for Courses at Both Moss Landing and the Hayward Campus:** Student must register on the Hayward campus during regular registration time. This registration is to be only for the courses in which he or she will be enrolled on campus at Hayward. Registration for Moss Landing courses will be on the *semester* basis at Moss Landing Marine Laboratories.
3. Registration at Moss Landing takes place on the first day of classes. In the fall, this is two to three weeks before registration and the start of classes on the Hayward campus. For the spring semester, this is near the end of January, part way through the winter quarter at Hayward. For both semesters, Hayward personnel will be at Moss Landing on the first day of classes to handle registration procedures.

UNDERGRADUATE COURSES *

Offered through the Department of Biological Sciences

4102. Marine Science Techniques (4)

Introductory field and laboratory practice in techniques for collection, analysis and interpretation of data on the marine environment. Prerequisites: Chem 1101,-2,-3, Math. 1130, MSc. 4101 (or concurrent registration) or ESC. 3400. Two hrs. lect., 6 hrs. lab. (A)

4103. Marine Ecology (4)

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. (A)

4104. Quantitative Science (3)

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. Two hrs. lect., 3 hrs. lab. (A)

4105. Marine Science Diving (3)

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 and one-half hrs. lect., 4½ hrs. lab. (A)

4106. Subtidal Ecology (4)

Studies of communities in the sublittoral zone, stressing application of ecological research techniques by the diver. Field exercises in sampling, community analysis and ecological surveys. Prerequisites: MLML Diver Certification, MSc. 4103 and MSc. 4121 or 4131. Two hours lect., 6 hrs. lab./field. (A)

4111. Zoology of Marine Vertebrates (4)

A field-oriented study of natural history, ethology, physiology, identification, and systematics of vertebrates living in or associated with marine, estuarine, and shore communities; emphasis upon interrelationships of organisms with these environments. Prerequisites: Biol. 1101, -2, -3 or equivalent, MSc. 4103. Two hrs. lect., 6 hrs. lab. (F, Sp, on demand)

4112. Marine Birds and Mammals (4)

Systematics, morphology, ecology, and biology of birds and mammals. Prerequisites: MSc. 4111 or Biol. 3580, or consent of instructor; MSc. 4103 recommended. Two hrs. lect., 6 hrs. lab./field. (Sp, on demand)

4113. Marine Ichthyology (4)

The taxonomy, morphology and ecology of marine fishes. Not open to students who have taken Biol. 4570. Prerequisites: Biol. 1102, MSc. 4111 or Biol. 3580. Two hrs. lect., 6 hrs. lab./field. (Sp, on demand)

4122. Marine Invertebrate Embryology (4)

Principles of developmental biology, emphasizing experimental studies of invertebrates. Laboratory observations will cover embryology of lower invertebrates, mollusks, crustacea, echinoderms, and protochordates. Prerequisites: MSc. 4121 or Biol. 3521 and 3522, or consent of instructor. Two hrs. lect., 6 hrs. lab. (On demand)

4123. Marine Invertebrate Physiology (4)

Comparative physiology of invertebrates; laboratory problems on nutrition, respiration, osmotic regulation, coordination and other physiological functions. Discussion of general principles of physiology, using examples from invertebrate phyla. Not open to student having Biol. 4501 or 4502. Prerequisites: MSc. 4121 and Biol. 3150 or consent of instructor. Two hrs. lect., 6 hrs. lab. (On demand)

4124. Marine Invertebrate Zoology I (4)

A field oriented introduction to the structure, systematics, evolution and life histories of the major marine invertebrate phyla. Prerequisites: Biol 1102; MSc 4103 recommended. Not open to students who have taken Biol 3521-22 or MSc 4121. Two hrs. lect., 6 hrs. lab./field.

4125. Marine Invertebrate Zoology II (3)

A field oriented introduction to the structure, systematics, evolution and life histories of the minor marine invertebrate phyla. Prerequisites: Biol 1102; MSc 4103 and 4124 recommended. Not open to students who have taken Biol 3521-22 or MSc 4121. One hr. lect., 6 hrs. lab./field.

4131. Marine Phycology (4)

The biology of marine algae with emphasis on identification, life histories, ecology, and systematics. Prerequisites: Biol. 1103; MSc. 4103 recommended. Two hrs. lect., 6 hrs. lab./field. (F, Sp, on demand)

4132. Introduction to Marine Plankton (4)

Identification, distribution and ecology of phytoplankton and zooplankton. Introduction to sampling and analytical procedures. Prerequisites: ESC. or MSc. 3400; MSc. 4103 recommended. Two hrs. lect., 6 hrs. lab./field. (F, on demand)

4161. Marine Fisheries (4)

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, 4111 or consent of instructor. MSc 4103 recommended. Two hrs. lect., 6 hrs. lab.

* Courses listed under Marine Sciences are offered on a semester basis in the fall and spring. Each unit is credited as 1¼ quarter units. In the summer courses are operated on a quarter basis, and units are credited as shown.

4171. Oceanographic Summer Cruise (4)

Oceanographic shipboard research. Cruise planning, logistics, implementation. Analysis of samples and data interpretation. Written report. Prerequisites: MSc. 4101, 4102. One hr. lect., 9 hrs. lab. (Y)

4172. Marine Environment Group Research (3)

Student involvement in scientific investigations. Employment of scientific methodology and principles; literature surveys, and experience in writing and presenting research findings on specific projects. Prerequisites: ESc. 3400, MSc. 4102, MSc. 4103, Stat. 3031. One hr. lect., 6 hr. lab./field. (On demand)

4175. Topics in Marine Science (3-4)

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. One to 3 hrs. lect., 3 or 6 hrs. lab./field. (On demand)

4177. Microscope Techniques (3)

Principles and techniques of light and electron microscopy. Brightfield, darkfield, phase contrast and interference contrast light microscopy; episcopic and diascopic 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.

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)****5201. Concepts of Marine Science (3)**

(See *Biological Sciences* section for course description.)

Offered through the Department of Earth Sciences

4101. General Oceanography (4)

An interdisciplinary examination of physical and chemical characteristics of seawater, distribution and effects of ocean currents, geology of the ocean floor, and relations of organisms to the marine environment. Not open to students who have completed E.Sc. 3400. Prerequisites: college chemistry and biology. Three hrs. lect., 3 hrs. lab. and field. (F., Sp. Sem.; Su. Qtr.) (See also E.Sc. 3400 given at Hayward.)

4102. Marine Science Techniques (4)

Introductory field and laboratory practice in the techniques for collection, analysis and interpretation of data on the marine environment. Prerequisites: Chem. 1103 and Math. 1130, and MSc. 4101 (or concurrent registration) or Earth Sci. 3400. Two hrs. lect., 6 hrs. lab. (A)

4141. Geological Oceanography (3)

(See also E.Sc. 4141 given at Hayward.)

A study of the structures, physiography and sediments of the sea bottom and shoreline. Not open to students who have completed E.Sc. 4141. Prerequisite: general oceanography (concurrent registration satisfactory). Two hrs. lect., 3 hrs. lab., and field. (Sp. Sem.)

4142. Marine Biogenic Sedimentation (3)

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. Prerequisite: MSc. 4101 and college geology and biology. Two hrs. lect., 3 hrs. lab. and field. (A)

4143. Coastal Geomorphology (3)

A geologic history and formation of the shoreline. Prerequisites: physical geol. or phys. geography. Two hrs. lect., 3 hrs. lab. (A)

4151. Marine Meteorology (3)

Introductory discussion of the interaction between ocean and atmosphere including exchange of heat, momentum and particles and their influence on waves and currents and on weather and climate. Prerequisite: M.Sc. 4101. Two hrs. lect., 3 hrs. lab. (A)

4171. Oceanographic Cruise (4)

Oceanographic shipboard research. Cruise planning, logistics, implementation. Analysis of samples and data interpretation. Written report. Prerequisites: M.Sc. 4101, 4102. One hr. lect., 9 hrs. lab. (Y)

4410. Physical and Chemical Oceanography (4)

Quantitative description of physical and chemical properties in the oceans. Relationship between these properties and physical, chemical, and biological processes in the oceans. Prerequisites: Math. 1303, Chem. 1103, E.Sc. 3400 or equivalents or consent of instructor. Three hrs. lect., 3 hrs. lab. and field. (Y)

4510. Micropaleontology (3)

A study of fossil micro-organisms with emphasis on stratigraphic and environmental significance of Foraminifera. Prerequisites: introductory course work in geology or zoology. Two hrs. lect., 3 hrs. lab. (Sp. Sem.)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)****GRADUATE COURSES**

(See page 163)

MASS COMMUNICATION

(Department of Mass Communication; School of Arts, Letters and Social Sciences)

Professors: John Cambus (Chair), John Gothberg, Reuben Mehling, David L. Sanders

Lecturers: Bruce B. Brugmann, C. Mack Lundstrom, David C. Martin, Joseph W. Snorgrass

PURPOSES

CSUH offers a major in Mass Communication which leads to the Bachelor of Arts degree. The objectives of the curriculum are to provide the student with an understanding of the theories, processes, and effects of mass communication in contemporary society. This study prepares the student for a career in the mass media, for understanding the media as consumer or news source, or for graduate study of mass communication and evaluation of media performance, leading to teaching and research.

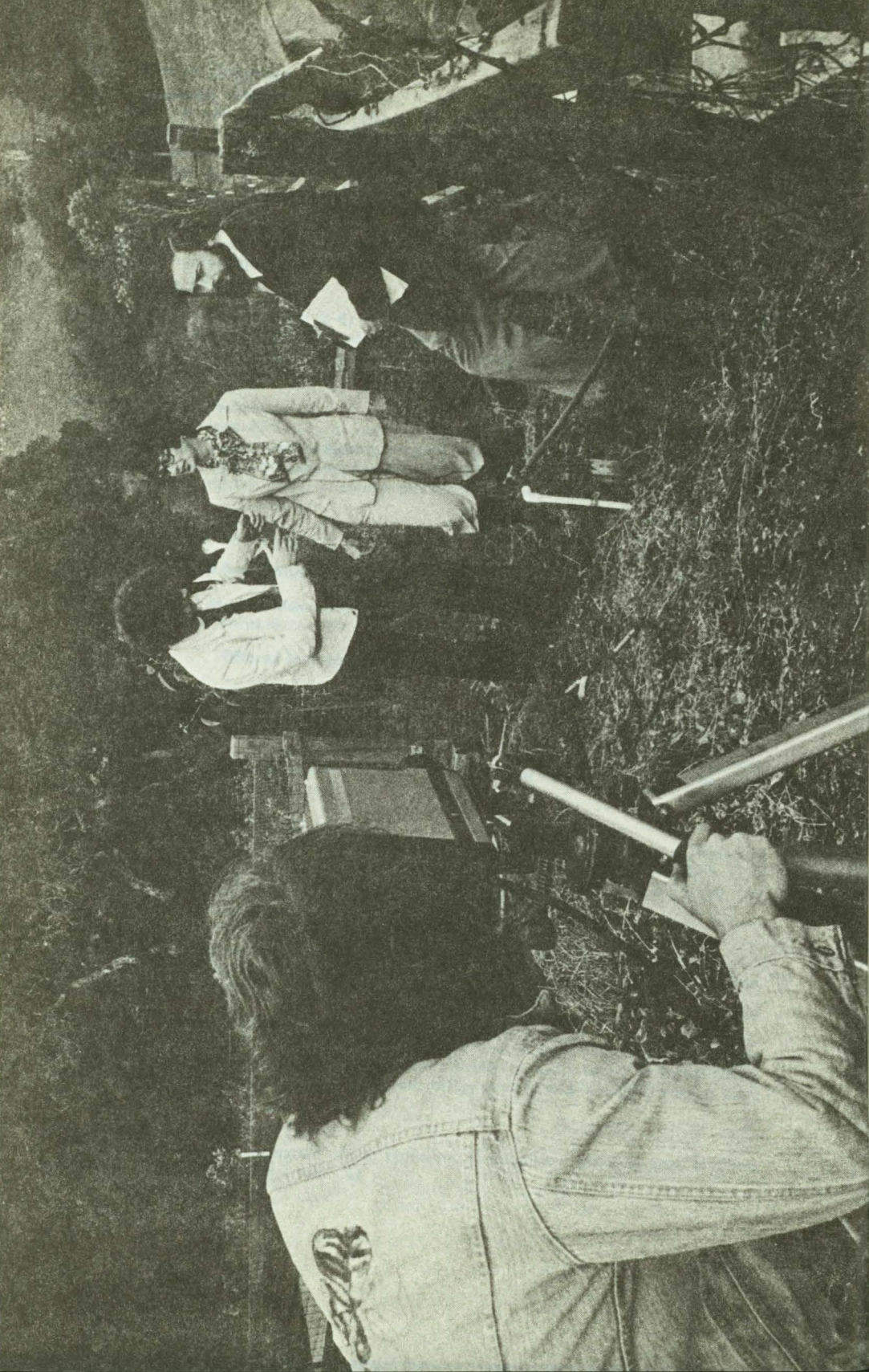
Courses are offered in the fundamentals, current practices, and theoretical applications of print and broadcast media, and new technological developments in communication. The program provides an opportunity for the student to emphasize either the development of communication skills, or the study of the roles and responsibility of the communications media and their effectiveness in conveying information to the public.

The Mass Communication Major Leading to a B.A. Degree

Requirements

- I. Complete the 76-unit requirement in general education.
- II. Courses in Mass Communication (52 units)
 1. Lower Division 8 units
 - MCom. 2000. Introduction to Mass Communication (4)
 - MCom. 2200. Introduction to Journalistic Writing (4)
 2. Upper Division Core 36 units
 - All of the following (20 units):
 - a. MCom. 3001. Media Communication I (4)
 - MCom. 3002. Media Communication II (4)
 - MCom. 3110. Law of Mass Communication (4)
 - MCom. 3700. Development of the Mass Media in America (4)
 - MCom. 4540. Senior Seminar in Mass Communication (4)
 - b. Two courses from the following group (8 units):
 - MCom. 3120. Language of Cinema (4)
 - MCom. 3240. Public Opinion (4)
 - MCom. 3520. Advertising and the Public Interest (4)
 - MCom. 4050. Theories of Mass Communication (4)
 - MCom. 4110. International Communication (4)
 - MCom. 4230. Research Methods in Mass Communication (4)
 - c. Two courses from the following group (8 units):
 - MCom. 3130. Broadcast News I (4)
 - MCom. 3140. Broadcast News II (4)
 - MCom. 3310. Publication Editing (4)
 - MCom. 3340. Graphic Communication (4)
 - MCom. 3410. Feature Writing (4)
 - MCom. 4450. Investigative Reporting (4)
 3. Electives 8
 - Additional elective units within the department may be chosen with the approval of an adviser.
 - MCom. 2500. The Black Press in America (4)
 - MCom. 2700. Introduction to Photography (4)
 - MCom. 3100. Broadcast Production/Direction (4)
 - * MCom. 3220. Media Workshop—Print (2)
 - * MCom. 3230. Media Workshop—Radio/TV (2)

* Maximum number workshop units toward graduations: ten (10). Maximum number in either 3220 or 3230; six (6).



- MCom. 3350. Magazine Publishing in America (4)
- MCom. 4650. Media Internship (2-4)
- MCom. 5200. Mass Media and Education (4)

- III. Courses in supporting fields..... 28-59 units
- a. Stat. 1000 or Math. 1700 (4-5)
 - b. Demonstrate a reading knowledge of a foreign language *either* (1) by completing the third quarter of Intermediate (second-year) Foreign Language or the third quarter of Foreign Language Reading with a grade of "C" or better or a grade of "credit" *or* (2) by passing a foreign language examination administered by the Department of Mass Communication. (0-24)
 - c. Fields of Concentration (24-30):
The student must select, with *departmental approval*, a related sequence of three courses in each of *two* of the following fields:
 - a. Public Affairs
 - b. Behavioral Sciences
 - c. Natural Sciences
 - d. Language and Symbolic Systems (24-30)

Unit Summary

Major: courses in Mass Communication	52
courses in supporting fields	28-59

The Mass Communication Minor

Required:	Units
MCom. 2000. Introduction to Mass Communication	4
MCom. 2200. Introduction to Journalistic Writing	4
MCom. 3001, 3002. Media Communication I, II	8
MCom. 3110. Law of Mass Communication.....	4
MCom. 3700. Development of Mass Media in America	4
Total required units	24

Select two courses from the following:

MCom. 3240. Public Opinion (4)	
MCom. 3520. Advertising and the Public Interest (4)	
MCom. 3310. Publication Editing (4)	
MCom. 3340. Graphic Communication (4)	
MCom. 4110. International Communication (4)	
MCom. 5200. Mass Media and Education (4)	8
Department electives	2
Total.....	34

Mass Communication Option: Liberal Studies

Area V. Liberal Arts Track
Credential Track (path for students seeking credential after graduation)

Required:	Units
MCom. 2000. Introduction to Mass Communication	4
*MCom. 3001-3002. Media Communication I, II	8
MCom. 3110. Law of Mass Communication.....	4
MCom. 3700. Development of Mass Media in America	4
Total.....	20

*Due to the required courses in the Liberal Studies program, MCom. 2200, the prerequisite, is waived.

Select two courses from the following:

MCom. 3240. Public Opinion	
MCom. 3310. Publication Editing	
MCom. 3340. Graphic Communication	
MCom. 3520. Advertising and the Public Interest	8
MCom. 4110. International Communication	
MCom. 5200. Mass Media and Education	

Total..... 28

Area V. Credential Track

(path for students seeking provisional credential as undergraduates)

Required

	Units
MCom. 2000. Introduction to Mass Communication	4
*MCom. 3001-3002. Media Communication I, II	8
MCom. 3110. Law of Mass Communication.....	4
MCom. 3700. Development of Mass Media in America	4
Total.....	20

Single Subject Waiver Program: English/Journalism

The following program of courses has been submitted by the Department of Mass Communication to the State Commission for Teacher Preparation and Licensing as a waiver program for the Single Subject English/Journalism. Approval has been received.

English 3005, 3010, 3040, 4251, 4710, 4720.....	24 units
One of the following: Engl. 3671, 3770, or 4740	4 units
One of the following: Engl. 3750, 4411, 4412, or 4832	4 units
One of the following: Engl. 4634, 4635, 4636, or 4860	4 units
MCom. 2200, 3001, 3110, 3220, 3310, 3700, 5200.....	26 units
	62 units

UNDERGRADUATE COURSES

1920-1999. Directed Group Study (1-4)

2000. Introduction to Mass Communication (4)

Survey of the social and economic structure of the communications media; roles of audience, media, and government in shaping communication policies. (A)

2200. Introduction to Journalistic Writing (4)

Fundamental theory and practice of writing forms used in the mass media. Prerequisite: Engl. 1001 or equivalent, and typing skill. (A)

2500. The Black Press in America (4)

Survey of the development and impact of the black press in America society; purpose, role, audience and support. Instruction includes visits by prominent black media representatives and field trips to offices of black publishers in the Bay Area. (F,W, Sp)

2700. Introduction to Photography (4)

Fundamental theory and practice of photography as medium of communication. Basic course for students planning application in art, science, photojournalism. Prerequisite: Consent of instructor. Two hrs. lect., 6 hrs. lab. (F, W, Sp)

3001. Media Communication I (4)

Critical study of the content, format and modes of presentation of mediated communication. Analysis and practice in writing in these various styles for print and electronic media. Prerequisite: MCom. 2200, Sophomore standing and typing skill. (F, W, Sp)

* Due to the required courses in the Liberal Studies program, MCom. 2200, the prerequisite, is waived.

3002. Media Communication II (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. Prerequisite: MCom 3001. (F, W, Sp)

3100. Broadcast Production/Direction (4)

Principles of producing and directing non-dramatic program material. Theory, application and practice to include equipment, studio operations and program formats used by the broadcast media. Two hrs. lect., 4 hrs. act. (F)

3110. Law of Mass Communication (4)

Case studies of current laws and regulations relating to defamation; contempt; invasion of privacy; obscenity; copyright and postal regulations; media competition; and consumer protection. (F, W, Sp)

3120. Language of Cinema (4)

Theories of visual imagery, non-verbal communication, and editing, related to evolution of cinema as a mass medium. Evaluation of news and documentary film and television. Prerequisite: MCom. 3001, or consent of instructor. (Y)

3130. Broadcast News I (4)

Principles of writing, interviewing, audio/video taping and editing for broadcast news media. Basic studio procedures and production of news and public affairs programming. Prerequisite: MCom. 3001. (W)

3140. Broadcast News II (4)

Advanced production of news and public affairs programming, studio directing and control room procedures. Theory and production of documentaries. Prerequisite: MCom. 3130. (Sp)

3220. Media Workshop—Print (2)

A supervised laboratory experience in the preparation of materials for print media, particularly university student publications. Prerequisite: MCom. 3001–3002. May be repeated. Maximum number of workshop units towards graduation: ten (10). Maximum number in either 3220 or 3230: six (6). (A)

3230. Media Workshop—Radio/TV (2)

A supervised laboratory experience in the preparation of materials for broadcast media, particularly university productions. Prerequisite: MCom. 3130. May be repeated. Maximum number of workshop units towards graduation: ten (10). Maximum number in either 3220 or 3230: six (6). (F, W, Sp)

3240. Public Opinion (4)

The relationship of public opinion and the mass media. Attitude change in public affairs, education, and propaganda. Practice in conducting and interpreting opinion surveys. Prerequisites: An introductory course in sociology or psychology, or consent of instructor. (Y)

3310. Publication Editing (4)

Study of traditional and innovative approaches in editing content of newspapers, magazines, industrial publications and alternative media; role of reader interests in determining editing policy. Prerequisites: MCom. 3001–3002. Three hrs. lect., 2 hrs. act. (Sp)

3340. Graphic Communication (4)

Study of various modes of non-verbal communication through media, with emphasis on the still photograph. Uses of typography, layout, symbols in creating visual style; trademarks, logotypes, and graphic themes. Prerequisites: MCom. 2700, 3001–3002. Three hrs. lect., 2 hrs. act. (F)

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. Prerequisite: MCom. 3002. Three hrs. lect., 2 hrs. act. (W)

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. Prerequisites: MCom. 3001–3002. (F)

3520. Advertising and the Public Interest (4)

Theory of advertising investigating the psychological, sociological, economic and legal aspects of the profession. Practice includes basic principles to complete research, development and production of an advertising campaign. (Y)

3700. Development of Mass Media in America (4)

The historical development of the mass media, examining social and technological influences on current practices. Study of trends in policies of government and media ownership. (F, W, Sp)

4050. Theories of Mass Communication (4)

A survey of theories of human communication behavior related to the mass media. Characteristics of mass audience and media channels; strategies of influence. Prerequisite: Psych. 2000 or Soc. 2000; or consent of instructor. (Y)

4110. International Communication (4)

Comparative study of media systems of other nations and cultures. Effects of international networks, satellite communications, and other technological developments on communication policies. Prerequisite: Ability to read a foreign language. (Y)

4230. Research Methods in Mass Communication (4)

Experimental and survey methods of collecting data on the process and effects of mass communication. Each student will design and carry out an individual project. Prerequisite: MCom. 3240; or consent of instructor. Three hrs. lect., 2 hrs. act. (Y)

4450. Investigative Reporting (4)

A course conducted under field conditions to prepare the advanced student for gathering information on complex political, social, economic and ecological topics. Prerequisites: MCom. 3001–3002. (W)

4540. Senior Seminar in Mass Communication (4)

Discussion and analysis of current issues involving the mass media. Students will develop a background report for presentation to the seminar. Prerequisite: Senior standing. (Sp)

4650. Media Internship (2,4)

On-the-job experience with newspapers, industrial publications and broadcast media in the Bay Area. Ten–twenty hrs. weekly. Prerequisite: Senior standing, consent of instructor. May be repeated to a maximum of 4 units. (A)

4900. Independent Study (1–4)**4920–4999. Directed Group Study (1–4)**

POST-BACCALAUREATE COURSE

5200. Mass Media and Education (4)

The role of mass communication in the public schools curricula; methods and procedures for teaching mass media and journalism classes in the secondary schools. (Sp)

MATHEMATICS

(Department of Mathematics, School of Science)

Professors: Frances C. Amemiya, Allen K. Charnow, Peter A. Fowler, John D. Hancock, Peter H. Jessner, Victor M. Manjarrez, George Pedrick, Colbert T. Purvis, Kenneth R. Rebman, George J. Resnikoff, Ranjit S. Sabharwal, Max Shiffman, Arthur B. Simon (Chair), Marianne F. Smith, Thomas H. Southard, John W. Summers, Theodore N. Tracewell, Bruce E. Trumbo, John E. Weidlich, Wlodzimierz S. Wrona

Associate Professors: Jeanne C. Barry, Richard E. Goodrick, Edward L. Keller, Gary E. Lippman, Russell L. Merris, Christopher L. Morgan, Louise E. Moser, Kenneth B. Salomon, Edwardine M. Schmid-Charnow, Howard B. Stauffer, Hwa Tang, Marvin R. Winzenread

Assistant Professors: James S. Daley, Charles M. Marut, Jack S. Zilver

Lecturer: Daniel R. Jurca

Graduate Adviser: Russell L. Merris

GENERAL INFORMATION

The Department of Mathematics offers courses of study leading to both a B.S. degree and an M.S. degree. Students may choose one of four options: secondary teaching, mathematics of the physical sciences, mathematics of the social and management science, and computer science. The department also offers a wide variety of courses in pure mathematics for those students contemplating graduate study.

ADVANCED PLACEMENT, MATHEMATICS

A mathematics student who has successfully completed an advanced-placement course in calculus in high school and has earned a score of "3," "4," or "5" on the Advanced Placement Examination † will be granted unit credit for Math. 1300 (4 units) and Math. 1304 (4 units). (No letter grade will be assigned or computed in the student's grade point average.)

The B.S. Degree with a Mathematics Major

A student planning to major in mathematics should consult an adviser as soon as possible to arrange a desirable and satisfactory program. Advisers are assigned in the Mathematics Office, North Science 335.

Although it is not a requirement, mathematics majors are urged to take as many courses as possible in one area such as Biology, Chemistry, Economics, Management Sciences, Physics, or Statistics. These are all disciplines 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.

Requirements

Every student must complete the University requirements in General Education, which are described in the front of this catalog. The minimum requirement for the mathematics major is sixteen 4-unit courses, for a total of 64 units of mathematics. These courses fall into four categories:

1. *Lower Division Mathematics (20 units)* This requirement consists of the following five courses:
 - Elementary Functions (Math. 1300)
 - The Calculus sequence (Math. 1304, 1305, 2304
or Math. 1404, 1405, 2404)
 - Elements of Linear Algebra (Math. 2101)

A student having four years of college preparatory mathematics in high-school should normally be prepared to begin with the calculus sequence, and would not be required

†This is prepared and offered by the College Entrance Examination Board.



to take Math. 1300. A student with only two years of high-school mathematics may find it necessary to take College Algebra (Math. 1130) in preparation for Math. 1300. A transfer student who has completed an entire calculus sequence and one sophomore level course in linear algebra (which might have been included in the calculus sequence) will have met these lower division requirements.

II. *Upper Division Breadth Requirement (24 units)* This requirement is designed to acquaint the student with the broad scope of contemporary mathematics. The six courses constituting this requirement are:

- Elements of Modern Algebra (Math. 3121)
- Linear Algebra (Math. 3100)
- Intermediate Analysis (Math. 3300)
- Differential Equations (Math. 3331)
- Algorithmic Processes (Math. 3701)
- Geometry (Math. 3215) or Differential Geometry (Math. 4200) or Topology (Math. 4360)

It is recommended that a student complete all six of these required courses before choosing the electives outlined in parts III and IV. This will ensure that a student is aware of the many diverse branches of mathematics before deciding to specialize.

III. *Upper Division Depth Requirement (8 units)* It is important that a student study some area of mathematics in greater detail than is permitted by a one-quarter course. There are several two-quarter sequences that build upon various of the breadth requirement courses, and every mathematics major is required to take at least *one* of these sequences, for a total of 8 units. The sequence must be chosen from the following:

- Algebra (Math. 4121-4122)
- Advanced Calculus (Math. 4331-4332)
- Computer Science (Math. 3702-4700)
- Optimization (Math. 3841 and either Math. 3860 or 3870)
- Differential Equations (Math. 3361-3362)
- Geometry (Math. 4215-4216)

IV. *Electives (12 units)* The minimum number of upper division units in mathematics required for the major is 44. There are 24 units in the breadth requirement and 8 units in the depth requirement; this allows 12 units, or three courses, as electives. These should be carefully chosen in consultation with an adviser to best prepare the student for future educational or employment opportunities. Although the minimum number of elective units is 12, additional mathematics electives should improve the students' competitive position in seeking employment or admission to graduate school.

Options

To meet the diversity of interests among mathematics majors, the department has designed four special options. Each option simply specifies which sequence a student should take to satisfy the depth requirement, and then describes the electives to be used to meet the total of 44 upper division units. Thus an option *does not* represent additional requirements; it merely specifies how a student who elects an option should fulfill the requirements. A student meeting all requirements of a particular option will have that fact noted on the transcript. *It is not necessary for a student to select an option.* The available options are:

Computer Science Preparation for graduate work in Computer Science or professional employment in business or industry.

- Sequence: Computer Science (Math. 3702-4700)
- Electives: Numerical Analysis (Math. 3750)
- Data Structures (Math. 4701)
- One related upper division elective

Mathematics of the Physical Sciences Preparation for graduate work in applied mathematics or professional employment.

- Sequence: Differential Equations (Math. 3361-3362)
- Electives: Advanced Calculus I (Math. 4331)
- Numerical Analysis (Math. 3750) or Vector Analysis (Math. 4320) or Complex Analysis (Math. 4340)
- One related upper division elective

Mathematics of the Social and Management Sciences Preparation for graduate work in operations research or a professional career in social or management sciences.

- Sequence: Optimization (Math. 3841 and either Math. 3860 or 3870)
- Electives: Probability Theory (Math. 3401)
- Computer Programming (Math. 3702) or Stochastic Processes (Math. 4410)
- One related upper division elective.

Secondary Teaching Preparation for the single subjects credential in mathematics.

- Sequence: Geometry (Math. 4215-4216)
- Electives: Probability Theory (Math. 3401) or Statistics (Math. 3502)

Any two courses from the following list:

- Set Theory (Math. 3130)
- Number Theory (Math. 3600)
- Numerical Analysis (Math. 3750)
- Linear Programming (Math. 3841)
- History of Mathematics (Math. 4040)
- Modern Algebra I (Math. 4121)
- Advanced Calculus I (Math. 4331)
- Topology (Math. 4360)

NOTE: A student contemplating graduate study in mathematics should satisfy the requirements for the degree by taking:

- Algebra sequence (Math. 4121-4122)
- Advanced Calculus sequence (Math. 4331-4332)

and one or more of the following:

- Complex Variables (Math. 4340)
- Real Variables (Math. 4350)
- Topology (Math. 4360)

Illustrative Program in Mathematics

NOTE: Only the mathematics courses are shown. This program is intended only as a suggestion. *Your actual schedule should be approved by your adviser.*

First Year

- Math. 1300. Elementary Functions (F) (May be waived by the equivalent of four years of college preparatory high school math.)
- Math. 1304, 1305. Calculus I, II (W, Sp)

Second Year

- Math. 2304. Calculus III (F)
- Math. 2101. Elementary Linear Algebra (F or W)
- Math. 3300. Introduction to Analysis (W)
- Math. 3121. Modern Algebra (Sp)

Third Year (Non-Transfer Students)

- Math. 3100. Linear Algebra (F)
- Math. 3701. Introduction to Algorithmic Processes (F) (Computer oriented)
- Math. 3331. Differential Equations (W)
- Math. 3215. Foundations of Geometry (Sp)*
- Two electives approved by your adviser (W, Sp)

* The Geometry breadth requirement may be met by taking Math. 4200 or 4360.

Third Year (For students who transfer to CSUH with credit for basic calculus)

- Math. 2101. Elementary Linear Algebra (F) (if not taken elsewhere)
- Math. 3300. Introduction to Analysis (F)
- Math. 3701. Introduction to Algorithmic Processes (F)
(Computer oriented)
- Math. 3121. Modern Algebra (W)
- Math. 3331. Differential Equations (W)
- Math. 3215. Foundations of Geometry (Sp)*
- Math. 3100. Linear Algebra (Sp)

Fourth Year

This year should be devoted primarily to subjects pertaining to your specific objectives. You should plan this selection carefully and well in advance with the help of your adviser.

Minors in Mathematics and in Computer Science

Students majoring in other fields may wish to complete a coherent pattern of work in mathematics for the purpose of expanding their employment and educational opportunities. The patterns shown below constitute the Minor in Mathematics and the Minor in Computer Science, and students successfully completing one of these programs will have the fact entered on their University records.

Minor in Mathematics

A total of 36 units, to include:

- Math 1304. Calculus I
- Math 1305. Calculus II
- Math 2101. Elements of Linear Algebra
- Math 2304. Calculus III

Three courses from the following list:

- Math 3100. Linear Algebra
- Math 3121. Elements of Modern Algebra
- Math 3215. Foundations of Geometry; or Math 4200 Elementary Metric Differential Geometry; or Math 4360 Introduction to Topology
- Math 3300. Intermediate Analysis
- Math 3331. Differential Equations I
- Math 3701. Introduction to Algorithmic Processes

Two upper division Math electives

Minor in Computer Science

A total of 32 units, to include:

- Math 1304, Calculus and Math 1305, Calculus II; or Math 1802, Math for Business and Social Sciences II and Math 1803, Math for Business and Social Sciences III (with consent of Mathematics Department Chair)
- Math 2101. Elements of Linear Algebra
- Math 3701. Introduction to Algorithmic Processes
- Math 3702. Computer Organization and Programming
- Math 4700. Compiler Design
- Math 4710. Data Structures

One upper Division Math elective

*The Geometry breadth requirement may be met by taking Math. 4200 or 4360.

Mathematics Option: Liberal Studies**Credential Track**

(path for students seeking provisional credential as undergraduates)

Area VA

- Math 1304 (4 units)
- Math 1305 (4 units)
- Math 2101 (4 units)
- Math 3121 (4 units)
- Math 3215 (4 units)

Liberal Arts Track**Credential Track**

(path for students seeking credential after graduation)

Area VA

- Math 1304 (4 units)
- Math 1305 (4 units)
- Math 2101 (4 units)
- Math 2304 (4 units)
- Upper Division Mathematics Electives (12 units)

Note: Students with insufficient high school mathematics background may have to complete Math. 1300 before entering Math. 1304.

Single Subject Waiver Program: Mathematics

The Major in Mathematics, Secondary Teaching Option, has been approved by the State Commission for Teacher Preparation and Licensing as a waiver program for the Single Subject Mathematics.

The Master of Science in Mathematics**GENERAL INFORMATION**

The Mathematics Department offers graduate study leading to the degree Master of Science, with two options available. Upon admission, a student will be assigned a faculty adviser who must approve the student's program each quarter. There are many University-wide regulations concerning admission, classification, advancement to candidacy, and granting of degrees; these are listed at the front of this catalog and a student has the responsibility of fulfilling all such requirements. In addition, the Mathematics Department has established the criteria outlined below.

OPTION I**Admission**

In order to be admitted to the Master's Degree program with classified status, a student must have completed at least 36 quarter units of acceptable upper division mathematics with an average of B or better. Included among these units must be courses in

- 1) advanced calculus
- 2) algebra
- 3) geometry or topology

A student may be admitted to the program with conditionally classified 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 status may be applied to the degree. A conditionally classified student who has no course deficiencies and a B or better average in at least 12 quarter units of post-baccalaureate study should petition the graduate coordinator for admission to the Master's Degree program with classified status.

Advancement to Candidacy

A student with classified status may apply for advancement to candidacy after completing at least 16 quarter units toward the Master's Degree with a B or better average, including at least two 6000-level mathematics courses with a B or better average.

Before being advanced to candidacy, a student's complete course of study must be approved by the Mathematics Department Graduate Studies Committee.

Requirements for the Degree

The following requirements are in addition to the University-wide requirements found in the front of this catalog.

- a) The following four courses (or their equivalents) must be completed, either as an undergraduate or as a graduate student:
 - Math. 4122. Modern Algebra II
 - Math. 4340. Introduction to Complex Variables
 - Math. 4350. Theory of Functions of a Real Variable
 - Math. 4360. Introduction to Topology
- 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 6120. Algebraic Structures
 - Math 6201. Point Set Topology
 - Math 6340. Complex Analysis
 - Math 6350. Real Analysis
- c) A comprehensive examination must be passed. Details are available in the Mathematics Department office.

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 status, a student must have completed 30 or more quarter units of acceptable upper-division mathematics. A student may be admitted to the program with conditionally classified 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 status may be applied to the degree. A conditionally classified student who has no course deficiencies and a B or better average in at least 12 quarter units of post-baccalaureate study should petition the graduate coordinator for admission to the Master's Degree program with classified status.

Advancement to Candidacy

A student with classified status may apply for advancement to candidacy after completing at least 16 quarter units of work toward the Master's Degree with a B or better average.

Before being advanced to candidacy, a student's complete course of study must be approved by the Mathematics Department Graduate Studies Committee.

Requirements for the Degree

The following requirements are in addition to the University-wide requirements found in the front of this catalog.

- 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, and linear programming be included in a prospective teacher's background.

- b) The 45 quarter units applied to the degree must include:
 - 1) At least 22½ 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 Mathematics Department office.

UPPER-DIVISION MATHEMATICS COURSES ACCEPTABLE FOR THE MASTER'S DEGREE

- 3115. Theory and Applications of Boolean Algebras (3)
- 3130. Set Theory (4)
- 3361. Ordinary Differential Equations (4)
- 3362. Partial Differential Equations (4)
- 3401. Introduction to Probability Theory (4)
- 3502, 3503. Statistical Inference I, II (4,4)
- 3600. Number Theory (4)
- 3702. Computer Organization and Programming (4)
- 3750. Basic Numerical Analysis (4)
- 3800. Selected Topics From Applied Mathematics (4)
- 3841. Linear Programming (4)
- 3860. Linear Optimization (4)
- 3870. Non-Linear Optimization (4)
- 4040. History of Mathematics (Option II only) (4)
- 4100. Mathematical Logic (4)
- 4121. Introduction to Modern Algebra I (4)
- 4122. Introduction to Modern Algebra II (4)
- 4200. Differential Geometry (4)
- 4215-4216. Modern Geometry I, II (4,4)
- 4320. Vector Analysis (4)
- 4331, 4332. Advanced Calculus (4,4)
- 4340. Introduction to Complex Variables (4)
- 4350. Theory of Functions of a Real Variable (4)
- 4360. Introduction to Topology (4)
- 4410. Introduction to Stochastic Processes (4)
- 4501, 4502. Introduction to Mathematical Statistics I, II (4,4)

4700. Advanced Computer Programming (4)

4710. Data Structures (4)

4740. Topics in Advanced Numerical Analysis (4)

UNDERGRADUATE COURSES

1100.* Intermediate Algebra (4)

Basic algebraic concepts and skills. (A)

1110. The Nature of Mathematics (4)**

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; no prerequisites. (A)

1130. College Algebra (4)

A college algebra course to prepare students for Math. 1300. Properties of real numbers, relations, functions, exponential and logarithmic functions, complex numbers. Prerequisite: Intermediate algebra or equivalent. (A)

1300. Elementary Functions and Coordinate Geometry (4)

Concept of function, basic analytic geometry, definitions, properties, and graphs of polynomials, rational functions, trigonometric functions, exponential and logarithmic functions. A preparatory course for calculus. Prerequisites: Two years high school algebra, one year high school geometry. (A)

1304. Calculus I (4)

Differential calculus. Techniques of differentiation of algebraic and trigonometric functions, implicit method. Graphing, maxima and minima, concavity. Mean value theorem. Related rates. Prerequisite: Math. 1300 or four years of college-preparatory high school mathematics. (A)

1305. Calculus II (4)

Integral calculus. Fundamental theorem, mean-value theorem, Taylor's formula, indeterminate forms. Exponential and logarithmic functions. Area and the indefinite integral, techniques of integration. Applications to volume, arc length, physical and biological problems. Prerequisite: Math. 1304. (A)

1404, 1405. Honors Calculus I, II (4 each)

The first and second quarters of a three quarter honors sequence in calculus covering roughly the same material as in the regular calculus sequence but with greater emphasis on the rigorous treatment of the fundamental concepts and applications. Recommended for those with a strong mathematical background and interest. Prerequisite: Consent of instructor. (1404: F, 1405: W)

1700. Elementary Computer Programming (4)

Introduction to the use of digital computers in problem solving. Flowcharting techniques. Computer programming in FORTRAN. Use of University computing facilities. Prerequisite: One year of high school algebra. (A)

1801. Mathematics for Business and Social Sciences I (4)

Sets, operations with algebraic expressions, factoring, exponents and roots, linear and quadratic functions and equations, coordinate geometry and graphing, systems of linear equations and inequalities, multivariate functions. Prerequisite: Math 1100 or satisfactory score on placement exam administered at first class meeting. (Not required of students able to satisfy entrance requirement to Math 1802.) (A)

* Students having received credit for the equivalent of any mathematics course numbered 1130 or higher will not receive credit for this course.

** Upper-division mathematics majors may not receive credit for this course.

1802. Mathematics for Business and Social Sciences II (4)

Polynomial, rational, logarithmic and exponential functions, multivariate functions, matrices and systems of linear equations, determinants, sequences and series, applications to business and social sciences. Prerequisite: Math 1801 or satisfactory score on placement exam. (Information about the placement exam may be obtained from the Department of Mathematics.) (A)

1803. Mathematics for Business and Social Sciences III (4)

Limits and continuity, differential calculus including derivatives of polynomial, exponential and logarithmic functions, partial derivatives, integral calculus, differential equations, applications of calculus to business and social sciences. Prerequisite: Math 1802. (A)

1920-1999. Directed Group Study (1-5)

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 1803 (may be taken simultaneously with, or after, Math. 2304). (A)

2304. Calculus III (4)

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)

2404. Honors Calculus III (4)

The third quarter of a three-quarter honors sequence in calculus covering roughly the same material as in the regular sequence but with greater emphasis on the rigorous treatment of the fundamental concepts and applications. Recommended for those with a strong mathematical background and interest. Prerequisite: Consent of Instructor. (Sp)

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. (A)

3115. Theory and Applications of Boolean Algebras (4)

Axiomatic treatment of Boolean algebra. The algebra of sets and the algebra of propositions treated as Boolean algebras. Applications to logic, switching circuits, control problems and related topics. Prerequisite: Math. 2304. (Y)

3121. Elements of Modern Algebra (4)

Equivalence relations, partitions and binary operations. Introduction to groups, rings, and fields. The integers, the integers modulo n , the rationals, polynomial rings and matrices. Prerequisites: one year of calculus and some linear algebra. (A)

3130. Set Theory (4)

Sets, relations, functions. Quotient sets and product sets. The choice axiom and its equivalent forms. Ordinal and cardinal arithmetic. Prerequisite: two years of college mathematics. (Y)

3150. Topics in Discrete Mathematics (4)

A survey course, with topics chosen from the contemporary theories of combinatorics with graph theory, including applications to other disciplines (e.g., computer science, social sciences). May be repeated once for credit with permission of department chair. Prerequisite: two years of college-level mathematics. (Y)

3215. Foundations of Geometry (4)

Incidence, order, separation, metric vs. synthetic approach, congruence, similarity, absolute geometry, Euclidean and non-Euclidean geometries, classical constructions. Prerequisite: Math. 1305. (F, Sp, Su)

3300. Intermediate Analysis (4)

A rigorous treatment of the real numbers, topology of the line, continuity, sequences and infinite series. Prerequisite: Calculus (Math. 2304). (A)

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. (formerly Math 3332)

3362. 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. (formerly Math 4361) (Y)

3401. Introduction to Probability Theory (4)

(See Stat. 3401 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)

3701. Introduction to Algorithmic Processes (4)

Programming of digital computers in problem-oriented language. Emphasis on algorithms, scientific applications. Thorough study of a compiler language. Use of CSUH computing facilities. Prerequisite: Math 1305, or 1803. (A)

3702. Computer Organization and Programming (4)

Programming a digital computer in machine-oriented language. Basic machine language, assembly language. Macros, indexing, subroutines, number and character representations. Use of University computing facilities. Prerequisite: Math. 3701, or both Math. 1700 and 1305. (F, W, Sp)

3750. Basic Numerical Analysis (4)

Computation with approximate numbers; accuracy, checking and error considerations; choice and use of tables; applications involving polynomial approximations; interpolation, finite differences, numerical differentiation and integration; numerical solution of algebraic, transcendental equations and systems of equations. Prerequisite: A course in differential equations which may be taken concurrently with consent of instructor. (Y)

3800. Selected Topics from Applied Mathematics (4)

Aspects of mathematical modeling, with examples illustrating the techniques of applying mathematics to the behavioral, biological, natural, or social sciences. May be repeated once for credit with permission of department chair. Prerequisite: introductory courses in linear algebra and differential equations; or consent of instructor.

3841. Linear Programming (4)

Applications and problem formulation; solution procedures (simplex method and variants); duality theory; sensitivity analysis. Prerequisite: Math 2304 and competence in matrix algebra. (F)

3860. Linear Optimization (4)

Assignment and transportation problems; mutual primal-dual algorithm, decomposition techniques; integer programming; stochastic programming. Prerequisite: Math. 3841. (Y)

3870. Non-Linear Optimization (4)

Unconstrained optimization; LaGrange multiplier theory and Kuhn-Tucker theory; solution procedures (gradient methods, penalty functions, cutting planes, etc.); geometric programming; dynamic programming. Prerequisite: Math. 3841. Recommended: Advanced calculus. (Y)

4021.* Number Systems (4)

Sets; relations and operations on sets; numeration systems; number systems from the natural through the real numbers; relations, operations, and algorithms for these sets of numbers. (A)

4022.* Geometry (4)

Informal non-metric geometry, metric geometry, measurement, logic and the nature of a mathematical system, simple proofs. Prerequisite: Math. 4021. (Y)

4023.* Functions (4)

Elementary functions on the real number system; graphs; introduction to probability and statistics; flow charting, introduction to the electronic digital computer. Prerequisites: Math. 4021 and 4022. (Y)

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. (Tent. Y)

4121, 4122. Modern Algebra I, II (4 each)

Groups, rings, and fields. Principal ideal rings, polynomial rings, modules. Structure theorems for finitely generated modules. Galois theory. Prerequisites: 4121: Math 3100 and 3121; 4122: Math 4121. (Y)

4200. Differential Geometry (4)

Topics in classical differential geometry of curves and surfaces. Prerequisite: Math. 2304 or equivalent. (Y)

4215, 4216. Modern Geometry I, II (4 each)

Synthetic and analytic plane projective geometry. Projective theory of conics and transformations, finite planes, and selected topics. Prerequisites: Math 4215: Math 3215 and 2101; Math 4216: Math 4215 and 3100.

4320. Vector Analysis (4)

Vector algebra, differentiation, and integration; gradient, divergence, curl; curvilinear coordinates. Prerequisite: Math. 3331. (Y)

4331, 4332. Advanced Calculus I, II (4 each)

Limits and convergence, improper integrals, functions of several variables, partial derivatives, Jacobians and the linear approximation theorem, multiple integrals and Fubini's theorem, line and surface integrals, Stokes' theorem, special functions. Prerequisite: 4331: Math. 2101 and 3300; 4332: Math. 4331. (Y)

4340. Introduction to Complex Variables (4)

Introduction to theory of functions of complex variables. Prerequisite: Math. 3300. (Y)

4350. Theory of Functions of a Real Variable (4)

Pointwise and uniform convergence, Taylor's series, Riemann integration, sets of measure zero, Lebesgue's theorem on the Riemann integral, the metric space of continuous functions, and selected topics. Prerequisites: Math 3100, 4331. (Y)

4360. Introduction to Topology (4)

Beginning course in topological methods in analysis, standard theorems in topology, bicontinuous transformations, topological spaces, metric spaces. Prerequisite: Math. 3300. (Y)

* Mathematics majors will not receive credit for this course.

4401. Introduction to Stochastic Processes (4)*(See Stat. 4401 for course descriptions.)***4501, 4502. Introduction to Mathematical Statistics I, II (4 each)***(See Stat. 4501, 4502 for course descriptions.)***4700. Compiler Design (4)**

Introduction to the theory and construction of high-level language translators. Formal language theory, parsing algorithms, interpretation, code generation and optimization. Use of University computing facilities. Prerequisite: Math 3702 (recommended: Math 4710). (W,Sp)

4710. Data Structures (4)

Description, representation, and non-numerical algorithms for manipulation of data represented in computer as arrays, lists, trees, sets, graphs, etc. Prerequisite: Math. 3701 or equivalent. (Y)

4740. Topics in Advanced Numerical Analysis (4)

Advanced undergraduate course in selected area of modern numerical analysis; computational aspects of linear algebraic systems of equations, ordinary or partial differential equations, orthogonal polynomials, splines and other approximation methods. Topics change each quarter. May be repeated once for credit. Prerequisites: Math. 3750 and consent of instructor. (On demand)

4900. Independent Study (1-5)**4920-4999. Directed Group Study (1-5)****MATHEMATICS—EDUCATION COURSES****4020. Teaching Mathematics in Elementary Schools (3)**

The curriculum, teaching methods and content in elementary school mathematics. Prerequisite: Math. 4021. (Y)

5900. Independent Study (1-3)**5920-5999. Directed Group Study (1-3)****GRADUATE COURSES****6120. Algebraic Structures (4)**

Advanced topics in groups, rings and fields. Structure theorems. Introduction to homological algebra. Prerequisite: Math. 4122. (Y)

6201. Point Set Topology (4)

Topological spaces, separation axioms, connectedness and compactness, continuous functions, metric spaces, product and quotient spaces. Prerequisite: Math. 4331, 4360. (Y)

6202. Algebraic Topology (4)

Simplicial and singular homology and cohomology. Homotopy theory. Prerequisites: Math. 4122, 4360. (Y)

6331. Differential Equations (4)

Fundamental existence theorems. Theory of linear systems. Topics selected from stability theory of nonlinear equations, Poincare-Bendixson Theorem, Sturm-Liouville theory, perturbation methods. Prerequisite: Math. 3100, 3331, and 4332. (Y)

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. (Y)

6350. Real Analysis (4)

Theory of Lebesgue measure and integration on the real line. Selected topics and applications. Prerequisite: Math. 4350. (Y)

6370. General Theory of Measure and Integration (4)

Set functions and measure spaces. Borel, Lebesgue and Radon measure. Measurable functions and integral. The Lebesgue dominated convergence theorem. The theorems of Fatou, Radon-Nikodym and Fubini. The Lebesgue spaces. Prerequisite: Math. 6350. (Y)

6401, 6402. Advanced Probability I, II (4,4)*(See Stat. 6401, 6402 for course description.)***6410. Queueing Theory (4)***(See Stat. 6410 for course description.)***6430. Stochastic Processes (4)***(See Stat. 6430 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.)***6811. Mathematical Methods of Physics (4)***(See Phys. 6811 for course description.)***6900. Independent Study (1-4)****6902-6909. Seminar (2-3)**

Student participation in an extensive study of a selected topic in advanced mathematics. May be repeated for credit. Prerequisite: consent of instructor. (A)

6902. Algebra Seminar

6903. Applied Mathematics Seminar

6904. Analysis Seminar

6905. Topology Seminar

6906. Number Theory Seminar

6910. Thesis (1-6)**6911-6919. Selected Topics in Graduate Mathematics (2-4)**

Lecture presentation of graduate mathematics extending beyond regular courses. Subject will vary from time to time. Content to be specified at time of offering. May be repeated for credit. Prerequisite: consent of instructor. (A)

6920-6999. Directed Group Study (1-4)**MATHEMATICS EDUCATION GRADUATE COURSES****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)***6022. Practicum in Diagnosis and Treatment of Learning Difficulties in Mathematics (3)***(See T.Ed. 6022 for course description)***6040. Advanced Curriculum and Instruction in Secondary Mathematics (4)***(See T.Ed. 6040 for course description)*

MEXICAN AMERICAN STUDIES

(Mexican American Studies Program; School of Arts, Letters and Social Sciences)

Professor: Anthony W. Ochoa (Director)

Lecturers: Jaime Flores, Ramón Quezada

INTRODUCTION

Mexican American Studies is an interdisciplinary, liberal arts program leading to a B.A. degree. Candidates for teaching credentials must confer with advisers in the School of Education.

Requirements

- I. Complete the 76-unit requirement in general education required for B.A. and B.S. degrees. Students who complete this major may apply up to 8 units of Foreign Language courses in satisfaction of the requirement in Basic Subjects; up to 8 units of Foreign Literature, History, and Philosophy courses in satisfaction of the requirement in Humanities and/or up to 8 units of such courses in satisfaction of the requirement in upper division general education; up to 12 units of Anthropology, Geography, Political Science, and Sociology courses in satisfaction of the area requirement in Social Sciences; 4 units of creative arts or physical education (see requirement B below) in satisfaction of the requirement in performing arts and activities. Courses outside of the social sciences may also satisfy elective requirements in general education.
- II. Courses in the major 50-76 units
 - A. Required courses: MAS 2001, 2002, 2003, 4000 and Hist. 3515; (20)
 - B. Six or seven units in creative arts and/or physical education with Chicano content;
 - C. Eight units in history courses selected from:
 - Hist. 3600. Latin America: Colonial Period
 - Hist. 3601. Latin America: Since 1825
 - Hist. 3500. History of California
 - Hist. 3621. Mexico to 1821
 - Hist. 3622. Mexico Since 1821
 - Hist. 4801-99. Special Problems in History *
 - Hist. 4920-99. Directed Group Study *
 - D. Eight units in Spanish language or literature with Chicano content (at least four units of which must be in literature):
 - FLan. 3401. Advanced Spanish Composition and Syntax I
 - FLan. 3402. Advanced Spanish Composition and Syntax II
 - FLan. 3403. Advanced Spanish Composition and Syntax III
 - FLan. 3461. Introduction to Spanish-American Literature:
 - Before the 19th Century
 - FLan. 3462. Introduction to Spanish-American Literature:
 - 19th Century Romanticism and Modernism
 - FLan. 3463. Introduction to Spanish-American Literature:
 - From 1910 to the Present
 - FLan. 4461. The Contemporary Literature of One Spanish-American Country *
 - FLan. 4468. Spanish-American Literature: The Short Story *
 - FLan. 4482. Spanish-American Literature: Poetry *
 - FLan. 4491. The Literature of the Mexican Revolution
 - FLan. 4920-99. Directed Group Study *Mexican American Studies
 - E. Program electives. Eight to nine units of program electives selected from the following:
 - Anth. 3515. Mexico and Central America
 - Anth. 3820. Folklore *

* Course must be certified by the Chair of Mexican American Studies or an authorized adviser to have suitable Chicano content.



- Anth. 4920-99. Directed Group Study *
- FLan. 1407. Elementary Spanish for Chicanos
- FLan. 2408. Intermediate Spanish for Chicanos, I
- FLan. 3401. Advanced Spanish Composition and Syntax I
- FLan. 3402. Advanced Spanish Composition and Syntax II
- FLan. 3403. Advanced Spanish Composition and Syntax III
- FLan. 3461. Introduction to Spanish-American Literature: Before the 19th Century
- FLan. 3462. Introduction to Spanish-American Literature: 19th Century Romanticism and Modernism
- FLan. 3463. Introduction to Spanish-American Literature: From 1910 to the Present
- FLan. 4461. The Contemporary Literature of One Spanish-American Country *
- FLan. 4468. Spanish-American Literature: The Short Story *
- FLan. 4482. Spanish-American Literature: Poetry *
- FLan. 4491. The Literature of the Mexican Revolution
- FLan. 4920-99. Directed Group Study *
- Geog. 3510. Geography of Mexico, Central America, and the Caribbean Islands
- Hist. 3600. Latin America: Colonial Period
- Hist. 3601. Latin America: Since 1825
- Hist. 3500. History of California
- Hist. 3621. Mexico to 1821
- Hist. 3622. Mexico Since 1821
- Hist. 4801-99. Special Problems in History *
- Hist. 4920-99. Directed Group Study *
- MAS 1020. The Mexican American Student in Contemporary Society
- MAS 1510. The Rhetoric of the Chicano Revolution
- MAS 3020. The Language of the Barrio
- MAS 4315. Urban Chicano Life
- MAS 4405. The Cultural Context of Mexican American Education
- MAS 4130. Barrio Projects
- Phil. 2801. Intellectual Antecedents of Chicano Thought
- Pol. Sci. 3330. Pressure Groups and Political Power
- Pol.Sci. 3411. Law and the Poor
- Pol.Sci. 4170. Selected Problems in American Government *
- Soc. 3416. The Mexican American Family
- Soc. 3520. Minority Groups *
- TEd. 4400. The Chicano and the Schools
- Elective
- F. Foreign Language..... 0-24 units
Demonstrate a reading knowledge of Spanish. Proficiency may be demonstrated either by two years of college-level course work or by examination.

Unit Summary

a. General Education **	76	
b. Major: courses in Mexican-American Studies	16-25	} 50-76 units
courses in supporting fields **	26-60	
B.A. degree total	186	

COURSES

1020. The Mexican American Student in Contemporary Society (4)

A study of the problems faced by the Mexican-American Student in contemporary American educational institutions with a focus on higher education. Prerequisite: Departmental consent. (F)

* Course must be certified by the Chairman of Mexican-American Studies or an authorized adviser to have suitable Chicano content.

** Up to 55 units of these courses may fulfill both a major and G.E. requirement, but units are counted only once toward the 186-unit total for the degree.

1407. Elementary Spanish for Chicanos (4)

(See FLan. 1407 for course description.)

1510. The Rhetoric of the Chicano Revolution (4)

The development and acquisition of communication techniques through critical examination and evaluation of the speeches and writings of prominent exponents of the Chicano Revolution. (Y)

1920-1999. Directed Group Study (1-4)

2001. The Chicano in Contemporary Society—I (4)

A study of the Mexican-American people in the United States with emphasis on historical origins, cultural values and expression, social organization, and social and political conflict with Anglo-American society. (F)

2002. The Chicano in Contemporary Society—II (4)

A study of Mexican-American people in rural life in the United States. Social conditions, types of employment, working conditions, labor unions. Law and the Chicano. Limited field work on a special topic under supervision of the instructor. Prerequisite: MAS 2001. (W)

2003. The Chicano in Contemporary Society—III (4)

A study of the conditions of urban life of Mexican-Americans. Life in the *barrio*, educational problems, employment, cultural invention, accommodation, and political organization. Limited field work on a special topic under supervision of the instructor. Prerequisite: MAS 2001. (Sp)

2408. Intermediate Spanish for Chicanos, I (4)

(See FLan. 2408 for course description.)

2409. Intermediate Spanish for Chicanos, II (4)

(See FLan. 2409 for course description.)

2801. Intellectual Antecedents of Chicano Thought (4)

(See Phil. 2801 for course description.)

3020. The Language of the Barrio (4)

A study of Chicano/Pocho Spanish as spoken in the barrios of the American Southwest. Prerequisite: Knowledge of spoken Spanish. (Y)

4000. Senior Seminar in Mexican American Studies (4)

Intensive study of special topics related to Chicanos as a minority group in the United States. Prerequisites: MAS 2001, -2, -3, and upper-division standing. (Sp)

4130. Barrio Projects (1-4)

Supervised Barrio field work in a community, school or organization serving Chicanos. Three weekly hours field work per unit of credit. Repeatable maximum 12 units credit. Prerequisite: Consent of instructor. (F, W, Sp)

4315. Urban Chicano Life (4)

Overview of Chicano life in urban centers of the San Francisco Bay Area. Study of the economic, social, and demographical problems of various Chicano communities. (Y)

4400. The Chicano and the Schools (4)

(See TEd. 4400 for course description.)

4405. The Cultural Context of Mexican American Education (4)

A study of organizational structures and objectives in American education as these relate to the cultural diversity and regional variations of the Chicano. (Y)

4900. Independent Study (1-4)

4920-4999. Directed Group Study (1-4)

MUSIC

(Department of Music; School of Arts, Letters and Social Sciences)

Professors Emeritus: Norman R. Cory, Karl D. Ernst

Professors: Robert D. Basart, Harry H. Carter, Denis M. DeCoteau, Glenn L. Glasow, C. Allen Gove (Chair), Leland R. Lincoln, Marvin D. Nelson, Nathan Rubin, Rudolph B. Saltzer, Donald King Smith, David R. Sprung

Associate Professors: Roberta Brokaw, Eleanor D. Cohen, Carl J. Eberhard, Ernst Gloe, Daniel B. Livesay, Kenneth Z. Mansfield, Jerome P. Neff, David B. Stein, Ellen Wasserman, Harold P. Whelan, William G. Wohlmacher

Assistant Professors: Tom Acord, Edwin L. Barlow

Lecturers: James M. Bertram, Jerry A. Dagg, Wenonah Govea, Merrill Hoover, Philip Shoptaugh, Carl Stanley, William Trimble

Graduate Adviser: Glenn L. Glasow

GENERAL INFORMATION

The Department of Music offers an undergraduate program leading to the Degree of Bachelor of Arts in Music and a graduate program leading to the degree of Master of Arts in Music. Both degrees are fully accredited by the National Association of Schools of Music.

The curriculum is designed to provide a foundation for a student entering public school or private teaching, a career as a professional performer, or may serve as preparation for further, more specialized study in graduate school. A number of performance groups offer opportunities for public performances of a wide variety of important musical literature.

All music majors have the advantage of continuous applied lessons with instrumental, vocal or composition teachers on the faculty. These weekly private lessons are without direct cost to the student beyond the regular University registration fees.

In addition to its degree curricula, the department offers a number of courses designed especially for non-music majors. Further, non-music majors are encouraged to take advantage of major courses for which they are qualified.

ADVANCED PLACEMENT

See page 69 for Advanced Placement Test equivalencies in Music.

The Music Major Leading to a B.A. Degree

Requirements

I. Complete the 76-unit requirement in general education required for B.A. and B.S. degrees.	
II. Courses in Music	84 units*
1. Lower Division.....	46 units
Mus. 1027, 1028, 1029. Sightsinging I, II, III.....	(3)
Mus. 1031, 1032, 1033. Music Theory I, II, III	(9)
Music 1210 thru 1270 Applied Music (major performance media)**	(12)
Music 2031, 2032, 2033 Music Theory IV, V, VI	(12)
Mus. 2155, 2156. Introduction to Music Literature I, II	(4)
Music 5501-05, 5509-15 Music Performance Activities	(6)
2. Upper Division.....	38 units
Music 3034. Music Theory VII.....	(4)
One of: Music 3041, 3042; Music 3046, 3047; Music 3061, 3062 Original Composition and Analysis, or Stylistic Composition and Analysis, or Counterpoint	(4)

* No more than 98 units in Music courses may be applied toward the degree.

** 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 below (I.A.); or, with permission of a composition instructor, may enroll without audition for Applied Piano.



Music 3155, 3156, 3157 Music Literature and Analysis I, II, III	(9)
Music 3210 thru 3270 Applied Music (major performance media) **	(12)
Music 5501-05, 5509-15 Music Performance Activities	(6)
3. Music 5506. Chamber Ensembles. Three units to be taken in three different quarters	(3)

Special Requirements of the Department of Music

I. Applied Music

- 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.
- 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.
- 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.
- Applied instruction may not exceed 12 units in lower division and 12 units in upper division without permission from the department chair.
- 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

- Music majors are to appear each year in regularly scheduled student recitals as determined by the department.
- Specific recital performance requirements are outlined in the Handbook for Undergraduate Music Majors.
- No recitals may be given during the last week of classes or during the examination period.
- 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

- 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.
- The 3 units of chamber ensemble required for the B.A. Major in Music must be taken in 3 different quarters.

IV. Proficiency Tests

- 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.

** 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 below (I.A.); or, with permission of a composition instructor, may enroll without audition for Applied Piano.

- 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.
- 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 Music 2313 is passed.
- All keyboard majors are required to pass a proficiency exam in Sight-reading, Keyboard Harmony and Open-score reading or pass Music 2314, 2315, 2316.

V. Further courses recommended

Study of a foreign language is recommended for non-credential candidates.

Recommended Sequence of Music Courses for Four-Year Baccalaureate Program

First Year

Music 1031	3	Music 1032	3	Music 1033	3
Music 1027	1	Music 1028	1	Music 1029	1
Music 1210-1270	2	Music 1210-1270	2	Music 1210-1270	2
Music 5500	1	Music 5500	1	Music 5500	1
	7		7		7

Second Year

Music 2031	4	Music 2032	4	Music 2033	4
Music 2155	2	Music 2156	2	Music 1210-1270	2
Music 1210-1270	2	Music 1210-1270	2	Music 5500	1
Music 5500	1	Music 5500	1		7
	9		9		

Third Year

Music 3034	4	One of Mus. 3041, -42, -46, -47, -61 or -62	4	Music 3210-3270	2
Music 3210-3270	2			Music 5500	1
Music 5500	1	Music 3210-3270	2	*Music 5506	1
*Music 5506	1	Music 5500	1		4
	8	*Music 5506	1		
			8		

Fourth Year

Music 3155	3	Music 3156	3	Music 3157	3
Music 3210-3270	2	Music 3210-3270	2	Music 3210-3270	2
Music 5500	1	Music 5500	1	Music 5500	1
	6		6		6

Music Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)

Area IV D

Mus. 1008 or 1901 (4 units)

Area IV E At least two of the following courses:

Mus. 1010 (3 units)

Mus. 1311, 1312 (2 units)

Mus. 1901 or 1008 (4 units)

Mus. 4410 (4 units)

Area V A 18-20 units from the following courses:

Mus. 1313 (1 unit)

Mus. 1910 (4 units)

* Suggested sequence. Chamber Ensemble requirement may be fulfilled during any three different quarters.

- Mus. 3115 (4 units)
- Mus. 4425 (3 units)
- Mus. 5430 (3 units)
- Any courses in Basic Orchestral Instruments or Applied Music Series (3 units)
- Mus. 5506 (2-3 units)

Liberal Arts Track**Credential Track** (path for students seeking credential after graduation)

Area IV D

- Mus. 1008 or 1901 (4 units)

Area IV E At least two of the following courses:

- Mus. 1009 (4 units)
- Mus. 1311 (1 unit)
- Mus. 1901 (4 units)
- Mus. 4410 (4 units)

Area V A 28-33 units from the following courses:

- Mus. 1010 (3 units)
- Mus. 1312-1313 (2 units)
- Mus. 1910 (4 units)
- Mus. 3115 (4 units)
- Mus. 4410 (4 units)
- Mus. 4425 (3 units)
- Any course in the Basic Orchestral instruments or Applied Music Series (4 units)
- Mus. 5506 (4 units)
- Approved Music Electives (4-5 units)

Single Subject Waiver Program: Music

The following program has been approved by the State Commission for Teacher Preparation and Licensing as a waiver for the Single Subject Music.

Music 1031-2-3, 2031-2-3.....	21 units
Piano Proficiency Exam	
Music 2321-2.....	2 units
Music 3155-6-7.....	9 units
Music 3370, 3380.....	6 units
8 units from the following:	
3041-2, 3046-7, 3061-2, 3034.....	8 units
8 units of Applied Music from 3210-70.....	8 units
8 units of Music Performance Activities from 5500-5550.....	8 units
2 units of Chamber Ensemble 5506.....	2 units
6 units from the following:	
2331-2-3, 2341-2-3, 2351-2, 2361.....	6 units
	70 units

The Master of Arts Degree in Music**Objectives of This Curriculum**

To provide an opportunity for advanced study to:

- (1) School and college music teachers who wish to increase their professional effectiveness.
- (2) Students who plan to continue graduate study in institutions that grant doctoral degrees.

GENERAL INFORMATION

The University offers the degree of Master of Arts in Music, with a choice of four areas of emphasis: Theory-Composition, History and Literature, Performance, and Music Education. The candidate must observe the general requirements stated elsewhere in this catalog as well as the more specific Departmental requirements stated here. The candidate is responsible for seeing an adviser and planning a tentative program, and for completing the prerequisites to program approval.

REQUIREMENTS OF THE DEGREE**Admission to the Program as a Conditionally Classified Student**

A student may be admitted to the program:

1. if he or she has met the general requirements for graduate standing, including having made application for the graduate program in music;
2. if he or she holds a baccalaureate degree or its equivalent with a major in music with an upper-division grade point average of at least 3.0 (B) in music.

Classification in the Program

A student may be classified if he or she:

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. Prior to taking these examinations up to, but no more than 20 units of graduate music will be counted toward the master's degree.
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.

Advancement to Candidacy

A student who holds Classified Graduate standing may be considered for Advancement to Candidacy when he or she:

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.

Curricular 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: theory-composition, 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. at least 3 units in addition to those in the area of emphasis must be completed in each of the following areas: theory-composition, history-literature, music education;
 6. 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 adviser and must be at the 3000 level or above);
 7. up to, but no more than 3 units of applied music, when approved by an adviser, may be applied toward degree requirements by candidates outside the performance area of emphasis.
- C. present a thesis or final project in one of the following forms:
 1. in the history-literature area a standard research thesis
 2. in the theory-composition area an original composition with accompanying analytic notes
 3. in the music education area either a standard research thesis or a special paper (Music 6899)
 4. in the performance area a final graduate recital
- D. pass both written and oral examination as may be required by the Department upon completion of all course work.

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 adviser in the Department.

4027, 4028. Dictation and Sightsinging

4031. Studies in Chromatic Harmony

4041. Analysis and Form

4054. Instrumentation

4064. Seminar in Orchestration

4110. Seminar in Music Literature

4120. Seminar in Music History

3000-level courses may be acceptable for the master's degree with approval of the graduate adviser.

UNDERGRADUATE COURSES MUSIC THEORY

1008. Music Theory for Non-Music Majors (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 Subjects Credential programs. (F, W, Sp)

1009. Music Theory for Non-Music Majors (4)

Continuation of Music 1008 with emphasis on developing individual skills through musical creativity. Recommended for non-music majors or minors who follow the Multiple Subjects Credential Program. Prerequisites: Music 1008 or consent of the instructor. (W, Sp)

1027, 1028, 1029. Sightsinging I, II, III (1 each)

- I. Studies in sightsinging to develop individual proficiency. To be taken concurrently with Theory I. Two hrs. act. (F)
- II. Studies in sightsinging to develop individual proficiency. To be taken concurrently with Theory II. Two hrs. act. (W)
- III. Studies in sightsinging to develop individual proficiency. To be taken concurrently with Theory III. Two hrs. act. (Sp)

1031, 1032, 1033. Music Theory I, II, III (3 each)

- I. The integrated study of tonal harmony, counterpoint, analysis and ear-training. (F)
- II. Continuation of Music 1031. Prerequisite: Music 1031 (W)
- III. Continuation of Music 1032. Prerequisite: Music 1032 (Sp)

2031, 2032, 2033. Music Theory IV, V, VI (4 each)

- IV. Continuation of Music 1033. Prerequisite: Mus. 1033 (F)
- V. Continuation of Music 2031. Prerequisite: Mus. 2031 (W)
- VI. Continuation of Music 2032. Prerequisite: Mus. 2032 (Sp)

3034. Music Theory VII (4)

Twentieth Century music up to the present; extension of tonality; non-tonal music. Analysis and compositional exercises. Prerequisite: Music 2033 or equivalent. (F)

3041, 3042. Original Composition and Analysis I, II (4 each)

Directed composition centered around but not limited to Twentieth Century style; the study and use of various compositional techniques.

- I. Stressing control of small forms and light textures. Prerequisite: Mus. 3034. (W)
- II. Special problems and projects. Prerequisite: Mus. 3034. (Sp)

3046, 3047. Stylistic Composition and Analysis, Twentieth Century Composers I, II (4 each)

Music of some important composers analyzed and used as models for writing. A continuation and elaboration of Mus. 3034 (Theory VII). Classroom performance of student compositions.

- I. Music of Bartok, Stravinsky; others. Prerequisite: Mus. 3034. (W)
- II. Music of Schoenberg, Berg, Webern; recent music (1950-present). Prerequisite: Mus. 3034. (Sp)

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. (W)

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. (Sp)

4027, 4028. Dictation and Sightsinging I, II (4 each)

- I. Supplementary work in these skills, individualized as far as possible, for the intermediate to advanced student. Prerequisite: Theory VI or consent of instructor. (F or W)
- II. Dictation and sightsinging at two or more levels of difficulty. With dual assignments and grading, students may enter II without taking I, but will be ineligible to take I for credit later. Prerequisite: Theory VI or consent of instructor. (W or Sp)

4031. Studies in Chromatic Harmony (4)

Advanced work in this area with emphasis on analysis and writing. Prerequisite: Theory VI. (Y)

4041. Analysis and Form (4)

Advanced work in musical analysis associated with a review of traditional forms. Prerequisite: Mus. 2033. (Y)

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. (Y)

4064. Seminar in Orchestration (4)

Advanced work in scoring for orchestra and other instrumental ensembles. Prerequisite: Mus. 4054. (Y)

MUSIC HISTORY AND LITERATURE

1801. Music for the General Student, I (5)

The study of selected compositions from Medieval times through the early 18th century, including the music of Monteverdi, Vivaldi, Handel and J. S. Bach, etc. Course designed for students whose major field is not music. Four hrs. lect., 2 hrs. arranged as concert attendance.

1802. Music for the General Student, II (5)

The study of selected compositions from the late 18th and early 19th century music of Haydn, Mozart, Beethoven, etc. Course designed for students whose major field is not music. Four hrs. lect., 2 hrs. arranged as concert attendance.

1803. Music for the General Student, III (5)

The study of selected compositions from the 19th and early 20th century, music of Berlioz, Brahms, Debussy, Stravinsky, etc., including early jazz. Course designed for students whose major field is not music. Four hrs. lect., 2 hrs. arranged as concert attendance.

1901. Music of Our Time (4)

A study of the forms and styles of 20th century music; concert hall, stage, folk and popular. Previous formal music training not necessary. (F, W, Sp)

1902. Music for Listeners, The Romantic Orchestra (4)

A study, from the listener's viewpoint, of the most frequently performed orchestral works of the Romantic Period. Representative composers are: Berlioz, Liszt, Chopin, Moussorgsky, Tschaikovsky, Brahms, Richard Straus, and Mahler. Previous musical training is not necessary.

1910. History of Jazz (4)

Periods, major performers and composers, trends, influences, stylistic features and cultural significance. (F, W, Sp)

2112. Survey of Music Literature (4)

A basic course in music understanding designed for the person without formal music training. Emphasis on music as a communicative art, stressing music media, periods, and styles.

2155, 2156. Introduction to Music Literature I, II (2 each)

A basic course in the study and analysis of significant musical compositions from the vocal and instrumental repertoire.

I. Music of the Renaissance, Baroque, and classical Periods. Prerequisite: Mus. 1033 or consent of instructor. (F)

II. Music of the Romantic Period and the Twentieth Century. Prerequisite: Mus. 1033 or consent of instructor. (W)

3115. Music of the Black American (4)

Organization and development of the types, forms, and styles of music as they relate to the history of the Black American.

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 and 2155, 56; 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. (Y)

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. (Y)

APPLIED MUSIC**1210-1270. Applied Music (2 each)**

Individual advanced instruction for music majors. May be repeated for credit up to a maximum of 12 units. (F, W, Sp)

1210. Piano	1234. Harp
1211. Organ	1235. Guitar
1212. Harpsichord	1240. Flute
1220. Voice	1241. Oboe
1230. Violin	1242. Clarinet
1231. Viola	1243. Bassoon
1232. Cello	1244. Saxophone
1233. String Bass	1250. Trumpet

1251. French Horn

1252. Trombone

1253. Baritone

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 (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. (Y)

1314, 1315, 1316. Basic Piano Class (1 each)

Group instruction in piano for music majors not majoring in piano. Prerequisites: Mus. 1314 is prerequisite to Mus. 1315; Mus. 1315 is prerequisite to 1316. (F, W, Sp)

2311, 2312, 2313. Intermediate Class Piano (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.

2314. Keyboard Sight-Reading (1)

Sight reading technique as applied to keyboard literature. Prerequisite: Music major. Keyboard concentration. (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 majors at sophomore level or above. (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 majors at sophomore level or above. (Sp)

3210-3270. Applied Music (2 each)

Individual advanced instruction for music majors. May be repeated for credit. (F, W, Sp)

3210. Piano	3243. Bassoon
3211. Organ	3244. Saxophone
3212. Harpsichord	3250. Trumpet
3220. Voice	3251. French Horn
3230. Violin	3252. Trombone
3231. Viola	3253. Baritone
3232. Cello	3254. Tuba
3233. String Bass	3260. Percussion
3234. Harp	3270. Composition— <i>Prerequisites:</i> (1)
3235. Guitar	reasonable proficiency in at least one other
3240. Flute	area of applied music; (2) knowledge of music
3241. Oboe	theory equivalent to first year theory;
3242. Clarinet	and (3) consent of instructor.

MUSIC PERFORMANCE ACTIVITIES**2220. Lyric Diction for Singers—Italian (1)**

Adapting language to singing; drill on phonetics; application of techniques; performance of vocal literature. Prerequisites: Voice concentration. (Y)

2221. Lyric Diction for Singers—German (1)

Adapting language to singing; drill on phonetics; application of techniques; performance of vocal literature. Prerequisites: Voice concentration. (Y)

2222. Lyric Diction for Singers—French (1)

Adapting language to singing; drill on phonetics; application of techniques; performance of vocal literature. Prerequisites: Voice concentration. (Y)

2225. Jazz Improvization (1)

Nomenclature, foundation exercises, improvising on tunes, interpreting chord changes, constructing jazz choruses. Small ensembles will be formal to provide playing experience in jazz improvization. May be repeated for credit. Prerequisite: Consent of instructor. (Y)

5500–5550. Music Performance Activities (1 each)

Music activities are open to all qualified students and may be used to satisfy the general education requirement in the performing arts. They may be repeated for credit. Music majors are required to enroll in one major performance group each quarter. (F, W, Sp)

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|--------------------------|---------------------------------|
| 01. University Chorus | 10. Jazz Workshop † |
| 02. University Orchestra | 11. Symphonic Band |
| 03. Concert Band | 12. Repertory Chorus |
| 04. University Singers | 13. Afro-American Ensemble |
| 05. Opera Workshop | 14. String Orchestra |
| 06. Chamber Ensemble *† | 15. University Oratorio Society |
| 09. Piano Accompaniment | |

MUSIC EDUCATION**1010. Basic Musicianship Through Guitar for Non-Music Majors (3)**

Development of music reading and understanding through study of the guitar. Recommended for non-music majors pursuing a Credential Program. Students provide own guitar. Fulfills Performing Arts and Activities Requirement. (A)

2321, 2322, 2323. Basic Voice (1 each)

Class instruction in fundamentals of singing. Required of music credential majors. Open also to other qualified students. May be repeated for credit. Mus. 2321 prerequisite for 2322. Mus. 2322 prerequisite for Mus. 2323. (F, W, Sp)

2331–33, 2341–43, 2351–2, 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, W)
 2332. Cello and Bass (F, W)
 2333. Advanced Basic Strings—Prerequisite: 2331 and 2332 (Sp)
 2341. Clarinet (F, W, Sp)
 2342. Double Reeds—Prerequisite: 2341 (Y)
 2343. Flute and Saxophone—Prerequisite: 2341 (F, W, Sp)
 2351. Trumpet and French Horn (Y)
 2352. Trombone and Tuba—Prerequisite: 2351 (Y)
 2361. Percussion (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. (Y)

3380. Choral Conducting (3)

Special techniques of choral conducting including vocal and score reading and analysis, interpretation, and rehearsal through observation and laboratory experience. Prerequisites: 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)

* The Chamber Ensemble schedule will be available in the music office during the pre-registration period for each quarter.
 † May satisfy the Music Performance Activities requirement by permission of the Department Chair.

4410. Folk Music in the Elementary Classroom (4)

A critical study of folk and art music of various cultures for the general vocal and instrumental classroom activities of the integrated curriculum. Recommended for non-music majors or minors who follow the Multiple Subject Credential program. Prerequisites: Mus. 1008 or consent of instructor. (Y)

4425. Music Literature for Children (3)

Analysis of music literature for children with individual projects, emphasis on use of song materials, recordings and multimedia approaches for the elementary classroom. Prerequisites: Mus. 1008 or equivalent or consent of instructor. (Y)

5430. Music in the Elementary School (3)

Music aims, methods, materials and their organization for elementary classroom teachers. Application to adopted state music texts. Recommended for all Multiple Subject Credential classroom teachers. Two hrs. lect., 2 hrs. act.

MISCELLANEOUS COURSES**1920–1999. Directed Group Study (1–4)****4900. Independent Study (1–4)****4920–4999. Directed Group Study (1–4)****5900. Independent Study (1–4)****5920–5999. Directed Group Study (1–4)****GRADUATE COURSES****GENERAL COURSES****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. (Y)

6899. Special Project (1–3)

Research on approved topic. Required of Music Education candidates who do not elect thesis. Prerequisite: Advancement to candidacy and an officially appointed adviser. (A)

6910. Thesis (1–6)

Supervised research on approved topic for partial fulfillment of Masters degree, for Theory-Composition, History-literature candidates. May be elected by Music Education candidates. Prerequisites: advancement to candidacy and officially-appointed thesis adviser. (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. Prerequisite: Mus. 3380, 3390 or equivalents. (Y)

6410. Curriculum Seminar in Music Education (3)

Music curriculum practices from elementary grades through junior college; survey of recent trends; ways of effecting curriculum change. Prerequisite: graduate standing in music or consent of instructor. (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. (Y)

6416. Seminar in Music and the Humanities in the Secondary School (3)

Research into significant forms and styles of music as it relates pedagogically to the fine arts, literature, and drama. Prerequisite: graduate standing in music or consent of instructor. (Y)

6460. Seminar in Foundations of Music Education (3)

An historical study of music education in this country with emphasis upon its philosophic and psychological bases. Prerequisite: graduate standing in music or consent of instructor. (Y)

MUSIC HISTORY AND LITERATURE**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. Prerequisite: graduate standing in music or consent of instructor, Music 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. Prerequisite: graduate standing in music or consent of instructor, Music 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. Prerequisite: graduate standing in music or consent of instructor, Music 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. Prerequisite: graduate standing in music or consent of instructor, Music 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. 3033 or 3043 or consent of instructor. (Y, alt. yrs.)

6180. Contemporary Music (3)

Research of developments in music since 1950, including recent 12-tone theory, aleatoric techniques and electronic music. Prerequisite: Mus. 4061 or consent of instructor. (Y)

MUSIC PERFORMANCE ACTIVITIES**5500-5550. Music Performance Activities (-)**

Although ensemble participation is expected of each graduate student, credit earned here is not included in the 45 quarter units required for the master's degree in music. (See the undergraduate section of this Catalog for course description under 5500—Music Performance Activities.) (Y)

MUSIC THEORY**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. 4047 or 4057 or consent of instructor. (Y)

6051. Seminar in Theoretical Problems (3)

Special problems in music theory, analysis. Directed reading and reports. May be repeated for credit. Prerequisite: Music. 6015 or 6016 or consent of instructor. (Y)

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	6241. Advanced Oboe
6211. Advanced Organ	6242. Advanced Clarinet
6212. Advanced Harpsichord	6243. Advanced Bassoon
6220. Advanced Voice	6244. Advanced Saxophone
6230. Advanced Violin	6250. Advanced Trumpet
6231. Advanced Viola	6251. Advanced French Horn
6232. Advanced Cello	6252. Advanced Trombone
6233. Advanced String Bass	6253. Advanced Baritone
6234. Advanced Harp	6254. Advanced Tuba
6235. Advanced Guitar	6260. Advanced Percussion
6240. Advanced Flute	6270. Advanced Composition

MISCELLANEOUS COURSES**5900. Independent Study (1-4)****5920-5999. Directed Group Study (1-4)****6900. Independent Study (1-4)****6920-6999. Directed Group Study (1-4)**

NATIVE AMERICAN STUDIES

(Native American Studies Program; School of Arts, Letters and Social Sciences)

Assistant Professor: Roxanne Dunbar Ortiz

MINOR IN NATIVE AMERICAN STUDIES

The Minor in Native American Studies provides students with an opportunity to study traditional Native cultures, the problems of inter-cultural contact, and the special problems encountered by Native Americans in contemporary America. The program is designed for students who wish to complement their baccalaureate majors with an integrated group of courses from various disciplines bearing upon Native American Studies. Some of the courses in the minor may be used simultaneously to satisfy major and general education requirements.

Advisers for the minor are available in Native American Studies and in the Anthropology and History departments.

Requirements for the Minor

I. Eight units as follows:

NAS 2100. The Native American Experience (4)

plus *one* of:

Anth. 1000. Introduction to Anthropology (4)

Anth. 2300. Principles of Cultural Anthropology (4)

Soc. 2000. Introduction to Sociology (4)

II. Twelve to sixteen units from:

NAS 2200. Contemporary Native American Life (4)

NAS 2300. Native American World View (4)

NAS 2500. Native American Oral Tradition (4)

NAS 3200. Native American Liberation Movements (4)

NAS 3210. History of Native American Education (4)

NAS 3400. Native American Law and Federal Policy (4)

NAS 4200. Native Americans in Urban Societies (4)

NAS 4400. Tribal Governments (4)

III. Eight to twelve units, selected with an adviser in Native American Studies from:

Anth. 3240. Archeology of North America (4)

Anth. 3500. Indians of North America (4)

Anth. 3505. Indians of California (4)

Anth. 3515. Ethnography of Mexico and California (4)

Anth. 3820. Folklore (4)

Anth. 4330. Culture Change (4)

Anth. 4500. The American Southwest (4)

Hist. 3511. The Westward Movement (4)

Hist. 3500. History of California (4)

P.E. 2203. Dance of American Indians (1)

P.E. 3202. Dance Rituals of American Indians (3)

Phil. 2110. Racial Conflict and Ethical Values (4)

Soc. 3520. Minority Groups (4)

Soc. 4515. Social Movements (4)

T.Ed. 5038. Multiculture Education (4)

Total Units for the Minor 32 units

(at least 19 units must be upper-division)

At least 18 units must be taken in courses from departments other than the student's major.

COURSES

2100. The Native American Experience (4)

Survey of the Native American experience in North America. Topics covered: History, education, religion, socioeconomic conditions, and psychology. Results of cultural contact. (F,W,Sp)

2200. 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)

2300. Native American World View (4)

A comparative study of American Indian belief systems, world views, and religions, analyzing their roles and importance in Indian life. Prerequisites: NAS 2100 or consent of instructor. (Y)

2500. Native American Oral Tradition (4)

American Indian poetry, narrative, oratory, myths; their relationship to Indian life past and present. The epic origin tales, ritual drama, and current Indian authors. Prerequisite: NAS 2100 or consent of instructor. (Y)

3200. 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: NAS 2100 or consent of instructor. (Y)

3210. History of Native American Education (4)

American Indian education since 1568. Indian education today. Institutional and social problems of Indians in American schools. Laws dealing with Indian education. Colonial schools. Prerequisite: NAS 2100 or consent of instructor. (Y)

3400. Native American Law and Federal Policy (4)

Theory of American Indian Law. Legal bases of tribal existence. The legal rights of Native Americans. Case studies of important topics. Prerequisite: NAS 2100 or consent of instructor. (Y)

4200. Native Americans in Urban Societies (4)

Problems of adjustment of the Native American to urban life. Dynamics of migration to the cities. Comparative social structures of urban and rural Indians. Prerequisites: NAS 2100 and one other NAS course.

4400. Tribal Governments (4)

The operation of tribal governments. The Bureau of Indian Affairs, Department of Interior, and other Federal agencies. Native and European concepts of "tribe." Prerequisite: NAS 2100 and one other NAS course. (Y)

4900. Independent Study (1-4)

NURSING

(Department of Nursing, School of Science)

Professor Emeritus: Dora E. Blackmon

Associate Professor: Jane A. M. Frazier (Chair)

Assistant Professors: Martha A. Auvenshine, Arlene J. Kahn, Linda Kinrade, Ilene R. Lubkin, Anne G. Packer, Ann H. Shanck, Mary E. Stevens

Instructor: Barbara F. Chmielewski

Lecturers: Clarice J. Eckstrom, Dolores J. Gunn, La Vonne Lynch, Lynda LaMontagne, Pamela Reuling, Harvey L. Rosenthal

The Nursing Major Leading to a B.S. Degree

PHILOSOPHY

We, the nursing faculty of California State University, Hayward, believe that man is holistic and unique, possessing intrinsic dignity and worth.

He is biological and psychosocial in nature. His potential, while influenced by environment and heredity, is determined by his capacity to adapt and modify both himself and his environment. Man can be viewed as a dynamic system in a continual state of activity and change which aims at self-perpetuation, need gratification, and management of stress. Man is dependent, independent, and interdependent.

Man is a social being, a member of a family, group, and a society. In a collective manner, man participates in political, social and economic systems. These provide complex patterns of interactions and relationships among individuals. These patterns form a society. Society provides for the spiritual, educational, and health needs for the common good of its members. It also imposes restrictions and responsibilities. As an individual, man experiences continuous change as a result of the complexity of society. Man influences society through his behavior.

Wellness is dependent upon the individual's adaptive responses to internal and external stimuli. It is a continuum on which an alteration in the individual's capacity to fulfill needs leads to an altered level of wellness. Wellness is a right and responsibility of all people. They may require the assistance of members of the health care system in determining and promoting their level of wellness. Health and wellness indicators are used as guidelines for progression toward the identification of present and prediction of future health care needs.

Because of the depth, breadth, and interdisciplinary nature of professional nursing, education takes place at the baccalaureate level in institutions of higher learning. Professional nursing is an interactive decision making process that reflects perception, thought and feeling and is directed toward modifying and supporting the individual's adaptive responses in relation to wellness. Nursing combines nursing theories with the concepts and principles from natural, social, health sciences, and the humanities in a unique way.

The professional nurse in collaboration with the client, determines the need for nursing care. She utilizes the nursing process which includes assessing, planning, intervening and evaluating for individuals and groups in a variety of settings. The professional nurse is accountable for her interventions. She is a beginning consumer of nursing research and uses relevant findings in nursing actions. She is an increasingly independent member of the health team. In response to the magnitude of increasing knowledge she will continue to seek new knowledge and evaluate emerging professional nursing roles and functions.

As a community member professional nurses assist people by intervening to make health care accessible and available to the consumer. The nurse shares responsibility for improving the health and welfare of all people independently and interdependently through collaboration, coordination, and consultation with an interdisciplinary health team. She is both a consumer and provider of teaching and learning.

Teaching-learning is a goal-directed process that results in modification of behavior. The learning process occurs through the establishment of goals, level of motivation, and degree of active participation. The learner student identifies and solves problems, develops concepts, makes judgements, analyzes, evaluates, and formulates valid conclusions.

The teacher designs a structure in which the learning process is facilitated. Learning experiences are organized to utilize fundamental concepts and principles and relationships. The

teacher assists the learner to utilize past experiences to explore current learning situations and to integrate these learning experiences into a meaningful whole.

We believe the professional nurse has basic understandings and abilities for graduate study in clinical nursing, teaching, research, community service and leadership. The education of the professional nurse at the baccalaureate level provides the impetus for continued lifelong professional and personal fulfillment and learning.

CHARACTERISTICS OF GRADUATES

The curriculum is designed to prepare individuals for beginning professional nursing practice and to provide a foundation for graduate study. Upon completion of the requirements for the Bachelor of Science degree....graduates of the Department of Nursing should be able to:

1. Provide individualized, and knowledgeable care to meet the nursing needs of clients of all ages in a variety of settings.
2. Utilize the nursing process to identify and assess the nursing needs of individuals and families, and to plan, implement and evaluate their care independently or in collaboration with the client and other members of the nursing and health teams.
3. Help client adapt through planned and systematic use of teaching-learning strategies.
4. Participate in health maintenance and promotion for individuals, families and communities, and influence change congruent with society's present and future health needs.
5. Apply leadership process in consulting, planning, and coordinating care with consumers and other health workers to provide nursing services to individuals and groups.
6. Accept responsibility and accountability for nursing interventions and their results.
7. Use concepts and principles from the sciences, humanities, and nursing theories in making independent nursing judgements and decisions.
8. Select and apply clinical research findings to his/her nursing actions.
9. Continue to learn and grow as responsible members of the nursing profession and society. In response to the magnitude of increasing knowledge, she will continue to seek new knowledge and to examine and critically evaluate emerging professional nursing roles and functions.

REQUIREMENTS

- I. Complete the 76-unit requirement in general education, which applies to all majors. The general education requirements are satisfied by the completion of the Nursing Major, except for 4 units in Engl. 1001, 4 units of performing arts, 2 courses in humanities (8 units minimum), and 12 units of upper division general education.
- II. Complete the following:

	Units
Biol. 1000, 2061, 2062, 4010, 4060	21
Chem. 1601, 1602, 1603	15
HDev. 3800	4
Phil./Nurs. 2150	4
Phys. 1700, 1780	4
Spch. 1004	4
Social Science	12-13
Group A (2 courses)	
Anth. 3000 (4)	
Psych. 2000 (5)	
Soc. 2000 (4)	
Group B (1 course)	
Psych. 2010 (4)	
Soc. 2400 (4)	
Statistics (1 course)	
Stat. 1000 or 1100	4-5
Group Communication (1 course)	4
Psych. 3500 (4)	
Psych. 3520 (4)	
Soc. 4500 (4)	
Spch. 3510 (4)	
Nurs. 2012, 2013, 2305, 2306, 2307, 2308 (Level I)	24
Nurs. 3110, 3305, 3306, 3307, 3308, 3309, 3310, 3401 (Level II)	32

Nurs. 4207, 4208, 4213, Hist./Nurs. 4710 (Level III)	14
Nurs. 4301 & 4302 or 4303 & 4304 (Level III)	12
Total units in major *	154-156

The B.S. in Nursing requires 186 units for graduation.

III. California State University, Hayward permits students to petition to challenge courses by examination. Not more than 36 quarter units of credit obtained by examination may be applied toward the baccalaureate degree. Subject to the policies and procedures of the University, medical corpsmen, Licensed Vocational Nurses, and Registered Nurses may challenge some of the nursing courses by examination.

The following is an alternate track for California Registered Nurses who have demonstrated current proficiency in nursing practice. Other students will still be required to complete the above program:

68-70 units in related fields (noted above)	68-70
Biol. 4060, Nurs. 4207, 4208, 4213, and either 4301-2 or 4303-4	26
54 units of transferable Nursing courses	54
Nurs. 3712-3. Nursing Assessment I and II	4, 4
Nurs. 3715. Nursing Assessment Clinical Practice	2-5
Hist. 4710. History and Trends in Nursing	4
Total units in alternate track	162-167
Total units in regular major	154-156
Total units for the degree	186

IV. Clinical practice is an integral part of most nursing courses. This is provided at cooperating hospitals and health agencies in the Bay Area. Students are required to provide their own transportation to and from agencies, and to have a car to use during their Community Health Nursing experience. Students are required to have current malpractice insurance.

Clinical courses must be taken in sequence. Because of the heavy load of clinical practice and the need to make long-range commitments to the hospitals and health agencies, only one clinical course may be taken in any one quarter. Students should plan to spend nine quarters in school after they begin the Nursing Major.

V. Student Progression Policies:

If a student fails to earn twice as many progress points as units attempted in Clinical Nursing courses for any two quarters, the student is dropped from the Nursing Major.

LEVEL PROGRESSION POLICIES

Level Progression

1. After a student is accepted into the Nursing Major, nursing courses must be taken or successfully challenged in the proper sequence.
2. Any course in Levels I, II, and III for which the student receives a "D," "F," or "NC" grade must be repeated with a grade of "C" or better or "CR" if the student is to progress in the Nursing Major. A student who fails to earn a grade of "C" or better or a "CR" on the second attempt, will be prohibited from reentering the Nursing Major.
3. A student must earn a grade of "C" or better or a "CR" in each Clinical nursing course and maintain twice as many progress points as units attempted in Clinical Nursing courses in order to progress within the Nursing Major.
4. A student who wishes to repeat a Clinical Nursing course must:
 - a. Have a minimum of twice as many progress points as units attempted in Nursing major courses, including the course in which the student earned a "D", "F", or "NC."
 - b. The student must follow University procedure for repeating any nursing courses to have the earlier grade ignored.
5. Any student who is notified at any time before the end of the quarter of unsafe behavior(s), may not continue in the Clinical setting for the remainder of the quarter, and is dropped from the Nursing Major.
6. Any student who withdraws from a Clinical Nursing course, is dropped as a Nursing Major. The course may be repeated one time as a non-nursing major.
7. Prompt Review

The progression of any student not meeting level progression under items 2, 3, 4, 5, above

* The nursing courses must be taken in sequence.

will be reviewed, within two weeks, by a committee consisting of the following:

- Dean, School of Science or Associate Dean, School of Science
- Chair, Nursing Department
- Faculty member from another department within the School of Science appointed by the Dean, School of Science.

The student request for an appearance before this committee will be honored. Also present will be representative of the Nursing faculty from the Team involved.

Reentering Nursing Courses

- Students who withdraw from Clinical Nursing courses for physical and/or emotional reasons must submit a petition and have an interview with the Chair of the Department of Nursing before they will be permitted to reenter the nursing courses. They must present evidence (e.g., doctor's letter) that their current health status is satisfactory and that they are physically and/or emotionally able to care for patients in any Clinical setting. The final decision will rest with the Policy Committee of the Department of Nursing using appropriate consultation.
- A student who drops or withdraws from a nursing course or sequence of courses for whatever reason will only be allowed one additional enrollment in which to earn a grade of "C" or better or "CR".
- A student who withdraws from the University for two or more quarters must follow California State University, Hayward policies for readmission to the Nursing Major.

Selection of Students to be Permitted to Repeat Nursing Courses

- A consequence of dropping, withdrawing, or receiving below a "C" or "NC" in a nursing course is that there is no guarantee of space at any level, especially in the Clinical areas.
- A reentering—repeating student must meet new requirements (if there are any) at the time of repeating. There is no guarantee that a repeating student will be accepted as a Nursing Major. This will depend on space, requirements, and correction of factors which led to the initial withdrawal or unsatisfactory grade.

Disqualification—Being Dropped as a Nursing Major

- Any nursing course, in which a student receives a "D," "F," or "NC" must be repeated if the student desires readmission to the Nursing Major. A course may only be repeated one time. A student who fails to earn a grade of "C" or better or "CR" when repeating a course, will not be readmitted to the Nursing Major.
- A student who receives a "D," "F," or "NC" in two nursing courses will be dropped as a Nursing Major.
- Any situation in which a patient's safety has been seriously affected by a student's actions may lead to immediate dropping as a Nursing Major.

Reentry to the Nursing Major

If dropped from the Nursing Major, the student may reapply to the Nursing Major. There is no guarantee that a reapplying student will be accepted. This will depend on space, requirements, and corrections of factors leading to dropping. The final decision will rest with the Nursing Admissions Review Committee.

Leave of Absence from Nursing Major

Leave of absence may be granted according to the University planned educational leave as approved by the Department of Nursing Chair.

ACCREDITATION

The Nursing Department is fully accredited by the California Board of Registered Nursing and the National League for Nursing.

APPLICATION FOR THE NURSING MAJOR

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 Fall Quarter, 1979.

The requirements for admission are:

- Completion of the following courses with 2.5 grade point average:

	<i>Units</i>
Engl. 1004	4
Speech 1004	4
Biol. 1000, 2061, 2062, 4010	17

Chem. 1601, 1602	10
Two courses from:	
Psych. 2000	5
Soc. 2000	4
Anth. 3000	4

These courses are to be completed by the end of Spring Quarter, 1979.

- Overall 2.0 GPA
- Satisfactory scores on the Nursing Admissions Test Battery in Anatomy and Physiology, in Microbiology, and in Chemistry. (California licensed R.N.'s do not have to take these exams.)
- Evidence of good health:
 - Physical examination within the past 6 months reported on the proper form.
 - Negative P.P.D. or chest X-ray within 9 months of admission.
- R.N.'s and L.V.N.'s must submit proof of valid California license.

Application forms for the Nursing Major are available in the Nursing Department. The initial filing period for the Fall of 1979 is November 1–30, 1978; it is to your advantage to get your application in early. Licensed Vocational Nurses and Registered Nurses who wish to gain admission to the program must follow the same procedures, and must complete the same prerequisite courses.

COURSES

2012. Nursing Theory I (4)

Selected relevant theories as they relate to the developments of concepts and principles useful in the planning of nursing care through the nursing process. Open only to students in the Nursing Major. Concurrent enrollment in Nurs. 2013. (F)

2013. Nursing Theory I Laboratory (2)

Concurrent enrollment in Nurs. 2012. Must be taken Credit/No Credit. (F)

2100. Nutrition (3)

Composition of food. Nutritive needs and food selection for varying ages, economic and social conditions. Prerequisites: Chem. 1603, Biol. 2062. (Y)

2150. Medical Ethics (4)

(See Phil. 2150 for course description)

2305. Clinical Nursing I (4)

Introduces the nursing process with well individuals in various stages of the life cycle and in a variety of settings. Focuses on concepts of nutrition, communication, aeration, stimulation, activity, and fluids. Open only to students in the Nursing Major. Concurrent enrollment in Nurs. 2306. (W)

2306. Clinical Nursing Practice I (5)

Concurrent enrollment in Nurs. 2305. Open only to students in the Nursing Major. Must be taken Credit/No Credit. (W)

2307. Clinical Nursing II (4)

Focuses on the continued promotion of wellness through implementation of the nursing process. Implications of the professional nurse role as a member of the health team. Open only to students in the Nursing Major. Concurrent enrollment in Nurs. 2308. (Sp)

2308. Clinical Nursing Practice II (5)

Concurrent enrollment in Nurs. 2307. Open only to students in the Nursing Major. Must be taken Credit/No Credit. (Sp)

3110. Pharmacology (3)

Introduction to drugs and therapeutics. Prerequisites: Chem. 1603, Biol. 2062, 4010. (Y)

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3305. Clinical Nursing III (4)

Major emphasis in the implementation of the nursing process with increasing proficiency with well individuals. Open only to students in the Nursing Major. Concurrent enrollment in Nurs. 3206. (F)

3306. Clinical Nursing Practice III (5)

Concurrent enrollment in Nurs. 3205. Open only to students in the Nursing Major. Must be taken Credit/No Credit. (F)

3307. Clinical Nursing IV (4)

Emphasis on modifying and/or supporting adaptive mechanisms of clients with pathological and maladaptive responses. Open only to students in the Nursing Major. Concurrent enrollment in Nursing 3308. (W)

3308. Clinical Nursing Practice IV (5)

Concurrent enrollment in Nurs. 3307. Open only to students in the Nursing Major. Must be taken Credit/No Credit. (W)

3309. Clinical Nursing V (4)

Emphasis is placed on the individual in the family in the acute health care setting and the home. Open only to students in the Nursing Major. Concurrent enrollment in Nurs. 3310. (Sp)

3310. Clinical Nursing Practice V (5)

Concurrent enrollment in Nurs. 3309. Open only to students in the Nursing Major. Must be taken Credit/No Credit. (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. (Sp)

3712-3. Nursing Assessment I and II (4 each)

Theoretical formulations underlying nursing process. Assessment of the health needs of essentially well clients. Open only to California Registered Nurses who have demonstrated current proficiency in technical nursing practice, and have been admitted to the Nursing Major. Nurs. 3712 is prerequisite to 3713. 3712: F; 3713: W

3715. Nursing Assessment Clinical Practice (2-5)

Clinical practice to accompany Nurs. 3712-3 may be repeated up to a total of 5 units. Concurrent enrollment in Nurs. 3712-3. Open only to California Registered Nurses who have been admitted to the Nursing Major.

4207. Clinical Nursing VI (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. Concurrent enrollment in Nurs. 4208. (Su, F)

4208. Clinical Nursing Practice VI (4)

Concurrent enrollment in Nurs. 4205. Open only to students in the Nursing Major. Must be taken Credit/No Credit. (Su, F)

4213. Nursing Theory II (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. (Su, F)

4301. Distributive Seminar (2)

Nursing theory emphasizing the prevention of disease and maintenance of health. Concurrent registration required in Nurs. 4302. Prerequisite: Nurs. 4207. (A)

4302. Distributive Preceptorship (10)

Nursing practice which emphasizes the prevention of disease and maintenance of health. Grade will be credit/no credit. Prerequisite: Nurs. 4207 and concurrent registration in Nurs. 4301. Three hrs. supervised practice per unit. (A)

4303. Episodic Seminar (2)

Nursing theory which emphasizes the curative and restorative aspects of nursing. Concurrent registration required in Nurs. 4304. Prerequisite: Nurs. 4207 (A)

4304. Episodic Preceptorship (10)

Nursing practice which emphasizes the curative and restorative aspects of nursing. Grade will be credit/no credit. Prerequisites: Nurs. 4207 and concurrent registration in Nurs. 4303. Three hrs. supervised practice per unit. (A)

4411. Management of Patient Care (4)

Development of the management and interpersonal skills necessary for team leading and head nursing. Prerequisite: Nurs. 2207. (Y, On Demand)

4412. Introduction to Nursing Research (4)

Reading and interpretation of research studies. Relationship of research to knowledge and practice. Formulation of a research design. Prerequisites: Nurs. 2207; Soc. 2400 or Psyc. 2010; Stat. 1000 or 1100. (Y, On Demand)

4710. History and Trends in Nursing (4)

(See Hist. 4710 for course description.)

4900. Independent Study (1-4)

PHILOSOPHY

(Department of Philosophy; School of Arts, Letters and Social Sciences)

Professors: William Warren Bartley, III, Jean G. Harrell (Chair), Edward M. MacKinnon, Eugene D. Mayers, Anil K. Sarkar, Elizabeth H. Wolgast

Associate Professors: William J. Langan, Steve F. Sapontzis

Assistant Professors: Paul C. Bassen, John L. Hodge, Peter P. Kissin, Joaquín A. Zuñiga

PURPOSES

The Philosophy Department offers a broad range of philosophy courses leading to a B.A. degree. Through the study of philosophy, the student encounters the great ideas of our heritage, both Western and Eastern, and encounters the foundations of almost all other subjects.

Many different kinds of students major in Philosophy. Some students intend to become professional philosophers themselves or to do graduate work in philosophy. There are also those who take philosophy as a preparation for another professional area. Traditionally, philosophy has been one of the chief roads to professional law schools. Another traditional aim of philosophy majors has been to enter theological seminary. Philosophy also offers a good general Liberal Arts education. Many of the traditional university disciplines are founded on philosophical principles: religion, political science, the law, education, aesthetics, physics, and other subjects.

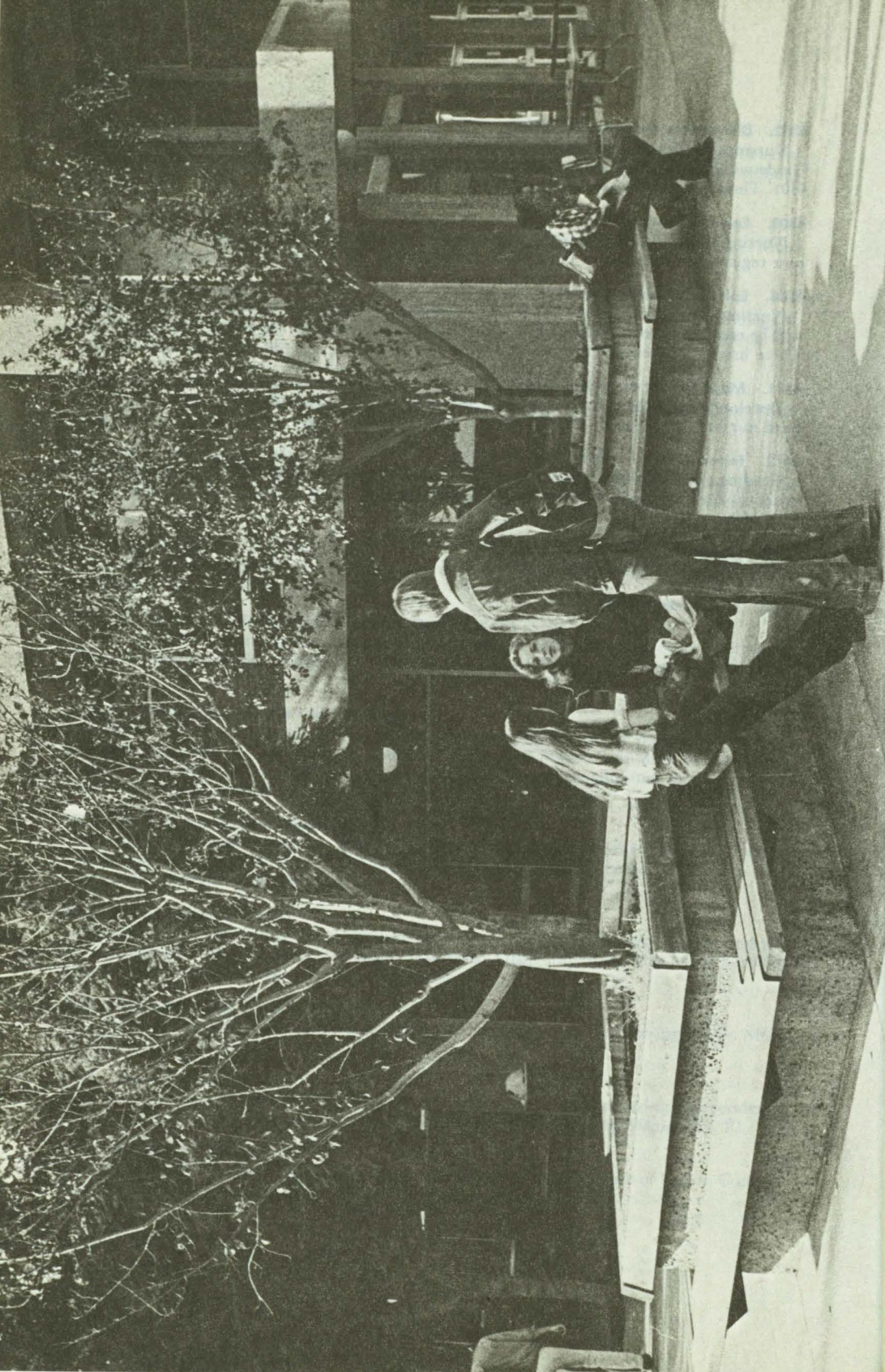
In addition to the general major leading to the B.A. degree in Philosophy, the Department offers a minor in Philosophy, and participates in the Western Heritage Program, the Concentration in Religious Studies, and other interdisciplinary programs.

The Philosophy Major Leading to a B.A. Degree

Requirements

- I. Complete the 76-unit requirement in general education required for B.A. and B.S. degrees. Students who complete this major may apply up to 8 units of Foreign Language courses in satisfaction of the requirement in Basic Subjects (requirement I.A.2).
- II. Courses in Philosophy

A. Phil. 1001. Introduction to Logic (4 units)	48 units
B. Phil. 2100. Ethics (4 units)	4
C. Three courses in the History of Western Philosophy: Phil. 2601, History of Ancient and Medieval Philosophy (4 units); Phil. 2602, History of Modern Philosophy (4 units); and one course selected from—Phil. 3610, Classical Greek Philosophy (4 units); Phil. 3660, Seventeenth Century Rationalists (4 units); Phil. 3670, Eighteenth Century Empiricism (4 units); Phil. 3680, Nineteenth Century Philosophy (4 units).....	12
D. Two courses in Phil. 4911, Senior Seminar in Philosophy (4 units each), or one course in Phil. 4911, Senior Seminar in Philosophy (4 units), and one course in Phil 4912, Senior Project (4 units)	8
E. One from among the following courses: Phil. 4801, Contemporary American Philosophy (4 units); Phil. 4802, Contemporary British Philosophy (4 units); Phil. 4803, Contemporary Continental Philosophy (4 units)	4
F. One from among the following courses: Phil. 1002, Inductive Logic and Scientific Methods (4 units); Phil. 3000, Modern Logic (4 units); Phil. 3011, Philosophy of Science (4 units); Phil. 3301, Epistemology (4 units)	4
G. Any three other philosophy courses, at least two of which must be in the upper division	12
- III. Courses in supporting fields..... 0–24 units
 Demonstrate a reading knowledge of one foreign language. Proficiency may be demonstrated either by two years of college-level work, or its equivalent, or by examination.



Unit summary

Major: courses in Philosophy.....	48	} 48-72 units
courses in supporting fields	0-24	

Philosophy Minor

A minor in philosophy requires 32 units of philosophy courses including the following:

A. One of these courses: Phil. 1001, Phil. 2000, Phil. 2100	4	units
B. Three of these courses: Phil. 2601, Phil. 2602, Phil. 3660, Phil. 3670, Phil. 3680.....	12	
C. Any four additional upper division philosophy courses	16	
Total departmental courses.....	32	

COURSES

- 1001. Introduction to Logic (4)**
A beginning study of the forms of valid inference, stressing recent developments in symbolic logic, and including Aristotelian deductive logic. Does not satisfy the general education requirement in humanities. (A)
- 1002. Inductive Logic and Scientific Methods (4)**
An elementary study of how material truth is related to formal validity. The problems of induction and probable inference. (Y)
- 1011. Workshop in Clear Thinking (4)**
Development of clarity and focus in straight-line thinking, with attention to rigor, modes of explanation, elimination of superfluous ideas, etc. Papers and discussion in class. (F,W,Sp)
- 1301. Images of Man (4)**
Examination of the views of man concerning the purpose or nature of his existence, values, conflicts, problems, and needs, which underlie contemporary writings in philosophy, literature, psychology, religion, and the sciences. (Y)
- 1920-1999. Directed Group Study (1-4)**
- 2000. Introduction to Philosophy (4)**
Representative interpretations of man's place in the universe, studied through selections from the writings of the great philosophers. (A)
- 2100. Ethics (4)**
Major types of ethical theory and their relation to social systems and institutions. (A)
- 2110. Racial Conflict and Ethical Values (4)**
A study of the causes of racial conflict. Relations between racial and international conflict are examined. Cross listed with BI.St. 2110. (F)
- 2150. Medical Ethics (4)**
Study of the ethics of abortion, euthanasia, truthfulness to patient, criterion for death, justification of certain medical social programs, etc. Readings from current philosophical works. Cross-listed with Nursing. (F,W,Sp)
- 2310. Introduction to Existential Philosophy (4)**
Existentialism in its historical origins and as a contemporary philosophical orientation. Treatment of such thinkers as Kierkegaard, Nietzsche, Jaspers, Marcel, Heidegger, Merleau-Ponty, Sartre. (Y)
- 2400. Introduction to the Philosophy of Religion (4)**
Introductory survey of issues in the philosophy of religion. The relation between religious faith and rationality, the nature of religious language, contemporary philosophical critiques of religion. (Y)

- 2411. Religions of the East (4)**
An examination of the main ideas in the religions of India, China, and Japan. (Y)
- 2412. Religions of the West (4)**
An examination of the main ideas in Christianity, Judaism, and Islam. (Y)
- 2500. Issues in Political Philosophy (4)**
An introduction to basic issues in political philosophy; an examination of the classical texts. (Y)
- 2601. History of Ancient and Medieval Philosophy (4)**
An introductory survey of western philosophy from the pre-Socratic period to the end of the Middle Ages. (Y)
- 2602. History of Modern Philosophy (4)**
An introductory survey of western philosophy from Descartes to the beginning of the 19th century. (Y)
- 2801. Intellectual Antecedents of Chicano Thought (4)**
An examination of some leading Chicano and Latin American thinkers as they illumine contemporary intellectual problems in the Chicano community. Cross-listed with Mexican-American Studies 2801. (Y)
- 3000. Modern Logic I (4)**
A second level course in logic stressing symbolic techniques and including a study of the logic of truth functions and propositional functions. Prerequisite: Phil. 1001, or consent of instructor. (Y)
- 3001. Modern Logic II (4)**
A continuation of Phil. 3000, devoted to the meta-theory of first order predicate logic, Godel's Incompleteness Theorem, and Tarski's theorem on the indefinability of truth. Prerequisite: Phil. 3000 or equivalent, or consent of instructor. (Y)
- 3011. Philosophy of Science (4)**
Methods and concepts of science and their philosophical significance. Cross-listed with Hist. 3011. (Y)
- 3012. History of Science (4)**
The relation between logic and science in antiquity; the development of the modern scientific attitude during the Renaissance; the development of biological science; the shift from classical physics to contemporary physics. Cross-listed with Hist. 3012. (Y)
- 3013. Philosophy and Logic of the Social Sciences (4)**
This course will survey philosophical, logical and methodological problems arising in the social and behavioral sciences. Prerequisite: one course in philosophy numbered 2000 or above, or consent of instructor. (Y)
- 3100. Contemporary Ethical Theory (4)**
Advanced problems in ethics including a survey of recent literature in ethical theory. Prerequisite: one course in philosophy other than logic, or consent of instructor. (Y)
- 3201. Aesthetics (4)**
An historical study of western theories of beauty, aesthetic experience, art and artists. (Y)
- 3301. Epistemology (4)**
The methods of knowing and their relations to the questions of metaphysics. Prerequisite: one course in philosophy numbered 2000 or above, or consent of instructor. (Y)
- 3302. Philosophy of Language (4)**
Study of recent movements in philosophy devoted to the analysis and clarification of language. Prerequisite: one course in philosophy other than Phil. 1001 and Phil. 1002, or consent of instructor. (Y)

3401. Problems in the Philosophy of Religion (4)

A critical study of selected topics in the philosophy of religion: religion and ethics, religious knowledge, the rationality of belief, the problem of evil, miracles. (Y)

3402. Contemporary Religious Thinkers (4)

A study of the religious philosophy of representative contemporary thinkers such as Niebuhr, Buber, Tillich, Maritain, Bultmann, Wieman, and Hartshorne. Prerequisite: one course in philosophy other than a course in logic, or consent of instructor. (Y)

3503. Philosophy of Law (4)

Introduction to the main schools of jurisprudence and legal philosophy. Cross-listed with Pol. Sci. 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. (W)

3520. Studies in Contemporary Social Philosophy (4)

An examination of recent philosophical criticism of contemporary society and proposals for change. Prerequisite: Phil. 2110 or Phil. 3510 or equivalent, or consent of instructor. (Sp)

3610. Classical Greek Philosophy (4)

Brief examination of the pre-Socratics followed by detailed study of the Sophists, Socrates, Plato, Aristotle. Post-Aristotelian philosophy may be discussed. Prerequisite: one course in philosophy numbered 2000 or above, or consent of instructor. (Y)

3660. Seventeenth Century Rationalists (4)

A study of the major works of Descartes, Spinoza, and Leibniz, the great rationalist philosophers of the 17th century. Prerequisite: one course in philosophy numbered 2000 or above, or consent of instructor. (Y)

3670. Eighteenth Century Empiricism (4)

The development of modern empiricism and its influences. A study of the major works of Bacon, Locke, Berkeley and Hume. Prerequisite: one course in philosophy numbered 2000 or above, or consent of instructor. (Y)

3680. Nineteenth Century Philosophy (4)

A study of major Continental and British thinkers of the 19th century (e.g., Fichte, Hegel, Schopenhauer, Marx, Nietzsche, Mill, Spencer, Darwin, etc.) Prerequisite: one course in philosophy numbered 2000 or above, or consent of instructor. (Y)

3701, 3702, 3703. History of Eastern Philosophy (4 each)

A survey of the philosophical systems of India and the Far East. Each course may be taken independently, but the full sequence is recommended.

3701. Classical Indian Philosophy

The Upanishads, Bagavadgita, Early Buddhism, Jainism. (F)

3702. The Six Schools of Later Indian Philosophy.

Nyaya-Vaisesika, Sankhya, Vedanta: absolutistic and theistic, philosophy of evolution. (W)

3703. Philosophies of China and Japan.

Confucius, Lao-Tse, Zen Buddhism and modern movements. (Sp)

3710. Comparative Themes in Eastern and Western Philosophy (4)

Critical and comparative study of themes in Western philosophy, Indian philosophy, and Chinese philosophy. Prerequisite: one course in Eastern philosophy, or consent of instructor. (Y)

3801. The Golden Age of American Philosophy (4)

A study of the major works of the greatest American philosophers: Peirce, James, Royce, Santayana, Dewey and Whitehead. Prerequisite: one course in philosophy numbered 2000 or above, or consent of the instructor. (Y)

3901. Metaphysics (4)

A study of selected metaphysical systems and of such problems as substance, causality, space and time, mind and body. Prerequisite: one course in philosophy numbered 2000 or above, or consent of instructor. (Y)

3902. Philosophy of Mind (4)

Study of recent philosophical investigations regarding the nature and function of mind. Prerequisite: one course in philosophy other than Phil. 1001 and Phil. 1002, or consent of the instructor. (Y)

3903. Philosophy of Action (4)

Issues concerning human action as discussed in recent philosophical literature: intention, motive, reasons and causes, purpose, responsibility. (Y)

3910. Introduction to Phenomenology (4)

A survey of the foundations of transcendental and existential phenomenology, with consideration of major themes such as perception, time, intersubjectivity, objectivity, language, history, death. Prerequisite: one course in philosophy numbered 2000 or above, or consent of instructor. (Y)

4013. Philosophy of Psychology (4)

Consideration of representatives of such psychological schools as reductionism and behaviorism together with critical philosophical studies of these views by various modern writers. Prerequisite: one upper division philosophy or psychology course, or consent of instructor. (Y)

4100. Ethics in Business, Law and Government (4)

An examination of ethical issues in practical affairs. Analysis of relevant ethical theories and consideration of practices subject to moral criticism. Particular attention to moral problems in business, domestic and multinational, but attention also to problems in law and government. (Y)

4801. Contemporary American Philosophy (4)

Selected writings of major American philosophers of the 20th century. Prerequisite: one course in philosophy other than Phil. 1001 and 1002, or consent of instructor. (Y)

4802. Contemporary British Philosophy (4)

Selected writings of major British philosophers of the 20th century. Prerequisite: one course in philosophy other than Phil. 1001 and 1002, or consent of instructor. (Y)

4803. Contemporary Continental Philosophy (4)

Selected writings of major European philosophers of the 20th century. Prerequisite: one course in philosophy other than Phil. 1001 and 1002, or consent of instructor. (Y)

4900. Independent Study (1-4)**4911. Senior Seminar in Philosophy (4)**

Intensive study of an important philosopher, school, or problem of philosophy. Prerequisite: two courses in philosophy numbered 2000 or above, or consent of instructor. (Y)

4912. Senior Project (4)

Supervised research and preparation of an essay on a significant philosophical problem. Prerequisite: Phil. 4911. (On demand)

4920-4999. Directed Group Study (1-4)**5000. Philosophy of Education (4)**

Introductory course in philosophy of education. (See TEd. 5000 for course description.)

PHYSICAL EDUCATION

(Department of Kinesiology and Physical Education, School of Education)

Professors: Phyllis J. Brock, Calvin S. Caplan, Herbert M. Graw (Chair), Joel E. Grose, Don R. Hudson, Carl J. Lutt, Margery M. Martin, Alfred R. Mathews, Jr., Richard S. Rivenes, Jonathan L. Stagers, Sr., William G. Vandenburg

Associate Professors: Malachi Andrews, J. Ann Carr, Donald A. Chu, Stanley J. Clark, Dorie Krepton, Thomas R. Meekins, John Z. Ostarello, Jr., Robert Rodrigo, James M. Santos, Arlene H. Smith, Timothy Tierney, F. Douglas Weiss, Adele R. Wenig, Robert W. Zambetti

Lecturers: R. Michael Belloti, Cynthia Berrol, James R. DeLacy, Paulette Denianke, Joann F. Dohallow, Lyn D. Eubanks, Barbara L. Iten, Linda Knapp, Colin M. Lindores, Donald T. Sawyer

Graduate Advisers: Joel E. Grose, Richard S. Rivenes

DEPARTMENTAL PHILOSOPHY AND PURPOSES

The human body, designed for motion, provides enjoyment through engagement in motor performances satisfying to the nature and goals of the individual. *Kinesiology* is the study of individuals engaging in the motor performances of daily life or in those activities yielding aesthetic values or serving as an expression of physical or competitive nature. Studying and learning more about human motion ultimately means learning more about human nature. *Physical Education* is the professional application of the study of human movement. It is instruction that provides the individual with the skills, techniques, and knowledge necessary for successful and enjoyable participation in motor performances.

The purposes of the Department of Kinesiology and Physical Education are twofold:

- 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 human movement. Such study includes an investigation into how motor performance occurs; 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, and social factors which result from and influence play, games, sport, and dance.

The Department's program offers courses appropriate to the general education curriculum of the University and provides the necessary foundation for those students who wish to continue their own personal development, whether in the application of skill acquired in performance classes, or in the application of knowledge acquired in the study of the discipline in such professional fields as teaching, coaching, physical therapy, athletic training, or in graduate study.

The major in Kinesiology and Physical Education includes both an academic as well as a performance base. It is felt that understanding and appreciation are enhanced when the student takes an active role in performance.

HIGH SCHOOL PREPARATION

Students who are planning to major in Kinesiology and Physical Education will find a high school background in algebra, geometry, physics, chemistry, biology, and a variety of activity skills helpful both to the lower division prerequisites to the major and to their upper division course work within the major.

SPECIAL ACTIVITIES AND FACILITIES

The Department of Kinesiology and Physical Education sponsors active programs of intercollegiate athletics for both men and women. Several performances in dance are also sponsored, with the major activity being the Spring Concert. The University's program of intramural sports, sponsored by the Associated Students, is administered within the Department. Many of the physical education facilities are open to the campus community when not being used for classes. These include the swimming pools, tennis courts, handball courts, gymnasium, and track.



CAREER OPPORTUNITIES

There is an approved waiver program in Kinesiology and Physical Education under the Ryan Act. Certification is for grades K through 12. Career options include teaching physical education and dance in public schools and community colleges, coaching and/or training in schools, colleges, and recreation programs, and recreational leadership positions in public agencies or private industry.

DEPARTMENTAL RESEARCH OPPORTUNITIES

The Department maintains a laboratory for kinesiological research. This facility houses a wide variety of sophisticated research apparatus. Both graduate and undergraduate students use this facility for investigation into all aspects of human motion study.

Undergraduate Program

The Department of Kinesiology and Physical Education offers courses leading to the bachelor of science degree with a major in physical education. The purpose of this major is the study of the human as an individual engaging in the motor performance of his or her daily life and in other motor performances yielding aesthetic values or serving as an expression of their physical and competitive nature. This major is *basic* to the professional field of physical education, to other related professions, and to advanced study at the graduate level. Two opportunities exist within the major: the Physical Education Option and the Dance Option.

The Department offers a certificate in coaching designed for persons with majors in other fields who are in-service teachers or who plan to enter the teaching profession. The curriculum for the certificate includes a general core of courses applicable to many sports and "branches" involving study in a particular sport.

In addition, the Department offers a wide selection of sport, dance and exercise activity courses open to all interested students and sponsors programs in intramural and intercollegiate athletics and dance performance.

The Physical Education Major leading to a B.S. Degree

General Requirements

- I. Complete requirements for general education.
- II. Complete the following requirements and prerequisites in the major:
Lower division—Satisfy the departmental skill proficiency requirements, and complete the courses in one of the three options.

	Units	Options	
		Physical Education	Dance
Biol. 1000. Principles of Biology	5	X	X
Biol. 2061. Anatomy and Physiology	4	X	X
Biol. 2062. Anatomy and Physiology	4	X	X
Soc. 2000. Introduction to Sociology	4	X	X
Stat. 1000. Elements of Probability and Statistics	5	X	
or	or	or	
Stat. 1100. Elements of Descriptive and Inferential Statistics	4	X	
Psych. 2000. General Psychology I: Overview	5	X	X
P.E. 2200. Rhythmic Analysis	2		X
P.E. 2250. Modern Dance Performance Theatre	1		X
or	or		
P.E. 2255. Ethnic Dance Performance Theatre	1		X
		26-27	25

Complete a total of 44 units in the following areas:

Course	Units	Physical Education	Dance
Core courses			
P.E. 3305. Structural Kinesiology	5	X	X
P.E. 3310. Biomechanics	5	X	X
Elective courses—Courses required in one option may serve as an elective in other option. (An X indicates course is required in the option.)			
P.E. 3200. Survey of Ethnic Dance	4		X
P.E. 3201. Ethnic Dance Studies	3		
P.E. 3210. Movement Awareness	3		
P.E. 3230. History of Dance	4	X*	X
P.E. 3235. Creative Dance for Children	4		
P.E. 3240. Dance in Contemporary Society	4		X
P.E. 3241. Theory of Modern Dance	3		
P.E. 3242. Dance Composition I: Solo and Small Group Forms	4		X
P.E. 3243. Dance Composition II: Extended Forms	4		
P.E. 3244. Dance Production	4		
P.E. 3300. Kinesiological Measurement	4	X	
P.E. 3320. Physiological Mechanisms	5	X	
P.E. 3330. Sensorimotor Skill	5	X	
P.E. 3700. Athletics of the Ancient World	4	X*	
P.E. 3710. Rise of Modern Sport	4	X*	
P.E. 3720. Development of American Professional Physical Education	4		
P.E. 3730. Racism in Sport	4		
P.E. 4230. Styles and Techniques of Modern Dance	4		
P.E. 4340. Motor Development	4		
P.E. 4390. Seminar in Kinesiology	4		
P.E. 4610. Exercise Prescription	4		
P.E. 4620. Care and Prevention of Athletic Injuries	5		
P.E. 4710. Psycho-Social Factors in Competitive Athletics	4		
P.E. 4720. Sport in Contemporary Society	4	X	

Skill Proficiency Requirements

The skill proficiency requirement for a major in physical education involves satisfactory completion of a minimum number and variety of courses at different skill levels, as shown below. Students in the physical education option are expected to complete at least one course in each of five areas: individual sport, team sport, aquatics, dance and combatives.

Level of Course	Option	
	PE	Dance
Advanced.....	3	2
Intermediate.....	3	2
Beginning.....	3	2

Single Subject Waiver Program: Physical Education

The State Commission for Teacher Preparation and Licensing has approved the following program as a waiver of the state examination in the Single Subject Physical Education.

Lower Division	25-39 units
(same as above for majors; includes skill proficiency)	
Upper Division	64-82 units
1. Complete requirements for Physical Education or Dance Option	44
2. P.E. 4030. Professional Field Experience I.....	2-4

* Physical Education option requires one course from the following: P.E. 3230, P.E. 3700, or P.E. 3710.

3. Any two of
 P.E. 5210. Elementary School Physical Education, or
 P.E. 5440. Adapted Physical Education, or
 P.E. 3235. Creative Dance for Children 7-9
4. P.E. 3000-09. Theory of Sport..... 6

The Dance Minor

Prerequisite to upper division course work is a background of technique and performance in Modern and/or Folk-Ethnic Dance.

Requirements

- | | | |
|---|--|--------------|
| 1. <i>General</i> | | <i>Units</i> |
| P.E. 2200. Rhythmic Analysis..... | | 2 |
| P.E. 3230. History of Dance | | 4 |
| P.E. 5310. Applied Biomechanics..... | | 4 |
| 2. Either a. or b. | | |
| a. <i>Modern Dance</i> | | |
| P.E. 3242. Dance Composition I: Solo and Small Group Forms | | 4 |
| P.E. 3244. Dance Production | | 4 |
| b. <i>Folk-Ethnic Forms</i> | | |
| P.E. 3200. Survey of Ethnic Dance | | 4 |
| P.E. 3201. Ethnic Dance Studies | | 3 |
| 3. Plus electives from the following to total at least 30 units: | | |
| P.E. 3201. Ethnic Dance Studies | | 3 |
| P.E. 3210. Movement Awareness | | 3 |
| P.E. 3235. Creative Dance for Children | | 4 |
| P.E. 3240. Dance in Contemporary Society..... | | 4 |
| P.E. 3241. Theory of Modern Dance | | 3 |
| P.E. 3242. Dance Composition I:
Solo and Small Group Forms | | 4 |
| P.E. 3243. Dance Composition II:
Extended Form Studies | | 4 |
| P.E. 3244. Dance Production | | 4 |

COACHING CERTIFICATE

A minimum G.P.A. of 2.00 is required in the following courses:

- | | |
|--|-------------|
| 1) P.E. 2600, 4650, 5310..... | 11 units |
| 2) Theory of a particular sport
One course from the P.E. 3000-09 series..... | 2 units |
| 3) Advanced Activity in the same sport
One course from the P.E. 2500-53 series..... | 2 units |
| 4) P.E. 5000, Sports Officiating
Must cover same sport as 2) and 3) above | 3 units |
| 5) P.E. 4031, Professional Field Experience..... | 1-4 units |
| Total Units..... | 19-22 units |

The Master of Science Degree in Physical Education

GENERAL INFORMATION

The Department offers courses leading to a Master of Science Degree in Physical Education. The fundamental purpose of this program is to explore in depth the parameters of men and women engaging in sport, dance or other activities which serve as an expression of their physical, aesthetic and competitive nature. The degree has a number of optional emphases, including biomechanics, physiology of exercise, sensorimotor learning, sociology of sport, history of sport, dance and professional physical education.

REQUIREMENTS FOR THE MASTER OF SCIENCE DEGREE IN PHYSICAL EDUCATION

Curriculum

The Master of Science Degree curriculum is flexible and may be tailored to meet the needs and interests of individual graduate students. The degree will be awarded when the following general requirements have been fulfilled:

1. Completion of a minimum of 45 quarter units of approved upper division (post-baccalaureate) and graduate courses. A 3.00 grade average must be maintained in all graduate work. A maximum of 13 quarter units of acceptable graduate credits may be transferred from other institutions.
2. Examination Option
 - a. Completion of P.E. 6550 or 6201.
 - b. Successful completion of an examination in two program areas or:
 - c. One program area and an oral presentation.
3. Thesis Option
 - a. Completion of P.E. 6201.
 - b. Satisfactory performance in a Preliminary Oral Examination and in a Final Oral Examination related to the student's Thesis and program of study before the Department graduate faculty.
 - c. Completion of an approved Thesis.
4. Course Work

	<i>Units</i>
Required of All Students	
P.E. 6200. Foundations of Graduate Research	3
P.E. 6850/6900. Supervised Research/Independent Study	minimum 4
Graduate Electives Block (4 courses)	
P.E. 6400. Seminar in Biomechanics	4
P.E. 6410. Seminar in Sensorimotor Skill	4
P.E. 6420. Seminar in Exercise Physiology	4
P.E. 6430. Seminar in Historical Aspects of Physical Education and Sport and Dance	4
P.E. 6440. Seminar in Sport and Dance in Contemporary Society	4
P.E. 6450. Seminar in Motor Development	4
P.E. 6460. Seminar in Philosophic Perspectives in Kinesiology	4
P.E. 6600. Seminar in Comparative Physical Education	4
P.E. 6610. Seminar in Physical Education Curriculum	4
P.E. 6620. Seminar in Administration and Supervision of Physical Education and Athletics	4
P.E. 6650. Seminar in Sports Medicine	4
P.E. 6700. Seminar in Dance	4
Total	45

Optional Electives (20 units maximum)

Any appropriate course scheduled in consultation with adviser in related Biosocial Sciences, School Administration and Supervision, Teacher Education, Recreation, Public Administration, and/or in Physical Education.

Admission to the Program

Conditionally Classified

Students upon admission to the Program who do not meet all admission requirements receive conditional classified graduate standing. Such students may need to complete certain undergraduate prerequisites in Physical Education preparatory for graduate study and/or may have other deficiencies that must be removed within a reasonable period of time.

Generally, courses taken to remove deficiencies will not count for credit in the M.S. program. In no case will more than 20 quarter units taken in unclassified standing be counted toward the M.S. degree.

Classified

Classified standing means that a student has met all admissions requirements for a graduate program. To achieve classified status as a student in the Master of Science degree program in Physical Education, evidence of the completion of the following requirements must be submitted to the Graduate Coordinator, Department of Kinesiology and Physical Education.

1. The requirements outlined for classified graduate standing in the current catalog.
2. Competence in the Graduate Record Examination, Aptitude Test.
3. A bachelor's degree or equivalent with a major in physical education or an appropriate minor, with a minimum upper division grade point average of 2.75 and an average of 3.0 in the major and related biosocial sciences.

Advancement to Candidacy

Thesis Option

Classified graduate students who have demonstrated their ability to satisfactorily complete graduate level study may be advanced to candidacy for the Master of Science Degree. To become a degree candidate, the student should have completed not less than 12 quarter units of acceptable graduate level course work with a 3.0 grade average. Foundations of Graduate Research (P.E. 6200) and Research Design in Kinesiology (P.E. 6201) should be among these initial units. In addition, the following steps should be completed before any graduate studies beyond 20 units are accepted:

1. A Thesis Committee is selected by the student. A minimum of three members are included, two of whom are among the Graduate Faculty of the Department. The third committee member is a faculty member from outside the Department. The Thesis Committee will work very closely with the student in the development of an acceptable thesis and should be comprised of specialists in the area of the student's research interests.
2. The student completes a thesis proposal, approved by the Thesis Committee, and successfully defends the proposal in a Preliminary Oral Examination before the Department graduate faculty.

Examination Option

Classified graduate students who have demonstrated their ability to satisfactorily complete graduate level study may be advanced to candidacy for the Master of Science Degree. To become a degree candidate, the student should have completed not less than 12 quarter units of acceptable graduate level course work with a 3.0 grade average. Foundations of Graduate Research (P.E. 6200) and Research Design in Kinesiology (P.E. 6201) or Research Application in Physical Education (P.E. 6550) should be among these initial units.

The graduate coordinator, in consultation with the student, will assign two graduate faculty to prepare, administer and evaluate the student's performance on the departmental examination. These faculty will constitute the student's Examination Committee and will be comprised of specialists in the program or presentation areas selected by the student.

The student must pass the department examination in two areas; or pass the department examination in one area and performance acceptably in a presentation to the graduate faculty in another program area. These examinations and/or presentation will be administered during the last quarter of graduate study.

UNDERGRADUATE COURSES

LOWER DIVISION COURSES

1000-1031. * Beginning Activities (1 each)

Two hrs. activity.

- | | |
|---------------------|---------------------------|
| 00. Badminton | 18. Self Defense-Women |
| 01. Basketball | 19. African-Haitian Dance |
| 02. Bowling | 20. Archery |
| 03. Folk Dance | 21. Golf |
| 04. Modern Dance | 22. Gymnastics |
| 05. Rugby | 23. Tap Dance |
| 06. Softball | 24. Tennis |
| 07. Swimming | 25. Water Polo |
| 08. Ballroom Dance | 26. Fencing |
| 09. Volleyball | 27. Jazz Dance |
| 10. Weight Training | 28. Jogging |
| 11. Wrestling | 29. Ballet |
| 12. Field Hockey | 30. Square Dance |
| 13. Judo | 31. Rifle Markmanship |
| 16. Karate | 32. Belly Dance |
| 17. Soccer | 33. T'ai Chi |

1100. Health and Physical Activity (3)

Analysis and application of the basic concepts of health with particular emphasis on physical fitness. Two hrs. lect., 2 hrs. act. (W)

1110. Concepts of Health (3)

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. (A)

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. (F,W,Sp)

1920-1999. Directed Group Study (1-4)

2000-2027. * Intermediate Activities (1 each)

Two hrs. act.

- | | |
|------------------|---------------------------|
| 00. Badminton | 17. Soccer |
| 01. Basketball | 19. African-Haitian Dance |
| 03. Folk Dance | 20. Archery |
| 04. Modern Dance | 21. Golf |
| 06. Softball | 22. Gymnastics |
| 07. Swimming | 23. Tap Dance |
| 08. Social Dance | 24. Tennis |
| 09. Volleyball | 25. Water Polo |
| 13. Judo | 26. Fencing |
| 16. Karate | 27. Jazz Dance |

* Each course may be repeated only once.

2050-2079. Intercollegiate Sports (1 each)

May be repeated according to season.

- | | |
|--------------------------------------|------------------------------------|
| 50. Football (F) | 69. Soccer (F) |
| 51. Basketball (F,W) | 72. Water Polo (F) |
| 52. Track and Field Athletics (W,Sp) | 73. Wrestling (F,W) |
| 53. Baseball (W,Sp) | 74. Softball (women) (W,Sp) |
| 62. Basketball (women) (F,W) | 75. Swimming (W) |
| 64. Cross Country (F) | 76. Judo (W,Sp) |
| 66. Badminton (co-ed) (W,Sp) | 77. Swimming (women) (F,W) |
| 67. Tennis (W,Sp) | 78. Gymnastics (women) (F,W,Sp) |
| 68. Volleyball (women) (F) | 79. Tennis (women) (W,Sp) |
| | 82. Track and Field (women) (W,Sp) |

2110. Skin and Scuba Diving (2)

Introductory course. Prerequisite: satisfactory completion of swimming test. 1 hr. lect., 2 hrs. act. (F,Sp)

2112. Snorkeling (2)

Introduction to snorkeling skills. The use of fins, snorkel and flotation devices. Instruction and experience in safe breath-hold diving practices. Topics include water conditions, waves and beaches, equipment evaluation, underwater physiology, and first aid. Four hrs. act. (F,W,Sp)

2113. Snorkeling Fieldtrip (1)

Optional weekend fieldtrip for students enrolled in snorkeling class. Concurrent enrollment in P.E. 2112 required. (W,Sp)

2151. Sailing (2)

Introductory course theory of sailing, techniques of small boat handling. One hr. lect., 2 hrs. act. (F,Sp)

2152. Intermediate Sailing (2)

Instruction in intermediate sailing theory and practice. Sloop rig sailing skills, spinnaker handling, and racing technique emphasized. Prerequisite: P.E. 2151 or equivalent. One hr. lect., 2 hrs. act. (W)

2180. Life Saving (2)

Basic water safety, rescue methods, and life saving techniques. Red Cross certificate awarded if a grade of C or better is earned. Prerequisite: P.E. 2507 or equivalent and satisfactory completion of entry level swimming test. One hr. lect., 2 hrs. act. (formerly P.E. 2014) (F,S)

2181. Water Safety Instructor Training (2)

Prepares students to instruct at all levels of Red Cross swimming and life saving courses. Red Cross certificate awarded if a grade of C or better is earned. Prerequisite: P.E. 2180 or equivalent. (formerly P.E. 2100)

2200. Rhythmic Analysis (2)

Rhythmic analysis of movement and musical forms accompanying dance; moving rhythmic patterns and metric combinations. Prerequisites: P.E. 1004 or equivalent. One hr. lect., 2 hrs. act. (formerly P.E. 2102) (F)

2250. Modern Dance Performance Theater (1)

Admission by consent of instructor. Continuing enrollment expected throughout academic year. Grade of SP to be assigned for satisfactory progress until last quarter of enrollment within an academic year. Four hrs. act. minimum. (formerly P.E. 2080) (F,W,Sp)

2255. Ethnic Dance Performance Theater (1)

Performance of ethnic dance forms in theater situation. Admission by consent of instructor. Continuing enrollment expected throughout academic year. Grade of SP to be assigned for satisfactory progress until last quarter of enrollment within an academic year. Four hrs. act. minimum. (Formerly P.E. 2081) (W,Sp)

2500-53. Advanced Activities (2 each)

Instruction at advanced level for persons with intermediate or equivalent level skill. Four hrs. act.

- | | |
|--|--|
| 00. Badminton (formerly P.E. 2031) (Sp) | 17. Soccer (formerly P.E. 2037) (F,W) |
| 01. Basketball (formerly P.E. 2030) (F,Sp) | 19. Afro-Haitian Dance (Sp) |
| 03. Folk Dance (formerly P.E. 2041) (Sp) | 21. Golf (formerly P.E. 2035) (F) |
| 04. Modern Dance (formerly P.E. 2040) (W) | 22. Gymnastics (formerly P.E. 2036) (W) |
| 06. Softball (formerly P.E. 2045) (Sp) | 24. Tennis (formerly P.E. 2039) (F,W,Sp) |
| 07. Aquatics (formerly P.E. 2032) (Sp) | 50. Football (formerly P.E. 2043) (W,Sp) |
| 09. Volleyball (formerly P.E. 2009) (F,Sp) | 52. Track and Field (formerly P.E. 2042) (F) |
| 16. Karate (formerly P.E. 2046) (F,W,Sp) | 53. Baseball (formerly P.E. 2047) (F) |

2600. Introduction to Training Methods for Athletics and Dance (4)

Beginning course in prevention and care of injuries occurring in athletics and dance. Integral part of departmental programs in preparation for athletic training and for coaching certification. (F)

2924. Tennis Tactics (2)

Strategy and tactics of tennis for players with advanced skills. Analysis of position play and stroke utilization. Drills and practice in competitive situations. Prerequisite: advanced tennis or equivalent. (F,Sp)

UPPER DIVISION COURSES**3000-09. Theory of Sport (2 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. One hr. lect., 2 hrs. act.

- | | |
|---------------------|-------------------------|
| 00. Football (W) | 05. Softball (F) |
| 01. Field Hockey | 06. Track and Field (F) |
| 02. Basketball (Sp) | 07. Gymnastics (Sp) |
| 04. Baseball (F) | 09. Aquatics (Sp) |

3200. Survey of Ethnic Dance (4)

Survey of international dances as a function of man, in relation to his philosophy, religion, geography and history, social system and culture. Three hrs. lect.

3201. Ethnic Dance Studies (3)

Study and practice of theory and performance of dance forms of specific ethnic groups or nations. May be taken up to three times for credit with different content. Two hrs. lect., 2 hrs. act.

3210. Movement Awareness (3)

An individual and group exploration of movement as a medium of expression and communication. An investigation of how space, time, environment, people affect each individual as manifested in movement behavior. A study of meanings inherent in movement. Two hrs. lect., 2 hrs. act. (formerly P.E. 2101)

3230. History of Dance (4)

The historical development of dance and its role in culture from ancient through contemporary times. (W)

3235. Creative Dance for Children (4)

Theory and techniques for developing the creative capacities of the child through dance participation and leadership in creative dance provided by means of a special class with children. Prerequisite: Modern Dance (P.E. 1004). Two hrs. lect., 2 hrs. act. (F)

3240. Dance in Contemporary Society (4)

Forms and functions of dance in contemporary society, as art, therapy, entertainment, education as reflection of state of culture. Four hrs. lect.

3241. Theory of Modern Dance (3)

Analysis and practice of skills, creative processes, and knowledge involved in modern dance. Technique, composition and production. Prerequisite: activity course in modern educational dance. Two hrs. lect., 2 hrs. act. (W)

3242. Dance Composition I: Solo and Small Group Forms (4)

Choreography and composition problems in modern dance. Discussion and practice of movement materials, improvisational processes, traditional and modern forms. Prerequisite: P.E. 1004. Two hrs. lect., 4 hrs. act. (F)

3243. Dance Composition II: Extended Forms (4)

Composition and aesthetic problems of space and rhythmic designs for group performance. Prerequisite: P.E. 3242. Two hrs. lect., 4 hrs. act. (W)

3244. Dance Production (4)

Production aspects of dance performance. Designing and executing sound, lighting, staging, costume and make-up for dance. Prerequisites: dance experience and consent of instructor. Two hrs. lect., 4 hrs. act. (Sp)

3300. Kinesiological Measurement (4)

Theoretical basis of measurement in kinesiology. Role of statistical analysis in kinesiological research. The limitations of measurement. Prerequisite: Stat. 1000 or 1100. Three hrs. lect., 2 hrs. act. (F,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. Recommended preparation: Human anatomy or Biol. 2061. Four hrs. lect./disc., 3 hrs. lab. (F,W)

3310. Biomechanics (5)

Bio-mechanics of human movement and the mechanical and muscular analysis of movement patterns. Prerequisites: P.E. 3305. Four hrs. lect., 3 hrs. lab. (W,Sp)

3320. Physiological Mechanisms in Human Performance (5)

The physiological parameters and mechanisms that determine adaptations of the physiological systems of man in response to exercise. Prerequisites: Biol. 2062, P.E. 3300, 3310. Four hrs. lect., 3 hrs. lab. (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: P.E. 3300, 3310. Four hrs. lect., 3 hrs. lab. (F,Sp)

3700. Athletics of the Ancient World (4)

The form and role of athletics and related agonistic practices in Ancient and Medieval Societies. Prerequisite: junior standing. Hist. 1011 recommended. Four hrs. lect./disc. (F,W)

3710. Rise of Modern Sport (4)

The social history of sport as it evolved from renaissance society into an organized modern phenomenon. Prerequisite: junior standing. (Hist. 1013 and/or Hist. 1102 recommended.) Four hrs. lect./disc. (Sp)

3720. Development of American Professional Physical Education (4)

Historical development of thought and practice in athletics and physical education in American Education. Prerequisite: junior standing. Four hrs. lect./disc. (F,Sp)

3730. Racism in Sports (4)

Dynamics of institutional racism in sports. Psychoblackology, soul action vs. western perceptibility. Soma-psycho-social-econo factors, myths, hang-ups, emphasis, the black side. (F,W)

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. May be taken up to three times for credit. (A)

4230. Styles and Techniques of Modern Dance (4)

The study and practice of established styles, techniques and underlying theories of various schools of Modern Dance. May be taken twice for credit with different content. Prerequisite: P.E. 2004 or equivalent. Two hrs. lect., 4 hrs. act. (Sp)

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. Prerequisites: P.E. 3320 and 3330. Four hrs. lect./disc. (W)

4390. Seminar in Kinesiology (4)

Seminar on special topics selected from current kinesiological research literature. May be taken twice for credit with different content. Prerequisites: P.E. 3320 and 3330. (Sp)

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. act. (W)

4620. Care and Prevention of Athletic Injuries (5)

Application of kinesiology to the analysis, care, and prevention of athletic injuries, including protective strapping, physical reconditioning and sport medicine. Prerequisites: P.E. 3310 and 3320. Four hrs. lect., 3 hrs. lab. (Sp)

4650. First Aid and Safety (3)

Principles and procedures of standard first aid to maintain life in emergency situations. Meets qualifications for Red Cross and cardio-pulmonary resuscitation certification. Two hrs. lect., 2 hrs. act. (F,Sp)

4710. Psycho-Social Factors in Competitive Athletics (4)

Analysis and application of psychological and sociological data related to participation of coach and athlete in competitive sports programs. Special emphasis on nature of competition, coach-athletic interaction, problem athlete and coach. Prerequisite: P.E. 3330. Three hrs. lect. (Sp)

4720. Sport in Contemporary Society (4)

The incidence, form, and regulation of sport and physical activity in contemporary societies. Prerequisites: Soc. 2000. Four hrs. lect./disc. (F,W)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)****POST-BACCALAUREATE COURSES****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. (F,W)

5210. Elementary School Physical Education (3)

The elementary school physical education program. Games, sports, fundamental rhythms and dances, and other activities commonly taught on the elementary level. Prerequisite: teaching experience or consent of instructor. (W)

5310. Applied Biomechanics (4)

Practical application of biomechanical principles. Diagnostic techniques for the evaluation of athletic performance. Course geared to needs and interests of individual students. (W)

5440. Adapted Physical Education (5)

A study of the theory and practice of adapted physical education as applied to the exceptional person. Special emphasis on contribution of kinesiology to physical education for the handicapped. Prerequisite: P.E. 3310. Four hrs. lect., 3 hrs. lab. (Sp)

5900. Independent Study (1-4)**5920-5999. Directed Group Study (1-4)****GRADUATE COURSES****6200. Foundations of Graduate Research (3)**

Analysis of the nature of kinesiological variables, scientific thought and inquiry, and historical, descriptive and analytical approaches to problem-solving. Prerequisite: P.E. 3300 or equivalent. (Su,W)

6201. Research Design in Kinesiology (3)

Application of scientific methods to specific problems in kinesiology. Individual projects in research design, data analysis, and presentation are developed. Prerequisite: P.E. 3300 or equivalent. (F)

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. (Sp)

6410. Seminar in Sensorimotor Skill (4)

Advanced study of the nature of sensorimotor skill, with an emphasis upon learning and performance variables. Seminar may be repeated once for credit with consent of instructor. Prerequisite: P.E. 3330 or equivalent. (W)

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. (Sp)

6430. Seminar in Historical Aspects of Physical Education and Sport and Dance (4)

Critical analysis of the literature pertaining to the interrelationships of sport, dance, physical education and culture within the historical perspective of society. Seminar may be repeated once for credit with consent of instructor. Prerequisite: Graduate status, P.E. 3700 or P.E. 3710. (F)

6440. Seminar in Sport and Dance in Contemporary Society (4)

Discussion and analysis of literature, research and issues pertaining to the role of play, games, sport and dance in contemporary society. May be repeated once for credit with consent of instructor. Prerequisite: P.E. 4720 or P.E. 4790. (Sp)

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. (Sp)

6460. Seminar in Philosophic Perspectives in Kinesiology (4)

Analysis of philosophic issues in competitive and aesthetic movement forms. May be repeated once for credit with consent of instructor. (F)

6550. Research Application in Physical Education (3)

The application of theoretical kinesiological principles to practical teaching situations. Appropriate practice in construction and administration of evaluative techniques in skill parameters. Prerequisite: P.E. 3300 or equivalent. (W)

6600. Seminar in Comparative Physical Education (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 Curriculum (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 Administration and Supervision of Physical Education and Athletics (4)

Background and trends in administration and supervision of physical education and athletics. Includes secondary school and college programs for men and women. (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. (W)

6700. Seminar in Dance (4)

Analysis of technique and choreography in terms of form and content. Discussion of design of production elements for choreography, relationship of dance as creative and performing art. May be repeated once for credit with consent of instructor. (W)

6850. Supervised Research (2-4)

Independent research under direction of faculty. May be repeated for credit with consent of adviser. Prerequisite: P.E. 6200. (A)

6900. Independent Study (1-4)

Independent study under direction of faculty. May be repeated for credit with consent of adviser.

6910. Master's Thesis (1-6)

Thesis under supervision of faculty. Students may enroll in 1 to 6 units. Six units maximum may be applied toward degree. Prerequisite: Classified graduate standing and P.E. 6200-6201.

6920-6999. Directed Group Study (1-4)

PHYSICAL SCIENCE

(Physical Science Committee, School of Science)

Professors: Leon H. Fisher (Chair), Robert H. Good, Richard S. Monson, Robert C. Whitney

The Physical Science Major Leading to a B.S. Degree

The Physical Science major is designed to give the student breadth in the physical sciences while providing considerable strength in one of the specialized science fields of chemistry, earth sciences, or physics. The lower-division program in the physical science major is virtually the same as that taken in the first two years of college by a chemistry major, physics major, or earth sciences major, thus enabling students to transfer among these majors if they so choose. While the pattern of upper-division science courses allows some flexibility in approved physical science electives, it also provides a solid foundation in one of the formal disciplines of physical science. Students intending to continue into graduate school should choose the chemistry, earth sciences or physics major programs. The intent of the physical science major, on the other hand, is to provide an excellent understanding of the physical sciences in broad perspective.

A major in physical science can serve as preparation for further study in technical fields. To enter graduate programs in chemistry, earth sciences, physics, biochemistry, biophysics, geochemistry or geophysics would require about a year of supplementary course work. The major in physical science serves as an excellent background for professional training in law, business, medicine, or education. Students planning to teach at the secondary school level will find that strength in a single subject combined with breadth in other science fields offers a highly desirable combination.

For further information on the Physical Science major, consult the School of Science office.

REQUIREMENTS

- I. Complete the 76-unit requirement in general education, which applies to all majors. Students completing the Physical Science Major will have satisfied 23 units of lower division G.E. requirements (Basic Subjects, 8 units; Natural Sciences area, 15 units; Humanities area, 4 units).

Net units to be completed in general education..... 49-53

- II. Complete the following requirements in the major:

Core

Math. 1300. Elementary Functions and Coordinate Geometry	4
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
Phys. 1001. General Physics (5)	} 12-19
Phys. 1002. General Physics (5)	
Phys. 1003. General Physics (5)	
Math. 2304. Calculus III (4)	
or	
Phys. 2701. Introductory Physics (4)	} 12-19
Phys. 2702. Introductory Physics (4)	
Phys. 2703. Introductory Physics (4)	
E.Sc. 2101. Physical Geology	5
E.Sc. 2201. Evolution of the Earth	4
Phil. 3012. History of Science.....	4
Total in Core	52-59

Electives

Eleven courses, of which at least three must be taken from each Department from the following list:

Chemistry

Chem. 2200. Quantitative Analysis	5
Chem. 2301. Survey of Organic Chemistry	4
Chem. 2302. Survey of Organic Chemistry	4
Chem. 3301. Organic Chemistry	5
Chem. 3302. Organic Chemistry	5
Chem. 3303. Organic Chemistry	5
Chem. 3110. Intermediate Inorganic Chemistry.....	3
Chem. 3400. Introductory Biochemistry	4
Chem. 4500. Introductory Physical Chemistry	5
Chem. 4511. Physical Chemistry Lecture	3
Chem. 4512. Physical Chemistry Lecture	3
Chem. 4513. Physical Chemistry Lecture	3
(Math. 2304 required for Chem. 4511)	

Earth Sciences

E.Sc. 1400. Introduction to Meteorology	4
E.Sc. 3610. Crystallography and Mineralogy	5
E.Sc. 3701. Igneous Petrology.....	4
E.Sc. 3702. Metamorphic Petrology.....	3
E.Sc. 3703. Sedimentary Petrology	4
E.Sc. 3730. Principles of Stratigraphy	3
E.Sc. 3810. Structural Geology.....	5
E.Sc. 4010. Introduction to Geophysics	5
E.Sc. 4110. Introduction to Geochemistry.....	5
E.Sc. 4120. Geology of Ore Deposits	5
E.Sc. 4630. X-Ray Crystallography	4

Physics

Phys. 3000. Contemporary Physics	4
(required)	
Phys. 3150. Statistical Mechanics	4
Phys. 3200. Quantum Mechanics I	4
Phys. 3600. Nuclear Physics	4
Phys. 3650. Energy and Environment	4
Phys. 3800. Astrophysics	4
Phys. 3881, 4881. Intermediate and Advanced Laboratory (3 units to be counted as one course).....	3

In addition to the above eleven electives, Physical Science majors are encouraged to select one or more courses from the following list:

(These courses may be applied to G.E.)

Biol. 1000. Principles of Biology	5
Biol. 1101. Foundations of Biological Science.....	5
Biol. 1102. Foundations of Biological Science.....	5
Biol. 1103. Foundations of Biological Science.....	5
Math. 2101. Elements of Linear Algebra	4
Math. 2304. Calculus III.....	4
Phys. 1800. Descriptive Astronomy.....	5
Stat. 3502. Statistical Inference I	4
Stat. 4410. Introduction to Stochastic Processes.....	4
Total Units in Core.....	52-59
Total Units in Electives	40-52
Total Units in Major.....	92-111
General Education	49-53
Free Electives	21-45
Total Units for Graduation.....	186

Single Subject Waiver Program: Physical Science

Completion of the Physical Science Major Program and the additional courses listed below has been approved by the Commission for Teacher Preparation and Licensing as a waiver from the state administered examination in the area of Physical Science.

Biol. 1101. Foundations of Biological Sciences (5) (Molecular and Cellular Biology)
E.Sc. 1400. Introduction to Meteorology (4) (if not taken as Earth Sciences elective)
Phil. 3011. Philosophy of Science (4)
Phys. 1800. Descriptive Astronomy (4)

COURSES

1340. Principles of Physical Science (5)

Fundamental principles of physics and chemistry with applications to astronomy, meteorology and geology. Not open to students having credit for lower-division courses in chemistry or physics. Prerequisite: high school algebra. Four hrs. lect., 3 hrs. lab. and problem session. (A)

1920-1999. Directed Group Study (1-4)**4900. Independent Study (1-4)****4920-4999. Directed Group Study (1-4)****5900. Independent Study (1-4)****5920-5999. Directed Group Study (1-4)**

PHYSICS

(Department of Physics, School of Science)

Professors: Ann C. Birge, Leon H. Fisher, John C. Giles, Robert H. Good (Chair), Charlie Harper, Marian Whitehead

Associate Professor: Daryl W. Preston

Graduate Adviser: Charlie Harper

GENERAL INFORMATION

The physics major has two options, the B.S. degree with 67 units of physics courses, and the B.A. with 51. The B.S. provides excellent preparation for a graduate program, or participation in industrial or governmental research. The B.A. can be completed in three years and thus it allows the student to broaden his or her scientific background by taking more courses outside the Physics Department. The student can add a minor in biology, earth sciences, business administration or can use the degree as preparation for medical or law school.

Both degrees serve as preparation for a high school teaching career in the physical sciences.

There is opportunity for the student to work on independent senior projects. The equipment available includes an infra-red spectrometer, electron-spin-resonance apparatus, ultra-high vacuum equipment for atomic and molecular collision phenomena, a multi-channel analyzer for nuclear radiation studies. Individual projects can be built up around the areas of interest to the student, such as geophysics, biophysics or radiation physics.

The Physics Major Leading to a B.A. or B.S. Degree

Requirements

I. Complete the 76-unit requirement in general education, which applies to all majors. Students completing this major will have satisfied requirements 8 units of Basic Subjects and 10 units of Natural Sciences for lower-division General Education. Study of one or more modern foreign languages is highly recommended.

II. Complete the following requirements for both B.A. and B.S.:

<i>Lower Division</i>	<i>Units</i>
Phys. 1001, 2, 3. General Physics.....	15
Chem. 1101, 2, 3. General Chemistry	15
Math. 1304, 1305, 2304 Calculus I, II, III	12
Math. 2101. Linear Algebra.....	4
Math. 3331. Differential Equations I	4
Total Lower Division Units	50
<i>Upper Division</i>	
Phys. 3000. Contemporary Physics	4
Phys. 3100. Analytic Mechanics.....	4
Phys. 3150. Statistical Mechanics.....	4
Phys. 3200. Quantum Mechanics I	4
Phys. 3300. Mathematical Physics I.....	4
Phys. 3400. Electromagnetism	4
Phys. 3881, 2, 3. Intermediate Lab.....	1
Phys. 4881, 2, 3. Advanced Lab	3
	28
<i>Electives</i>	
Any two Upper-Division Physics Courses.....	8
except Physics 3700, 3881-3, 4881-3	
B.A. must include a 4000 level Physics course.	
Total Upper-Division Units for B.A.	36

III. Additional Upper-Division Requirements For B.S.:	
Phys. 4100. Advanced Dynamics	4
Phys. 4200. Quantum Mechanics II.....	4
Phys. 4300. Mathematical Physics II.....	4
Phys. 4400. Advanced Electromagnetism.....	4
	<hr/>
Total Upper-Division Units for B.S.....	16
	<hr/>
Total Number of Units for B.S.....	102
Total Number of Units for B.A.	86

Illustrative Program for the Physics Major

(General Education Electives not shown)

	Units		
	Fall	Wint.	Spr.
<i>First Year</i>			
Math. 1304, 1305, 2304	4	4	4
Chem. 1101, 1102, 1103	5	5	5
Phys. 1001, 1002, 1003	5	5	5
<i>Second Year</i>			
Math. 2101, 3331	4	4	
Phys. 3000, 3100	4		4
Phys. Elective.....			4
Phys. 3881		1	
<i>Third Year</i>			
Phys. 3300, 3400, 3150	4	4	4
Phys. 3200, 4200.....	4	4	
Phys. 4881, 2, 3	1	1	1
<i>End of B.A. Major</i>			
<i>Fourth Year</i>			
Phys. 4100, 4300, 4400	4	4	4
Phys. Elective.....	4		
<i>End of B.S. Major</i>			

The Minor in Physics

Students majoring in other fields may wish to minor in physics in order to expand their employment opportunities or to broaden their understanding of physical science. Students completing this program will have that fact entered on their university records.

	Units
Phys. 1001, 2, 3. General Physics	15
or	
Phys. 2701, 2, 3. Introductory Physics.....	12
Math. 1304, 1305, 2304. Calculus I, II, III.....	12
Phys. 3000. Contemporary Physics.....	4
Phys. 3200. Quantum Mechanics I.....	4
Phys. 3881. Intermediate Laboratory.....	1
At least three upper-division physics courses, <i>not including Phys. 3700.</i> (May include intermediate and advanced laboratories.)	12

45 or 48

Master of Science in Physics

GENERAL INFORMATION

The Department of Physics offers graduate study leading to the Master of Science degree. The candidate will be responsible for the fulfillment of the general requirements stated in the catalog as well as the specific departmental requirements. Students considering graduate study beyond the Master's degree should be aware that most institutions offering doctoral programs in physics require completion of the Graduate Record Examination.

Requirements for the Master of Science in Physics

The M.S. degree may be obtained through one of two options: Option A (coursework plus comprehensive examination) or Option B (coursework plus thesis). In addition to the general CSUH requirements for the degree, the specific requirements for the two options are:

OPTION A

1. completion of the courses Phys. 6311,-2,-3; 6321,-2,-3; 6811; 6870 (Graduate Seminar);
2. completion of 16 elective units, of which at least 4 must be in physics; the remainder could be upper-division or graduate courses in chemistry, mathematics, physics, or statistics;
3. successful completion of comprehensive written and oral examinations at the end of the course of study;

OPTION B

1. completion of the courses Phys. 6311,-2; 6321,-2; 6870 (Graduate Seminar); Phys. 4881,-2,-3 (3 to 9 units);
2. completion of 10 to 16 elective units selected from upper-division or graduate courses in chemistry, mathematics, physics or statistics;
3. completion of a satisfactory thesis (9 units).

Admission to the Program

A student may be admitted to the program as a classified student if he or she:

1. has met the general CSUH requirements for graduate standing;
2. has a bachelor's degree or equivalent with a major in physics;
3. has attained a 3.0 grade point average in the upper-division physics courses he or she has taken.

Completion of all of these requirements will admit a student to the program as a classified graduate student. Prior to completion, and with a favorable recommendation from the Department Chairman and Graduate Adviser, a student may be admitted to the program in a conditionally classified status. It should be understood that conditionally classified status exists only for the purpose of making up deficiencies in admission requirements and demonstrating potential as a graduate student.

Limitation on units earned in conditionally classified status

A maximum of 16 units of approved courses taken as a conditionally classified student may be counted toward the master's degree requirement.

Advancement to Candidacy

Before advancement to candidacy a student must:

1. be a classified graduate student in good standing;
2. have completed 16 quarter units of course work beyond the baccalaureate degree, with average grade of B or better, including 12 quarter units of level-6000 course work in physics.

UPPER-DIVISION PHYSICS COURSES ACCEPTABLE FOR THE MASTER'S DEGREE

With departmental approval, the following upper-division courses may be used as physics electives in the Master of Science degree program:

Phys. 3850. Vacuum Physics

Phys. 4881,-2,-3. Advanced Laboratory (May be repeated for credit)

- Phys. 4100. Advanced Dynamics**
- Phys. 4200. Quantum Mechanics II.**
- Phys. 4300. Mathematical Physics II.**
- Phys. 4400. Advanced Electromagnetism**
- Phys. 4500. Solid State**
- Phys. 4700. Modern Optics**
- Phys. 4800. Selected Topics (May be repeated for credit)**

UNDERGRADUATE COURSES

1001, 1002, 1003. General Physics (5 each)

All major fields of physics are covered in the sequence. For physics, physical science, earth science (Option A) and chemistry (B.S.) majors. Calculus I, II, III, Math. 1304, 1305, 2304 are required antecedently or concurrently. Each course is a prerequisite of the one following.

1001. Mechanics, Gravitation and Relativity

1002. Electromagnetism, Waves and Optics

1003. Quantum Theory, Nuclear Physics, Thermodynamics and Statistical Physics

Four hrs. lect., 3 hrs. lab., each. (Y)

1700. Elements of Physics (3)

A relatively non-mathematical survey of classical and modern physics, including mechanics, electricity, quantum mechanics, relativity, and recent developments; some discussion of the history and philosophy of science. For students who are not majoring in physics. No prerequisite. Three hrs. lect. (A)

1780. Elementary Physics Laboratory (1)

A relatively non-mathematical lab designed to accompany Phys. 1700. Experiments deal with mechanics, electronics, radioactivity, etc., at an elementary level, and introduce the student to various types of equipment including oscilloscopes and geiger counters. For students who are not majoring in physics. No prerequisite. Three hrs. lab. (A)

1800. Descriptive Astronomy (4)

A survey course emphasizing description; astronomical methods, planets, stars, constellations, galaxies, stellar objects and their evolution. For students who are not majoring in physics. Prerequisite: high school algebra. Five hrs. lect. (Y)

1920-1999. Directed Group Study (1-4)

2701, 2702, 2703. Introductory Physics (4 each)

A three-quarter sequence in general physics, designed primarily for students majoring in the biological sciences (including pre-professional students), chemistry (B.A.), and earth sciences (Options B, C) 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. (Y)

2701. Force, Mass and Motion

Prerequisites: Math 1130, high school trigonometry.

2702. Heat, Sound, Electricity and Magnetism

Prerequisite: Phys. 2701.

2703. Light and Modern Physics

Prerequisite: Phys. 2702.

3000. Contemporary Physics (4)

A descriptive introduction to topics of contemporary interest in fields such as relativity, quantum physics, and critical phenomena. Prerequisite: Phys. 1003, or 2703 and Math. 1305. Four hrs. lect. (F)

3100. Analytic Mechanics (4)

An intermediate treatment and application of Newton's Laws, conservation laws, Kepler's laws and planetary motion, oscillators, the Coriolis force, rigid bodies and fluids. Prerequisite: Phys. 1003, Differential Equations recommended. Four hrs. lect. (Sp)

3150. Statistical Mechanics (4)

An introduction to the methods of classical and quantum statistics with the following applications: development of the laws of thermodynamics; distribution laws, ideal and real gases, ideal and real solids, Bose-Einstein condensation, free electron gas model of metals, and critical phenomena. Prerequisite: Phys. 3000 or Chem. 4500. Four hrs. lect. (Sp)

3200. Quantum Mechanics I (4)

An introduction to the concepts of quantum theory and Schroedinger's equation. Applications to simple systems such as a free particle, barriers and wells, and harmonic oscillator; the central force problem will be treated. Prerequisite: Phys. 3000 or Chem. 4500. Four hrs. lect. (F)

3300. Mathematical Physics I (4)

Rudiments and physical applications of vector analysis and coordinate transformations, ordinary and partial differential equations, and special functions in physics. Prerequisite: Phys. 1003, Differential Equations recommended. Four hrs. lect. (F)

3400. Electromagnetism (4)

An intermediate treatment of electricity and magnetism based on Maxwell's equations. Applications to electrostatics, currents, electromagnetic induction and electromagnetic radiation. Prerequisite: Phys. 1003, Differential Equations recommended. Four hrs. lect. (W)

3500. Electronics (4)

Behavior of tubes, transistors, and integrated components in circuits which occur frequently in electronic measurement and display. Emphasis will be on circuit performance. Prerequisite: Phys. 1003, or Phys. 2703 and Math. 1305. Two hrs. lect., 6 hrs. lab.

3600. Nuclear Physics (4)

Basic properties of nuclei. Radioactivity and radiation. Nuclear reactions. Nuclear energy. Elementary particles. Prerequisite: Phys. 1003 or 2703 and Math. 1305. Four hrs. lect.

3650. Energy and Environment (4)

Sources of energy and methods of utilization; analysis of the role of energy in society and environment. Future needs and problems. Prerequisite: Phys. 1003 or 2703 and Math. 1305. Four hrs. lect./disc., with field trips.

3700. Radiation and Man (4)

Ionizing radiation sources; uses in nuclear power, industry, medicine, research; benefits, hazards; government policy. Suitable for general education requirements. Not an elective for the Physics major. Prerequisite: Upper division standing (Y).

3800. Astrophysics (4)

Physical models of the structure and evolution of stars and of stellar objects such as pulsars, quasars and black holes. Introductory cosmology, including concepts from special and general relativity. Prerequisite: Phys. 1003 or 2703 and Math. 1305. Four hrs. lect.

3850. Vacuum Physics (4)

The molecular theory of gases, the flow of gases, vacuum pumps and instrumentation, and some selected vacuum applications. Particular attention will be given to ultra-high vacuum systems. Individual project, usually experimental in nature required. Prerequisite: Phys. 1003 or Phys. 2703 and Math. 1305. Two hrs. lect./disc., 6 hrs. lab.

3881,-2,-3. Intermediate Laboratory (1)

Experimental techniques and equipment. Specific experiments cover various aspects of modern physics, including optics, atomic and nuclear physics. Prerequisite: Phys. 1003 or 2703 and Math. 1305. Three hrs. lab. (A)

4100. Advanced Dynamics (4)

Non-relativistic and relativistic kinematics of two-particle collisions, Lagrangian and Hamiltonian formulation of mechanics, introduction to the Calculus of Variations, theory of small vibrations and wave propagation in continuous media. Prerequisite: Phys. 3100 and 3300. Four hrs. lect. (F)

4200. Quantum Mechanics II (4)

The applications of wave mechanics to systems of identical particles, the exclusion principle, atomic structure and approximation methods for systems of many electrons, molecular systems, selection rules, and atomic and molecular spectra. Prerequisites: Phys. 3200 and 3300. Four hrs. lect. (W)

4300. Mathematical Physics II (4)

An introduction to functions of a complex variable, Fourier series, and Fourier transforms with physical applications. Prerequisite: Phys. 3300. Four hrs. lect. (W)

4400. Advanced Electromagnetism (4)

Further study of Maxwell's equations. Electromagnetic waves, wave guides, resonators. Radiation from oscillating multipoles and antennas. Relativistic electrodynamics. Prerequisite: Phys. 3300 and 3400. Four hrs. lect. (Sp)

4500. Solid State (4)

Crystal structures; dielectric, thermal and mechanical properties; metals and semi-conductors, superconductivity. Prerequisite: Phys. 3200 or Chem. 4500. Four hrs. lect.

4700. Modern Optics (4)

Physical optics with applications in interferometry, transform spectroscopy and holography. Stimulated emission and lasers. Descriptive introduction to linear and non-linear interactions between radiation and matter. Prerequisite: Phys. 3400 and 3300. Four hrs. lect.

4800. Selected Topics (4)

Topics of contemporary interest such as plasma physics, quantum electronics, elementary particles, nuclear physics, astro-physics, or hydrodynamics. Topics selected by student demand. May be repeated for credit. Prerequisite: consent of instructor. Four hrs. lect.

4881,-2,-3. Advanced Lab (1-3)

Each student consults with a professor concerning an experimental or theoretical project; he then studies the pertinent literature, carries out the project, and writes a final report. Prerequisite: Phys. 3881. (A)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)****GRADUATE COURSES****6311. Classical Theoretical Physics (Mechanics) (4)**

Development of Lagrangian and Hamiltonian formulation of mechanics; variational principles; rigid-body mechanics; canonical transformations; theory of small oscillations. Prerequisite: undergraduate course in mechanics.

6312. Classical Theoretical Physics (Electromagnetism) (4)

Solutions of Maxwell's equations and boundary-value problems; electromagnetic energy and momentum; theory of radiation; relativistic electrodynamics. Prerequisite: undergraduate course in electromagnetism.

6313. Classical Theoretical Physics (Statistical Physics) (4)

Methods of statistical mechanics; ensemble theory, density matrix technique; the H-theorem; irreversible processes and fluctuations. Prerequisite: undergraduate course in statistical physics.

6321. Quantum Mechanics I (4)

Non-relativistic quantum theory with applications; perturbation methods; theory of scattering. Prerequisite: undergraduate course in quantum mechanics.

6322. Quantum Mechanics II (4)

Transformation theory; representations and pictures; symmetry laws. Prerequisite: Phys. 6321 or equivalent.

6323. Quantum Mechanics III (4)

Semiclassical theory of radiation; spin and statistics; canonical field quantization; Fock space. Prerequisite: Phys. 6322 or equivalent.

6811. Mathematical Methods of Physics (4)

Equations of theoretical physics and methods of solution; variational principles in dynamics and quantum theory; symmetry principles for physical systems. Prerequisite: upper-division course in mathematical physics or equivalent or consent of instructor.

6870. Graduate Seminar (1)

Student participation in the study of topics of current interest in physics. Reports on and discussion of current journal articles. May be repeated for credit. Prerequisites: graduate standing in physics, or consent of instructor. (Y)

6900. Independent Study (1-4)**6910. Thesis (1-9 units)****6920-6999. Directed Group Study (1-4)**

POLITICAL SCIENCE

(Department of Political Science; School of Arts, Letters and Social Sciences)

Professors: Marilyn-June Blawie, Scott E. Edwards, Otto F. Freitag, Bernard Hennessy, Darril Hudson, Charles W. Merrifield, Gene S. Poschman, J. Malcolm Smith

Associate Professors: Horst G. Duhnke, James S. Fay, Daniel R. Graves, Sherman L. Lewis, Joanne F. Loomba, Thomas R. Morrison, James L. Nichols (Chair), Emily Stoper

The Political Science Major Leading to a B.A. Degree

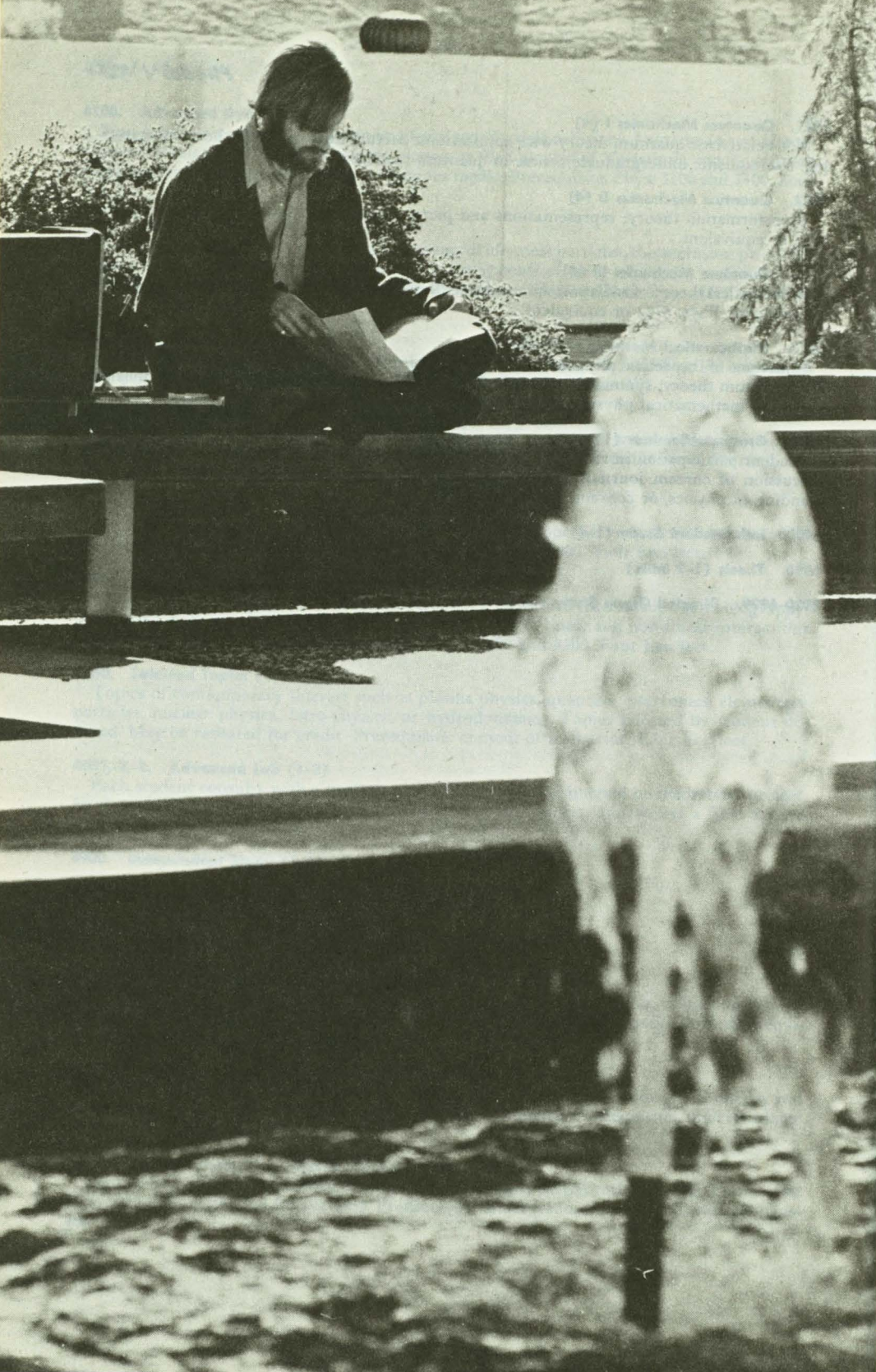
General Statement

CSUH offers a major in political science which leads to the bachelor of arts degree. The objective of this program is to educate to the baccalaureate degree level those students seeking a liberal education with a concentration in political science. The political science curriculum helps the student to acquire an organized body of knowledge about political and social affairs, to obtain an understanding of the relationship of political science to other major areas of study, to develop the ability of critical and coherent thinking, and to be qualified to enter various fields of employment, such as government service, law, teaching and private agencies. For students contemplating a career in public administration, the Public Affairs and Administration Option is especially appropriate.

Requirements

I. Complete the 76-unit requirement in general education, required for B.A. and B.S. degrees. Students completing a major in Political Science may apply up to a maximum of 32 units of course work taken in the regular major program or in the Public Affairs and Administration Option to the University's General Education requirements, according to the following scheme. Up to 9 units of Foreign Language, Mathematics, or Statistics courses may be applied to the requirement in Basic Subjects (General Education requirement I.A.2). Up to 5 units of Mathematics or Statistics courses may be applied to the area requirement in Natural Sciences (General Education requirement I.C.3). From courses taken to fulfill major requirement III (related fields) or requirement II (electives) in the Option, up to 16 units of social science courses may be applied to the area requirement in Social Sciences (General Education requirement I.D.); up to 12 units of Humanities courses may be applied to the area requirement in Humanities (General Education requirement I.B.2-3); up to 16 units of Humanities and/or Natural Sciences courses may be applied to Upper Division General Education requirements; and up to 8 units of Humanities and/or Natural Sciences courses may be applied to General Education electives (General Education requirement III).

II. Courses in Political Science	56 units
A. <i>Lower Division</i> (16 units)	
1. Pol. Sci. 1201-2. American Political Institutions or approved equivalent.....	8
2. Any two of the following courses, or equivalents:	
PoSc 1000 Introduction to Political Science (4)	
PoSc 1300 Foreign Governments (4)	
PoSc 1500 World Politics (4)	
PoSc 1700 Introduction to Political Thought (4)	
PoSc 2400 Introduction to Public Affairs (4)	
B. <i>Upper Division</i> (40 units)	
1. Pol. Sci. 3010. Political Inquiry	4
2. One course in political theory	4
3. One course in three of the following four fields	12
1) American Government and Politics, and Public Administration (includes courses listed under Public Policy and Administration)	



- 2) Public Law
- 3) Comparative Government and Politics
- 4) International Relations
- 4. Sixteen additional units from the above offerings 16
- 5. Pol. Sci. 4910. Political Science Seminar 4
- III. Courses in supporting fields..... 16-32 units
- A. Sixteen quarter units of approved upper-division courses in anthropology, economics, geography, history, mass communication, (choose from MCom. 3700, 3110, and 3240), philosophy, psychology, social science, sociology and statistics. These courses must be selected with the approval of student's adviser. 16
- B. The completion of one of the following three communications skills is required. Students should confer with their academic adviser before attempting to meet the requirement; written consent of the adviser is required. These units may be applied toward the fulfillment of General Education requirements. These courses may be taken on credit/no credit basis.
- 1) Foreign Language, a 12-16 unit requirement, to be met by (0-16)
 - a) Successfully challenging any foreign language course numbered 2-1, or 1-6,
 - b) Passing a language course numbered 2-1 or 1-6, or
 - c) Scoring at or above the mean of a SAT achievement test in the language.
- 2) Mathematics, a 16-unit requirement, to be met by completing Math. 3701 (note its prerequisites). (16)
- 3) Quantitative Methods, a 9-unit requirement to be met by completing Stat. 1000, and either Stat. 3010 or Soc. 2400 (9)

Unit Summary

Major: courses in Political Science	56	} 72-88 units
courses in supporting fields	16-32	

The 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 designation that the student has been awarded a B.A. in Political Science, with an "Option in Public Affairs and Administration." The course requirements for this option are as follows:

- 1. Courses in Public Affairs and Administration 73 units
- A. Lower Division Requirements (33 units)
 - Pol. Sci. 1201. American Political Institutions..... 4
 - Pol. Sci. 1202. American Political Institutions..... 4
 - Pol. Sci. 1000. Introduction to Political Science 4
 - Pol. Sci. 2400. Introduction to Public Affairs and Administration.... 4
 - Econ. 2301. Principles of Economics I 4
 - Econ. 2302. Principles of Economics II..... 4
 - One of the following:
 - Stat. 1000. Elements of Probability and Statistics..... 5
 - Stat. 2010. Elements of Statistics for Business and Economics 5
 - Stat. 2120. Elements of Statistics in Sociology..... 5
 - One of the following:
 - Acct. 2210. Accounting for Non-Business Majors 4
 - Acct. 2251. Principles of Accounting I 4
 - Acct. 2270. Introduction to Programming and Business Computer Systems..... 4
 - Math. 1700. Elementary Computer Programming 4
- TOTAL Lower Division Units..... 33

B. Upper Division Requirements (40 units)

A student must take 40 units of upper division coursework chosen from the following three groups, with at least 12 units from Group I, at least 8 units from Group II, and at least 8 units from Group III.

Group I—Public Affairs and Administrative Processes

- Pol.Sci. 3800. Public Policy Analysis 4
- Pol.Sci. 4450. Administrative Law 4
- Pol.Sci. 4861. Politics of Budgeting 4
- Pol.Sci. 3870. Introduction to Public Personnel 4
- Pol.Sci. 4880. Comparative Administrative Processes 4
- Pu.Ad. 4800. The Study of Public Administration..... 4
- Pu.Ad. 4830. Organization Theory and Human Behavior 4
- Acct. 4280. Governmental Accounting 4
- Econ. 3370. Public Finance 4

Group II—Political Institutions and Processes

- Pol.Sci. 3111. The American Executive..... 4
- Pol.Sci. 3112. Congress and the California Legislature 4
- Pol.Sci. 3410. Law and Society 4
- Pol.Sci. 3120. State and Local Politics and Government..... 4
- Pol.Sci. 3130. Urban Politics 4
- Pol.Sci. 3150. Politics of California..... 4
- Pol.Sci. 3310. Political Parties and Campaigning 4
- Pol.Sci. 3330. Pressure Groups and Political Power 4
- Pol.Sci. 3441. American Constitutional Law 4
- Pol.Sci. 3442. American Constitutional Law 4
- Pol.Sci. 3460. Environmental Law 4

Group III—Public Affairs and Public Policy

- Pol.Sci. 3340. The Political Status of Women 4
- Pol.Sci. 3500. Contemporary World Problems..... 4
- Pol.Sci. 3505. American Foreign Policy 4
- Pol.Sci. 3411. Law and the Poor 4
- Pol.Sci. 3412. Women and the Law 4
- Pol.Sci. 4171. Public Policy and the Environment 4
- Pol.Sci. 4172. Public Policy and Health 4
- Mgmt. 4500. Business, Government and Society 4

TOTAL From Groups I, II, and III	40
II. Electives in Related Fields	12 units
12 units of upper division coursework from the following fields, with approval of adviser:	

- | | |
|---------------------------------|--------------------|
| Accounting | Mass Communication |
| Anthropology | Mathematics |
| Criminal Justice Administration | Philosophy |
| Economics | Psychology |
| Environmental Studies | Sociology |
| Geography | Social Science |
| Health Sciences | Speech |
| History | Statistics |
| Management Sciences | Women's Studies |

TOTAL Electives	12
<i>Unit Summary</i>	
Total Lower Division Units.....	33
Total Upper Division in Groups I, II, and III	40
Total Upper Division electives	12
TOTAL FOR OPTION	85

The Minor in Political Science

Requirements: 32 quarter units, of which four must be Political Science 1000, and 28 upper-division quarter units under written approval from a member of the Political Science Department.

American Studies Minor

A political science major may graduate with a minor in American Studies. (See *American Studies*; page 119.)

Political Science Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)
(Two social science fields must be selected)

As first field:

PoSc. 1201, 1202, 3442; 4 courses from PoSc. 3111, 3112, 3130, 3310, 3330, 4320; one course from PoSc. 3500, 3505, 3520; one course from PoSc. 3222, 3241, 3248, 3260, 3280

As second field:

PoSc. 3100, 3442; one course from PoSc. 3111, 3112, 3130, 3310, 3330, 4320; one course from PoSc. 3500, 3505, 3520; one course from PoSc. 3222, 3241, 3248, 3260, 3280

Liberal Arts Track

Credential track

(path for students seeking credential after graduation)

(Two social science fields must be selected)

As first field:

PoSc. 1201, 1202, 3442; 4 courses from PoSc. 3111, 3112, 3130, 3330; 4320; one course from PoSc. 3500, 3505, 3520; two courses from PoSc. 3222, 3223, 3224, 3241, 3248, 3260, 3280

As second field:

PoSc. 3100, 3442; two courses from PoSc. 3111, 3112, 3130, 3330, 4320; one course from PoSc. 3500, 3505, 3520; one course from PoSc. 3222, 3241, 3248, 3260, 3280

Single Subject Waiver Program: Government

The Major in Political Science has been approved by the State Commission for Teacher Preparation and Licensing as a waiver for the examination in the Single Subject Government.

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. (F,W,Sp)

1201. American Political Institutions I (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. American Political Institutions II (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. CA)

1300. Foreign Governments (4)

Comparative study of the political institutions of Great Britain and selected nations of the contemporary world, with attention to contrasts between democratic and dictatorial systems. (F,W,Sp)

1500. World Politics (4)

Consideration of issues in world affairs, with special attention to problems most relevant to present and future United States foreign policy. (F,W,Sp)

1700. Introduction to Political Thought (4)

Introductory survey of the great political philosophers; examination of major political ideas and concepts. (F,Sp)

1920-1999. Directed Group Study (1-4)

2400. Introduction to Public Affairs and Administration (4)

Politics and administration of public policy; the policy-making process; the citizen's role in public affairs; development of the institutions and processes of public administration; historical, contemporary and emerging theories of administration. (F,Sp)

UPPER DIVISION COURSES

AMERICAN GOVERNMENT AND POLITICS

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 requirement 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 Pol. Sci. 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)

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 requirement. (formerly Pol. Sci. 4120) (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. (formerly Pol. Sci. 4130) (Y)

3150. Politics of California (4)

Political culture, electoral systems, and public policy in California. Satisfies code requirement in California state and local government. (formerly Pol. Sci. 4150) (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. (formerly Pol. Sci. 4310) (Y)

3330. Pressure Groups and Political Power (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. (formerly Pol. Sci. 4330)

3340. The Political Status of Women (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. (formerly Pol. Sci. 4340) (Y)

4170. Selected Problems in American Government (4)

Focus on a particular problem of importance and interest in the field as defined by the instructor. Consult departmental office for details.

4320. Political Behavior (4)

The individual and group aspects of political behavior; social and psychological factors in politics; consideration of available research on voting behavior; extreme belief and affiliation; leadership; participation. Prerequisite: Pol. Sci. 1201 or equivalent.

PUBLIC POLICY AND ADMINISTRATION**3800. Public Policy Analysis (4)**

Examination of the causes, content, and consequences of government activity. Provides a broad survey of the formation, implementation, impact, and evaluation of public policy dealing with social and economic problems. (Y)

3870. Introduction to Public Personnel (4)

Historical development of public personnel systems; civil service reforms; elements of personnel systems: classification, examination, recruitment, internal placement, intergovernmental relations; unionization and financial aspects of public personnel management. (formerly Pol. Sci. 4870) (Y)

4171. Public Policy and the Environment (4)

Political aspects of the agency crisis, overpopulation, land use, pollution, excessive resource consumption, changing life styles, and recycling. Functions of major federal and state environmental agencies, role of environmental interest groups, environmental information for concerned citizens. (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)

4880. Comparative Administrative Processes (4)

Bureaucratic organization in historical and comparative perspectives; cross-national study of bureaucratic behavior as modified by social, economic, and cultural factors; contemporary theories of bureaucracy and controls on bureaucracy in different political systems. (Y)

COMPARATIVE GOVERNMENT AND POLITICS**3222. Government and Politics of the USSR (4)**

The political ideas and institutions of the USSR; philosophical foundations; role of Communist party; organization and functions of government; place of the individual in Soviet society. (formerly Pol. Sci. 4222) (Y)

3223. Government and Politics of Western Europe (4)

The political ideas and institutions of the major Western European nations: England, France. Prerequisite: a course in European history or consent of instructor. (formerly Pol. Sci. 4223)

3224. Government and Politics of Western Europe (4)

The political ideas and institutions of the major Western European nations: Germany, Italy, and Switzerland. Prerequisite: a course in European history or consent of instructor. (formerly Pol. Sci. 4224)

3230. Government and Politics in the Middle East (4)

Introduction to the study of contemporary politics in the Middle East. Comparative approach, analyzing the political, social, religious, and economic aspects of the area. (formerly Pol. Sci. 4230) (Y)

3241. Government and Politics on the Indian Subcontinent (4)

Dynamics of political modernization; problems of nation-building, political authority, national identity, participation, etc.; interaction between politics and social and economic development; emphasis upon contemporary governmental structure, interest articulation, political parties. (formerly Pol. Sci. 4241) (Y)

3248. Government and Politics of China (4)

Development of political ideas and institutions in Communist and Nationalist China, with emphasis upon nationalism, communism, constitutional development, foreign policy and current political problems. (formerly Pol. Sci. 4248)

3260. Government and Politics of Africa South of the Sahara (4)

The governments of the independent states and dependent territories of Africa south of the Sahara, with special reference to comparative colonial policies, nationalism, political parties and the problems of nation building, pan-Africanism and inter-state relations. (formerly Pol. Sci. 4260) (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. (formerly Pol. Sci. 4280)

4270. Selected Problems in Comparative Government (4)

Focus on a particular problem of importance and interest in the field as defined by the instructor. Consult the departmental office for details.

PUBLIC LAW**3410. Law and Society (4)**

Organization, jurisdiction and functions of national, state and inferior courts, with particular attention to California; judicial decision making and group dynamics; place of law in American society; analysis of selected reform proposals. (Y)

3411. Law and the Poor (4)

Study of criminal, welfare, domestic, and other proceedings in which an individual may lose his reputation, liberty, or property, with specific reference to the poor. (Y)

3412. Women and the Law (4)

Legal, social, economic aspects of women's status. Court opinions and scholarly materials in employment, marriage and family, divorce, child custody, education, criminal and prison law, welfare and abortion. (Y)

3441. American Constitutional Law (4)

United States Constitution as interpreted by the courts in the areas of the federal system; taxation, commerce and implied powers; inter-governmental relations; separation of powers; emphasis upon the social, economic and political factors. (formerly Pol. Sci. 4441) (Y)

3442. American Constitutional Law (4)

United States Constitution as interpreted by the courts in the areas of freedom of speech, press, religion, assembly; self incrimination; desegregation; due process; criminal procedures and safeguards. Emphasis upon social, economic and political factors affecting court decisions. (formerly Pol. Sci. 4442) (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.)

4450. Administrative Law (4)

Administrative function in the 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)

4470. Selected Problems in Public Law (4)

Focus on a particular problem of importance and interest in the field as defined by the instructor. Consult the department office for details.

INTERNATIONAL RELATIONS**3500. Contemporary World Problems (4)**

Examination of selected problems faced by nations and their political leaders in the contemporary world, such as destructive weaponry, food and population, violence and revolution, racial tensions, and the influence of psychological factors. (formerly Pol. Sci. 3000) (F,W,Sp)

3505. American Foreign Policy (4)

Presidential leadership in formulation of foreign policy; resurgence of congressional initiative and interest; interaction of labor, business, veterans' and citizen groups in policy-making; role of military, CIA, State Department in policy formulation and execution. (formerly Pol. Sci. 4505) (Y)

3520. International Relations (4)

The conduct of relations between states. The international system, nation-states, national power, sovereignty, nationalism, ideology; conduct of relations through diplomacy, propaganda, economic interdependence; problems of neocolonialism and the multinational corporation, race, nuclear deterrence and war; peaceful change and the United Nations. (F,W,Sp)

3540. World Law (4)

Law of peace: the territorial state and recognition; jurisdiction over land and territorial waters; rights of aliens, diplomatic immunity; treaties; law of sea, air and space. Non-state subjects: international organizations and multinational corporations. Law of war: land warfare and war crimes; mass bombing, gas and napalm. (formerly Pol. Sci. 4540)

3550. The United Nations and World Community (4)

History and critical review of international organization; theories of balance of power, collective security, world law and order, functional development. Problems faced by the world community: the new economic order, food-population, energy, environment. Prerequisite: Pol. Sci. 3000, or 3520, or consent of the instructor. (formerly Pol. Sci. 4550)

3570. U.S. and the Far East (4)

Forces influencing the relations between the U.S. and the states of the Far East; analysis of foreign policies of major Asian nations and factors leading to cooperation and conflict between U.S. and these states. (formerly Pol. Sci. 4570)

3580. Development and Revolution in the Americas (4)

Foreign policies of the various states in the light of domestic political forces, the role of international forces in domestic politics. Case studies of U.S. policy for stability, development, and aid; military interventions, economic sanctions, and inter-American cooperation. (formerly Pol. Sci. 4580)

4670. Selected Problems in International Relations (4)

Focus on a particular problem of importance and interest in the field as defined by the instructor. Consult the departmental office for details.

POLITICAL THEORY**3711. Ancient 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. (formerly Pol. Sci. 4711) (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. (formerly Pol. Sci. 4712) (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. (formerly Pol. Sci. 4713) (Y)

3720. Totalitarian Ideologies (4)

Analysis of doctrines of Communism, Nazism, Fascism and related "isms" and their impact on the practices of totalitarian states. Prerequisite: Pol. Sci. 3713 or a course in modern European history or consent of instructor. (formerly Pol. Sci. 4720)

3731. Early American Political Thought (4)

American political thought from the founding to 1860; the Puritans, revolutionary doctrines, Jeffersonian and Jacksonian democracy, the Transcendental and Utopian Socialist contribution, the slavery controversy. (formerly Pol. Sci. 4731)

3732. Recent American Political Thought (4)

American political ideas of the last hundred years. Emergence of social Darwinism and its critics, the reform movements of the 19th and 20th centuries, theories of liberal democracy, the new conservatism, the role of political theory in the political process. (formerly Pol. Sci. 4732)

4770. Selected Problems in Political Theory (4)

Focus on a particular problem of importance and interest in the field as defined by the instructor. Consult the departmental office for details.

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)

3113. Political Internship (4)

Practical experience on a legislative or executive staff or in a campaign organization. May be taken CR/NC. Prerequisite: Permission of instructor. Pol. Sci. 3112 for a legislative internship. One hr. lect., 6 hrs. act. (Y)

4690. Senior Seminar in American Studies (4)

Interdisciplinary seminar on topics in American civilization. The course is required for seniors in the American Studies Concentration. Any student may enroll. May be repeated for credit with consent of instructor.

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. (F, W, Sp)

4920-4999. Directed Group Study (1-4)

PSYCHOLOGY

(Department of Psychology, School of Science)

Professors: Georgia Babladelis, Judith A. Hunt, Stuart T. Klapp, Norman Livson (Chair), Roy T. Matsumoto, Arnold Mechanic, Robert W. Moulton, Allan Netick, William L. Sawrey, Ronald J. Schusterman, Joan E. Sieber, Donald J. Strong

Associate Professors: Richard L. Floyd, Nancy S. Harrison, Fred I. Leavitt, Eleanor K. Levine, Alan Monat, Michael E. Patch, Jordan Rosenberg, Wiley C. Small, Arnold E. Stoper, David G. Tieman

GENERAL INFORMATION

The Department of Psychology offers a wide range of courses, including Behavior Modification, an introduction to Clinical Psychology, Comparative Psychology (cross-species comparisons), Developmental Psychology (growth of personality and cognitive functions in humans), Individual Differences, Learning, Motivation, Perception, Personality (normal and otherwise), Physiological Psychology, Social Psychology, Testing, and many others.

The department offers a major program leading to the B.A. degree, emphasizing a broad education in the fundamental principles of psychology. There are special options in the areas of Biological Psychology, Psychology in Education, Human Information Processing, Personality Development and Clinical Processes, Quantitative Methods, and Social Behavior, to be taken within the major program. The department also offers a Psychology Minor and a Psychology Option in the Liberal Studies Program. Many psychology courses fulfill requirements for other majors and for general education for other majors. Interested students may ask the department office for the "Psychology Information Booklet" which describes the programs in more detail and discusses career opportunities in psychology.

The Psychology Major Leading to a B.A. Degree

Requirements

- I. Complete the 76-unit requirement in general education, which applies for all degrees.
- II. The following courses (or their equivalents) are required for the Psychology major. The completion of the major program for graduation requires at least a C (2.00) average in these courses. The major requires at least 41 units of upper-division psychology courses.

<i>Core requirements (All required)</i>		<i>Units</i>
Psyc. 2000. General Psychology I: Overview		5
Psyc. 2010. General Psychology II: Methods		4
Stat. 1000.*† Elements of Probability and Statistics		5
Stat. 3010.* Statistical Methods in the Social Sciences		4
Biol. 1000.* Principles of Biology		5
Psyc. 3100. Experimental Psychology		5
Psyc. 4200. Conditioning and Learning		4
		32

Breadth requirements (One from each line required)

Psyc. 3200, 3210, or 3220. Testing/Test Construction/Individual Differences (Psyc. 3210 and 3220 were formerly 4730 and 4790)	4
Psyc. 3500, 4420, or 4610. Social/Developmental/Personality	4
Psyc. 4220, 4345, or 4740. Cognitive/Sensory/Psycholinguistics	4
Psyc. 4310, 4320, or 4350. Comparative/Physiological/Hereditry	4
Psyc. 4210 or 4300. Theories of Learning/Motivation	4
	20

* May also be used toward satisfying the General Education Requirement.

† May be taken credit/no credit.

Laboratory requirements (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 (2 units)	
Psyc. 4801. Learning and Motivation (2 units)	
Psyc. 4802. Sensation and Perception (2 units)	
Psyc. 4803. Physiological Psychology (2 units)	
Psyc. 4804. Social and Personality (2 units)	
Psyc. 4805. Comparative Psychology (2 units)	4

Elective requirements

Twelve additional units of 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, 4890, and 4900) may be used toward satisfying this requirement. Courses designated "Not applicable to the Psychology major" may not be used toward satisfying this requirement.	12
<i>Total unit requirement</i>	68

Options

To meet the diversity of interests among psychology majors and to advise students about major areas in psychology, the department has designed some special options. Options are academic undergraduate specializations within psychology and are not intended to provide specific professional preparation. *It is not necessary for a student to select an option.*

Each option simply specifies which courses the student should select to satisfy the Breadth, Laboratory, and Elective requirements of the major. Thus an option *does not* represent additional requirements; it merely specifies how a student who elects an option should fulfill the requirements.

A student meeting all requirements of a particular option can have that fact noted on his/her transcript. Substitutions for option requirements can be arranged with an adviser who will also be able to suggest appropriate elective courses in other departments. Substitutions for the option requirements do *not* change the requirements for the major.

The available options are:

<i>Biological Psychology Option</i>	<i>Units</i>
Psyc 4310 Comparative Animal Psychology	4
Psyc 4320 Physiological Psychology I	4
Psyc 4803 Physiological Psychology Laboratory	2
Two courses from the following list:	8
Psyc 3530 Animal Social Psychology (4)	
Psyc 4330 Physiological Psychology II (4)	
Psyc 4345 Sensory Processes (4)	
Psyc 4350 Heredity and Behavior (4)	
Psyc 4360 Psychopharmacology (4)	
One course from the following list:	2
Psyc 4801 Learning and Motivation Laboratory (2)	
Psyc 4805 Comparative Psychology Laboratory (2)	20

<i>Psychology in Education Option</i>	
Four courses from the following list:	16
Psyc 3210 Principles of Test Construction (4)	
Psyc 3250 Behavior Modification (4)	
Psyc 4210 Theories of Learning (4)	
Psyc 4220 Cognitive Processes (4)	
Psyc 4420 Developmental Psychology (4)	

*May also be used toward satisfying the General Education Requirement.

Psyc 4740 Verbal Behavior and Psycholinguistics (4)	
One course from the following list:	2
Psyc 4800 Human Learning and Cognition Laboratory (2)	
Psyc 4801 Learning and Motivation Laboratory (2)	18

Human Information Processing Option

Four courses from the following list:	16
Psyc 3400 Applied Psychology (4)	
Psyc 4220 Cognitive Processes (4)	
Psyc 4345 Sensory Processes (4)	
Psyc 4346 Perceptual Processes (4)	
Psyc 4740 Verbal Behavior and Psycholinguistics (4)	

One course from the following list:	2
Psyc 4800 Human Learning and Cognition Laboratory (2)	
Psyc 4802 Sensation and Perception Laboratory (2)	18

Personality Development and Clinical Processes Option

Psyc 4320 Physiological Psychology I	4
Psyc 4410 Behavior Pathology	4
Psyc 4420 Developmental Psychology	4
Psyc 4610 Psychology of Personality	4
Psyc 4804 Social and Personality Laboratory	2

One course from the following list:	
Psyc 3250 Behavior Modification (4)	
Psyc 3520 Interpersonal Processes (4)	
Psyc 4350 Heredity and Behavior (4)	
Psyc 4360 Psychopharmacology (4)	
Psyc 4620 Theories of Personality (4)	
Psyc 4630 Introduction of Psychotherapy and Clinical Methods (4)	4
	22

Quantitative Methods Option

Psyc 3200 Psychological Tests	4
Psyc 3210 Principles of Test Construction	4
Psyc 3220 Psychology of Individual Differences	4
Stat 4000 Statistical Analysis in the Behavioral Sciences	4
	16

Social Behavior Option

Psyc 3500 Social Psychology	4
Psyc 3510 Attitudes and Opinions	4
Psyc 3520 Interpersonal Processes	4
Psyc 3530 Animal Social Psychology	4
Psyc 4804 Social and Personality Laboratory	2
	18

The Minor in Psychology

The minor consists of not fewer than 21 units of upper-division psychology courses. The following courses are required for the minor:

1. Psyc. 2000, 2010, 3100.
2. Stat. 1000† and Stat. 3010;
or Stat. 2010 and Mgmt. 3100;
or Stat. 2120 and Stat. 3010;
or Stat. 3031 and Stat. 4031;
or Stat. 2400 and Stat. 3502.
3. Sixteen additional units selected at the student's option from courses meeting the Elective Requirements in the description of the major.

† May be taken credit/no credit.

Psychology Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)
Two social science fields must be selected

As first field:

Psyc. 2000, 2010, 3100; four upper division psychology electives; Stat. 1000, 3010

As second field:

Psyc. 2000, 2010, 3100; Stat. 1000, 3010

Liberal Arts Track

Credential Track (path for students seeking credential after graduation)

Two social science fields must be selected

As first field:

Psyc. 2000, 2010, 3100; six upper division psychology electives; Stat. 1000, 3010 (these satisfy $\frac{1}{3}$ of Area 2c requirements)

As second field:

Psyc. 2000, 2010, 3100; three upper division psychology electives; Stat. 1000, 3010 (these satisfy $\frac{2}{3}$ of Area 2c requirements).

COURSES

1500. Survey of Human Development (4)

Theory and research in human development; physical and physiological changes, perception, cognition, learning, personality and social behavior. No credit toward the Psychology major.

1920-1999. Directed Group Study (1-4)

2000. General Psychology I: Overview (5)

An introduction to the scientific study of basic processes underlying human and animal behavior; sensation and perception, learning and thinking, motivation and emotion. Four hrs. lect., 2 hrs. act. (F, W, Sp)

2010. General Psychology II: Methods (4)

Survey of method, content, and theory in the scientific study of behavior. Selected problems of psychology viewed in terms of the experiments by which they have been investigated, with emphasis on understanding research reports. Prerequisite: Psyc. 2000. (F, W, Sp)

3050. Instrumentation for Psychology (4)

A laboratory course which surveys apparatus and methods used within instrumentation for psychology. Basic principles of operation of laboratory equipment are covered. Prerequisite: Psyc. 2010, or consent of instructor. Three hrs. lect., 3 hrs. lab.

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. 2010; Stat. 3010, or Stat. 3502, or Stat. 4031, 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. 2010, or senior standing and Psyc. 2000, or consent of instructor; Stat. 1000, or Stat. 2010, or Stat. 2120. (Y)

3210. Principles of Test Construction (4)

Introduction to constructing and statistically analyzing and evaluating standardized and non-standardized tests. Principles of measurement. Prerequisites: Psyc. 2010, or senior standing and Psyc. 2000, or consent of instructor; Stat. 1000 and Stat. 3010, or Stat. 2010. Previously Psyc. 4730.

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. 2010, or senior standing and Psyc. 2000, or consent of instructor; Stat. 1000, or Stat. 2010, or Stat. 2120, or Stat. 3031. Previously Psyc. 4790. (Y)

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. 2010 or senior standing and Psyc. 2000, or consent of instructor.

3310. Mathematical Methods in Psychology (4)

Application of elementary probability principles to decision making. Consideration of selected mathematical techniques from both a theoretical and applied quantitative point of view. Prerequisite: consent of instructor. (On demand)

3320. Introduction to Mathematical Psychology (4)

The role of mathematical models in theory and data analysis. Representative topics from psychophysics, measurement, perception, learning, memory, and motivation. Prerequisite: consent of instructor. (On demand)

3330. Topics in Mathematical Psychology (4)

Selected topics: Discussion of current developments in the application of mathematical methods to topics of interest in the social/behavioral sciences. Prerequisite: consent of instructor. (On demand)

3400. Applied Psychology (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. Prerequisites: Psyc. 2010, or senior standing and Psyc. 2000, or consent of instructor.

3410. The Feminine Perspective (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. Not applicable to Psychology major. Prerequisite: Upper division standing or consent of instructor.

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 only. Not applicable to Psychology major, or to Lower Division General Education requirements. Prerequisite: Upper division standing.

3500. Social Psychology (4)

Current theory and research on the individual in society, small groups, and interpersonal interaction. Socialization, social structure, attitude formation, and group structure. Prerequisite: Psyc. 2010, or senior standing and Psyc. 2000, or consent of instructor. (Y)

3510. Attitudes and Opinions (4)

The study of the nature of attitudes and opinions, and factors affecting their development and change. Persuasion, propaganda tactics, and attitude structures. Prerequisite: Psyc. 3500.

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. 2010; or senior standing and Psyc. 2000; or consent of the instructor.

3530. Animal Social Psychology (4)

Operation of the structure and organization of animal societies. Selected study of invertebrate and vertebrate societies. Emphasis on birds and mammals. Prerequisite: Psyc. 2010, or senior standing and Psyc. 2000, or consent of instructor.

4200. Conditioning and Learning (4)

Basic principles and results of conditioning and learning experimentation. Prerequisite: Psyc. 2010, or senior standing and Psyc. 2000, or consent of instructor. (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. 2010, or senior standing and Psyc. 2000, or consent of instructor. (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 Animal Psychology (4)

Survey of the similarities and differences in sensory systems, learning, motivation, social organization, and development of closely related and relatively unrelated animal species, including man. Prerequisite: Psyc. 2010, or senior standing and Psyc. 2000, or consent of instructor. (Y)

4320. Physiological Psychology I (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. 2010, or senior standing and Psyc. 2000, or consent of instructor. (Y)

4330. Physiological Psychology II (4)

Continuation of Psych. 4320. Prerequisite: Psyc. 4320.

4345. Sensory Processes (4)

Introduction to the senses, emphasizing vision and hearing; selected special topics such as body orientation, hunger, and sexual stimulation. Structure and activity of the receptors and neural processing systems. Methods of research and measurement. Prerequisite: Psyc. 2010, or senior standing and Psyc. 2000, or consent of instructor. (Y)

4346. Perceptual Processes (4)

Higher order perceptual processes, including perceptual organization, pattern and speech recognition, attention, perceptual learning and theories of perception. Prerequisite: Psyc. 4320 or 4345, or consent of instructor.

4350. Heredity and Behavior (4)

A consideration of genetic and environmental determinants of behavior and psychological characteristics of animals and humans. Prerequisite: Psyc. 2010, or senior standing and Psyc. 2000, or consent of instructor.

4360. Psychopharmacology (4)

Selected topics in psychopharmacology; principles of drug action; methodology; drug effects on creativity, sleep and dreams, sexual behavior, social behavior; drug abuse and toxicity. Prerequisite: Psyc. 2010, or senior standing and Psyc. 2000, or consent of instructor.

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. Behavior Pathology (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. 2010, or senior standing and Psyc. 2000, or consent of instructor. (Y)

4420. Developmental Psychology (4)

The study in depth of selected topics in developmental psychology, e.g., perception and cognition; affective, motivational and moral aspects of social and personal development. Prerequisite: Psyc. 2010, or senior standing and Psyc. 2000, or consent of instructor. (Y)

4430. Psychology in the Community (4)

Work in community agencies. Weekly seminars will relate psychological principles to problems encountered in practical work. Not applicable to the Psychology major. Credit/No Credit only. Prerequisites: Upper division standing in Psychology major and consent of instructor. One hr. lect., 6 hrs. act.

4450. Scientific Method in Psychology (4)

Selected topics in approach to scientific knowledge such as nature of science, role of theory, choice of variables, strengths and weaknesses of various research designs. Prerequisites: Psyc. 3100; or at least junior standing.

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. 2010, or senior standing and Psyc. 2000, or consent of instructor. (Y)

4620. Theories of Personality (4)

Undergraduate seminar: survey and analysis of some major theories of personality, including systematic analysis of theory construction. Prerequisite: Psych. 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. Four hrs. lect.

4740. Verbal Behavior and 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. 2010, or senior standing and Psyc. 2000, or consent of instructor.

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.

* Although courses in the 4800-4805 series may be repeated for unit credit, two different courses are required for the psychology major.

4805. Comparative Psychology Laboratory (2)

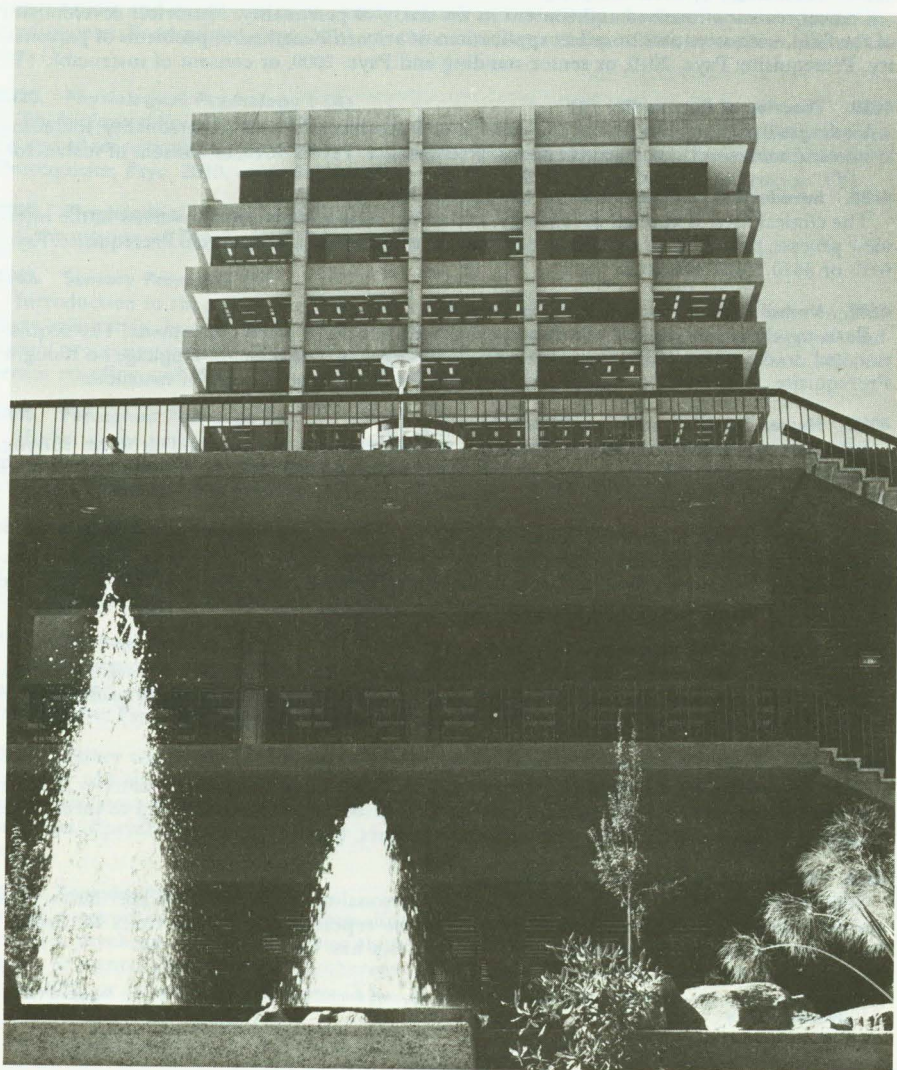
Selected experiments on social organization, communication, perception, activity patterns, learning and behavioral development in animals (insects, fish, reptiles, birds, mammals). Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.* Prerequisites: Psyc. 3100; and Psyc. 4310 or 4350. Six hrs. lab.

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 and consent of instructor.

4900. Independent Study (1-4)**4920, 4999. Directed Group Study (1-4)**

* Although courses in the 4800-4805 series may be repeated for unit credit, two different courses are required for the psychology major.



PUBLIC ADMINISTRATION

(Department of Public Administration; School of Arts, Letters and Social Sciences)

Professors: Hilary G. Fry, Jong S. Jun

Assistant Professors: Carl J. Bellone, Ethan A. Singer (Chair)

Lecturers: Jacob H. Abers, Guy B. Adams, Stephen R. Blum, George F. Goerl, William J. Sheppard, Richard W. VrMeer

Master of Public Administration

GENERAL INFORMATION

CSUH offers a graduate program leading to the degree Master of Public Administration. The program is designed for graduate students preparing either for professional careers and positions of administrative leadership in public organizations, or for advanced doctoral studies in public administration, and, as well, for men and women in public service seeking to improve their understanding of the political, administrative, and social context of their work.

While contemporary processes, problems, and trends in public administration are an important part of the course of study, the program places primary emphasis upon preparing public administrators for the social needs of a post-industrial society. The curriculum expresses a strong humanistic emphasis in organization theory and behavior, organization development and change, and organization research. The emerging social function of public organizations (particularly as reflected in the role of the public administrator in public policy development, social change, and social problem solving) is stressed in the education of public administrators to meet the future needs of an ever-changing technological, urban society.

GENERAL INFORMATION AND PROGRAM PERSPECTIVE

The Department of Public Administration offers a program of study leading to the degree of Master of Public Administration. Options are available in both professional and academic areas. They are designed to assist full and part-time students in preparing either for professional careers and positions of administrative leadership in public and quasi-public organizations, or for advanced doctoral studies in public administration, or teaching positions in the community colleges.

This program proceeds on several assumptions: that many pressing problems of our society must be dealt with through agencies of government and these public agencies must be staffed by well-prepared public administrators; that public agencies should be more oriented to the public interest and be more client-centered than is generally the case at present; that public organizations should be fulfilling and humanistically oriented, rather than bureaucratically oppressive and deadening to the human spirit, and should encourage personal contribution and growth, rather than protective behavior geared to personal survival; that public agencies should promote a critical, reflexive consciousness in public administrators focused on current assumptions girding administrative practice and on problems of the future. The Department strives to expand the meaning of public administration to include voluntary and community organization. To assist public organizations in formulating and meeting their goals, emphasis is placed upon developing a wide variety of human organizational realities to meet more effectively current and newly identified human needs and to serve the public interest. It appears that as society becomes more complex and the times more turbulent, governments do not diminish but grow in complexity and intensify in capacity for domination, with obvious threat to human freedom. We believe this threat is best met by humanizing governments, by strengthening their capacities for intelligent policy analysis and effective action on behalf of the public interest, through encouraging in public administrators a welcoming attitude toward learning, creativity and innovation, and by fostering a propensity for mature social change.

REQUIREMENTS FOR THE DEGREE

Admission to the Department

1. The M.P.A. degree program is open to graduates 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 2.5 (4.0 basis). Applicants with less than the minimum grade point average may petition for special consideration in gaining admission to the Department. Successful experience in positions of administrative leadership will be considered in weighing this factor. Students with a marginal grade point average or weak letters of recommendation may be required to take the Graduate Record Examination as an additional criterion for evaluating the student's potential to successfully complete the requirements for the degree.

2. 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 be filed together with the form for entry into the degree program.

Student Standing and Progress Toward the Degree

There are three different categories of student status which students go through during progress toward the degree: Conditionally Classified Graduate Student, Classified Graduate Student, and Advancement to Candidacy.

1. Students achieve status as Conditionally Classified Graduate Students when they have:
 - a. submitted to the Admissions Office of the University two copies of their transcripts of all previous college work (one set will be sent to the department office);
 - b. submitted to the department at least two letters of recommendation from academicians under whom they have studied, or from persons in positions of administrative leadership under whom they have worked;
 - c. been admitted to the M.P.A. degree program;
 - d. taken and submitted the scores of the Graduate Record Examination, when requested.
2. Students achieve status as Classified Graduate Students when they have:
 - a. achieved status as Conditionally Classified;
 - b. satisfactorily completed prerequisites to the M.P.A. degree program.
3. Upon having been admitted to the M.P.A. Program as a Classified Graduate Student, and having earned a grade point average of 3.0 or better in all work taken at Hayward and toward the M.P.A. degree, and upon satisfactorily completing the core requirements, a student will be qualified for advancement to candidacy for the M.P.A. degree.

Students who fail to maintain a 3.0 average in their prerequisite and graduate courses for two or more consecutive quarters will be academically disqualified from the University.

Prerequisites:

As prerequisites to the program students must satisfactorily complete two prerequisite courses: Public Administration 4800, The Study of Public Administration, and Public Administration 4830, Organizational Theory and Human Behavior. These prerequisites should be taken before attempting the core graduate courses. Since 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. Students who have not had an undergraduate course in statistics or in tests and measurements may find it necessary to take a basic course in statistics before attempting the organizational research sequence. For this purpose Statistics 1100 is recommended.

Program Requirements

1. The program requires completion of 45 quarter units, distributed between core graduate courses, graduate or upper-division courses in an option area, and synthesis, organizational research, comprehensive examination, special project, and/or thesis as prescribed below. Before attempting work in an option area, the student must have achieved Classified Graduate standing.

2. Program requirements for the degree are:

- a. Core requirements: Pu. Ad. 6805, 6811, 6812.
- b. Option Area: 20 to 25 units in one of the following option areas:

Option 1: Public Administration: Academic Emphasis

Option core: Two of the following: Pu. Ad. 6806, 6814, 6870.

Option electives: 16-21 units of any electives selected with academic adviser. Students selecting to culminate the program with either a Special Project or Thesis are required to take 16 units of electives; students electing to take the Comprehensive Examination must complete a total of 21 units of electives.

Option 2: Public Policy Development

Option core: Pu.Ad. 6806 and either 6807 or 6809

Option electives: Select 12-17 units of electives from Pu.Ad. 6804, 6807, 6809, 6830, 6840, 6842, 6866, 6864, 6850, 6851, 6870, 6874, 6880, 6882, 6883, and 6884. Additional elective courses may be substituted with consent of academic adviser. Students selecting to culminate the program with either a Special Project or Thesis are required to take 12 units of electives; students electing to take the Comprehensive Examination must complete a total of 17 units of electives.

Option 3: Public Management

Option core: Pu.Ad. 6850 or 6851; and Pu.Ad. 6840 or 6842; and Pu.Ad. 6828.

Option electives: Select 12 units of electives from Pu.Ad. 6805, 6807, 6808, 6809, 6814, 6830, 6840, 6842, 6850, 6851, 6854, 6864, 6865, 6866, 6867, 6870, 6872, 6880, 6883, 6884, and 6893.

Option 4: Voluntary and Community Organization

Option core: Pu.Ad. 6883 or 6884; and Pu.Ad. 6885, and Pu.Ad. 6886.

Option electives: Select 12 units of electives from Pu.Ad. 6806, 6807, 6808, 6809, 6814, 6828, 6830, 6840, 6842, 6850, 6851, 6864, and 6893.

c. Synthesis, Comprehensive Examination, Special Project and/or Thesis.

Plan I: Pu.Ad. 6891. Graduate Seminar Organizational Research I (4), and Pu.Ad. 6899. MPA Special Project (5).

or

Plan II: Pu.Ad. 6891. Graduate Seminar Organizational Research I (4), and Pu.Ad. 6910. Thesis (5).

or

Plan III: Pu.Ad. 6891. Graduate Seminar Organizational Research I (4), and Comprehensive Examination. (Students electing to take the Comprehensive Examination must take an additional 5 units of course work in the elective area of their chosen option.)

It is recognized that educational needs cannot always be met through established catalog courses. In these instances the student may utilize Independent Study. However, no more than 4 units of Independent Study may be applied toward the degree and each Independent Study course may not exceed 2 units.

Students accumulating more than 8 units of work graded Incomplete may not register for courses applicable to the degree until the Incomplete grades are removed.

Students electing Plan III as the final requirement for the degree must successfully pass a comprehensive examination. The examination includes the subjects of the prerequisite courses, the core courses, and the student option area. When the candidate has all required course work either completed or in progress, he should arrange with his academic adviser for taking the examination.

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. CSUH-wide requirements provide a stipulation that all units included in a program for a master's degree must be completed within seven years and that at least 32 of the total units must be in residence at Cal-State, Hayward.

UNDERGRADUATE COURSES**4800. The Study of Public Administration (4)**

Theories and conceptual issues in the study of public administration; environments of public institutions; pro-active problem-solving; client orientation; values and institutional change; policy and public interest; and the future of public administration. (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 goal-setting and organizational effectiveness. Prerequisite for the MPA program. (A)

4900. Independent Study (1-2)**4920-4999. Directed Group Study (1-4)****GRADUATE COURSES****6804. Selected Issues in Public Policy Development (4)**

In-depth examination of public policy issues from economic, political, sociological, and administrative perspectives and development of strategies for solution. Issues will reflect the interests of students. Prerequisite: Pu.Ad. 4800. (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: Pu.Ad. 4800. (Y)

6806. Seminar Policy Development for Alternative Futures (4)

Theory and methods of forecasting alternative futures; development of public policy with emphasis upon the administrative responsibility, humanistic goals, social indicators and policy research. Prerequisite: Pu.Ad. 4800. (Y)

6807. Seminar in Social Policy Planning (4)

Meaning and purposes on long-range policy planning; social indicators; identifying policy alternatives; environmental and social-psychological aspects of planning; developing institutional capabilities and planning resources. Prerequisite: Pu.Ad. 4800. (Y)

6808. Seminar in Politics and Ethics of Administration (4)

The conflict between the politics of administration and the high ethical standards expected of public servants pursuing the public interest. Prerequisite: Pu.Ad. 4800. (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: Pu.Ad. 4800. (Y)

6811. Social Reality and Human Organizations (4)

Phenomenological approach to the understanding of human organizational realities; subjective, intersubjective, contextual, historical influences; organizational socialization and personality growth, personal and organizational value development, and human effectiveness. Prerequisite: Pu.Ad. 4830. (Y)

6812. Alternative Realities and Changing Human Organizations (4)

Examination of organizational change as social change; theoretical components of change; humanistic approaches to changing human organizations; developing alternative organizational realities. Prerequisite: Pu.Ad. 4830 and Pu.Ad. 6811. (Y)

6814. Seminar in Critical Theory and Radical, Reflexive Public Administration (4)

Developing critical, reflexive capabilities in public organizations; transforming administrative presuppositions; historical-contextual conjunctions of theory and praxis; knowledge and interest; critical theories and administrative action. Prerequisite: Pu.Ad. 4800, Pu.Ad. 4830, Pu.Ad. 6811, Pu.Ad. 6812 and consent of instructor. (Y)

6828. Quantitative Analysis in the Public Sector (4)

Uses and methods of quantitative analysis in the public sector. Computer analysis in public management. Emphasis on application to organization and policy research. Prerequisite: Pu.Ad. 4800. (Y)

6830. Public Management Analysis (4)

Systems analysis and decision-making techniques as management tools in public management. PERT, cost-benefit analysis, cost effectiveness. Prerequisites: Pu.Ad. 4800 and Pu.Ad. 6828. (Y)

6840. Graduate 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. Prerequisites: Pu.Ad. 4800; Econ. 2302. (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, policy-making and management instruments; executive-legislative relationships. Prerequisite: Pu.Ad. 4800. (F, Sp)

6850. Public Personnel Systems (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: Pu.Ad. 4800. (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 and functions; career planning and development; manpower planning; training; and alternative work patterns. Prerequisites: Pu.Ad. 4800 and Pu.Ad. 4830. (Y)

6854. Graduate Seminar Public Labor Relations (4)

History and present status of public labor relations; changing concepts and their implications for existing institutions, processes and values in public personnel systems; current issues and forces in public labor relations. Prerequisite: Pu.Ad. 4800. (Y)

6864. Federalism and Intergovernmental Relations (4)

Dynamics of relationships among federal, state and local governments; changes in concepts, institutional relationships and coordination; program development and intergovernmental administration. Prerequisite: Pu.Ad. 4800. (Y)

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: Pu.Ad. 4800. (Y)

6866. 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: Pu.Ad. 4800. (Y)

6867. Politics and Planning in the Urban Region (4)

Planning and decision-making in urban regions; individual and institutional interests and roles; basic concepts and techniques of the urban planning process. Prerequisite: Pu.Ad. 4800. (Y)

6870. Comparative Studies in Public Administration (4)

Comparative and methodological inquiry in study of public administration; impact of changing world conditions on administrative processes; domestic and cross-national public policy-making approaches; cross-cultural training and organizational change. Prerequisite: Pu.Ad. 4800. (Y)

6872. Administration of Metropolitan Government (4)

Examination of domestic and foreign experience; emphasizing theories of local government, division of metropolitan political and governmental powers, metropolitan problem-solving abroad, and domestic approaches. Prerequisite: Pu.Ad. 4800. (Y)

6874. Graduate Seminar Development Administration (4)

The theory and processes of development; the administrative obstacles to development; the role of administration in formulating and implementing development goals; planning; institution-building; development of competent personnel; strategy for development; politics of external assistance. Prerequisite: Pu.Ad. 4800. (Y)

6880. Graduate Seminar 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. Prerequisite: Pu.Ad. 4800. May be repeated for unit credit. (A)

6882. Governmental Health Services Administration (4)

An inquiry into the broadening concept of health and the increasing role which different levels of government are playing in the field. Prerequisite: Pu.Ad. 4800. (Y)

6883. Voluntarism and Public Policy Development (4)

Voluntarism in developing awareness of policy issues; consensus building and resource mobilization; community participation and policy inputs. Community controlled organizations and client-centered social problem solving. Prerequisite: Pu.Ad. 4800. (Y)

6884. Networks of Community Influences (4)

Investigation, identification and analysis of urban networks of influence; implication for community action strategies for social change; examination of overlapping memberships, competition and cooperation in influence networks. Prerequisite: Pu.Ad. 4800. (Y)

6885. Emerging Organizational Forms in the Public Sector (4)

Critical examination of the concept of organizing around the dynamics of voluntary effort; analysis of such forms of organizing as participatory management, consensual decision-making, and self-help groups. Prerequisite: Pu.Ad. 4830. (Y)

6886. Selected Topics in Voluntarism and Community Development (4)

Examination of continuing issues such as economics and grantsmanship; and/or substantive policy issues such as health or housing. Topics will vary depending on student interest. Prerequisite: Pu.Ad. 4800 (Y)

6891. Graduate Seminar Organizational Research I (4)

Research theory and methodology in the social sciences; types of research; and construction of individual research design. Prerequisites: Classified standing; completion of core seminars, and consent of instructor. (A)

6893. Internship in Public Administration (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. Prerequisites: Pu.Ad. 4800, Pu.Ad. 4830. (A)

6899. MPA Special Project (5)

Research on approved topic. Execution of research design; collection and analysis of data; interpretation of findings; writing project report. Required of Public Administration majors who do not elect thesis or comprehensive examination. Prerequisites: Classified Status, Advancement to Candidacy, and completion of Pu.Ad. 6891.

6900. Independent Study (1-2)**6910. Thesis (5)**

Prerequisites: Candidacy, completion of core seminars, and consent of instructor. (A)

6920-6999. Directed Group Study (1-4)

RECREATION

(Department of Recreation, School of Education)

Associate Professor: John A. Montgomery

Assistant Professor: Susan E. Sunderland (Chair)

Lecturers: Stuart C. McCormick, Nancy E. Nevins, Donald T. Sawyer

The Department of Recreation offers courses leading to the Bachelor of Science degree in Recreation. The purposes of the program are to provide a series of educational experiences which develop understandings about recreational behavior, and the social institutions through which such behavior is expressed; to provide a sound undergraduate education for students who will pursue advanced degrees in graduate schools; and to provide the basic educational preparation for graduates who will seek careers in a wide variety of leisure-service agencies at the local, regional, state, and national levels.

The Recreation Major Leading to a B.S. Degree

Students pursuing this degree must plan their program with a recreation adviser to assure proper selection of courses.

Requirements for the degree are as follows:

- I. GENERAL EDUCATION. Complete General Education requirements as listed in this Catalog.
- II. MAJOR REQUIREMENTS.

	<i>Units</i>
A. Rec. 1000, 2200, 2500, 3000, 3700, 3800, 4000, 4890, 4910.....	37-41
B. Select 12-13 units from the following: Rec. 4100, 4200, 4300, 4600, 4700, 4800, 4810.....	12-13
C. Psych. 2000 and Soc. 2000	9
D. Upper division courses in Anthropology, Biological Sciences, Business Administration, Economics, Educational Psychology, Geography, Health Sciences, History, Political Science, Psychology, Public Administration, Sociology, or Teacher Education (selected from an approved list)	12
E. Performing arts and activities courses in two or more of the following fields: Art, Drama, Mass Communication, Music, Physical Education....	12
F. One course in communicative skills after student has attained upper division status in English, Mass Communication, Speech (selected from an approved list)	3-5
Total	85-92
- III. RECOMMENDED COURSES
 - A. One course in ecology (selected from an approved list)
 - B. One approved course in minority studies (from an approved list)

COURSES

1000. Nature and Scope of Recreation and Leisure Studies (4)

The importance of leisure, play and recreation in American Society. The organizational patterns in leisure services. (A)

1920-1999. Directed Group Study (1-4)

2200. Programming and Leadership in Recreation and Leisure Activities (4)

Analysis of the recreation program including the range of activities, factors which influence the selection of activities, and the planning of organized activities. The techniques and application of leadership styles for conducting recreation activities. Planning and conducting programs for selected community groups. Prerequisite: Rec. 1000. (F, W)

2500. Program Fieldwork and Observations (4)

Field experiences in leisure service agencies. Supervision of students by agency and university personnel. Observations of programs in representative leisure service agencies. A mini-



imum of fifty hours of field experiences and five observations. Prerequisite: Rec. 1000. (W)

3000. Philosophy of Leisure Studies (4)

Analysis of the roots of current practices, theories and philosophies in the fields of leisure, recreation and human services. Development of one's own philosophy. Prerequisite: Rec. 1000; U.S. History recommended. (F, Sp)

3700. Community Organizations in the Urban Setting (4)

Community factors which influence the provision of leisure and human services. Interrelationships of recreation and related agencies at the neighborhood and community level; study of community councils, commissions, and inter-agency cooperation. Prerequisite: Rec. 1000; introductory courses in sociology and psychology recommended. (W, Sp)

3800. Leisure Services and Special Groups (4)

The provision of leisure services and recreation programs for special groups such as preschoolers, teenagers, senior citizens, girls and women, delinquents, minorities, handicapped, and the economically deprived. Prerequisites: Rec. 1000, 2500, 3000. (W, Sp)

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, Sp)

4100. Selected Topics in Leisure Studies (4)

Selected trends and problems in leisure studies with emphasis on the influence of changing leisure patterns on contemporary society. May be repeated once for credit. Prerequisites: Rec. 1000, 2200, 2500, 3000. (Su)

4200. Leisure and Social Policy (4)

The implications of existing and proposed local, state and federal social legislation for community leisure services. The role of recreation agencies in the delivery of community human services. Prerequisites: Rec. 1000, 2200, 2500, 3000, 3700, 3800. (W)

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. Prerequisite: Rec. 4000. (F)

4600. Recreation in Institutional Settings (4)

The recreational needs and behavior of the aged and the handicapped in various therapeutic, correctional and custodial settings. Relationships of recreation and rehabilitation. Prerequisite: Rec. 3800. (W)

4700. Utilization of Regional Resources for Leisure (4)

Recreation provided by special district, state, and federal governments. Involvement of various agencies and bureaus. The preparation and significance of grants. Problems of division of responsibilities and allocation of resources. Prerequisite: Rec. 3700. (Sp)

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. Prerequisites: Rec. 1000, 2200, 2500, 3000. (W)

4810. Leadership Evaluation (1)

Evaluative techniques and procedures for program leaders. Senior students will assist in supervision of lower division students enrolled in Rec. 2500. Prerequisites: Rec. 1000, 2200, 2500, 3000, 4000, senior standing, and consent of instructor.

4890. Internship Placement Studies (1)

Directed individual study of professional practices in selected recreation and park agencies. Open only to students who will take Rec. 4910 during the following quarter. Prerequisite: a minimum grade point average of 2.0 overall and in the major. (A)

4900. Independent Study (1-4)

4910. Recreation and Leisure Studies Internship (8 or 12)

Field experience in a recreation agency. Supervision by agency and university personnel. Minimum field experience of 250 hours for ten week quarter. (If student desires to complete a 40 hour per week internship, he or she may receive 12 units of credit.) Prerequisites: Rec. 2200, 3000, 3500, 3700, 4890, and a minimum grade point average of 2.0 overall and in the major. (A)

4920-4999. Directed Group Study (1-4)

5900. Independent Study (1-4)

5920-5999. Directed Group Study (1-4)

RELIGIOUS STUDIES

(Religious Studies Committee, Interdisciplinary Programs)

Professors: John Baird, William W. Bartley, Lowell J. Bean, Frank Gilliard, Norman Goldstein, Edward J. Jay, Eugene Mayers, Morton Rosenbaum, Theodore Roszak (Chair)

Associate Professors: H. Glynn Custred, Jose Fernandez, William J. Langan

MINOR IN RELIGIOUS STUDIES

The minor conceives of Religious Studies in the broadest terms. It intends to introduce students to the varieties of religious experience as they may be approached by many disciplines: History, Philosophy, Anthropology, Sociology, Art, Literature, as well as by way of cross-cultural and comparative studies. Its goal is to provide students with a view of the religious life which is comprehensive, but at the same time governed by sound critical standards. To this end, it gives attention not only to the thought and history of the major world religions, but also to ancient, folk, and primitive forms of worship, to myth and ritual, and to such occult traditions as sorcery, witchcraft, alchemy, astrology, and magic. The minor also seeks to address itself to the analysis of popular cults and charismatic religious movements of the day. Recognizing that much of the religious interest of the time assumes the form of consciousness research and therapeutic innovations, the minor takes into its critical perspective courses dealing with the investigation of paranormal and mystical experience, with meditative disciplines, and with experimental psychotherapies (such as those developed by Transpersonal Psychology and the Human Potential movements). The object of such course work on the university campus is obviously not to endorse, advocate or proselytize, but rather to show how religious thought and psychospiritual experience may be responsibly examined and discriminately appreciated as an enduring and significant aspect of human culture.

The minor consists of 36 units, with a core of 12 units.

A. Core

12 units to be selected from the following courses:

- G.S. 1002. The Experience of God (4)
- Phil. 2400. Introduction to the Philosophy of Religion (4)
- Phil. 2411. Religions of the East (4)
- Phil. 2412. Religions of the West (4)
- Anth. 3850. Cross-Cultural Study of Religion (4)

B. Electives

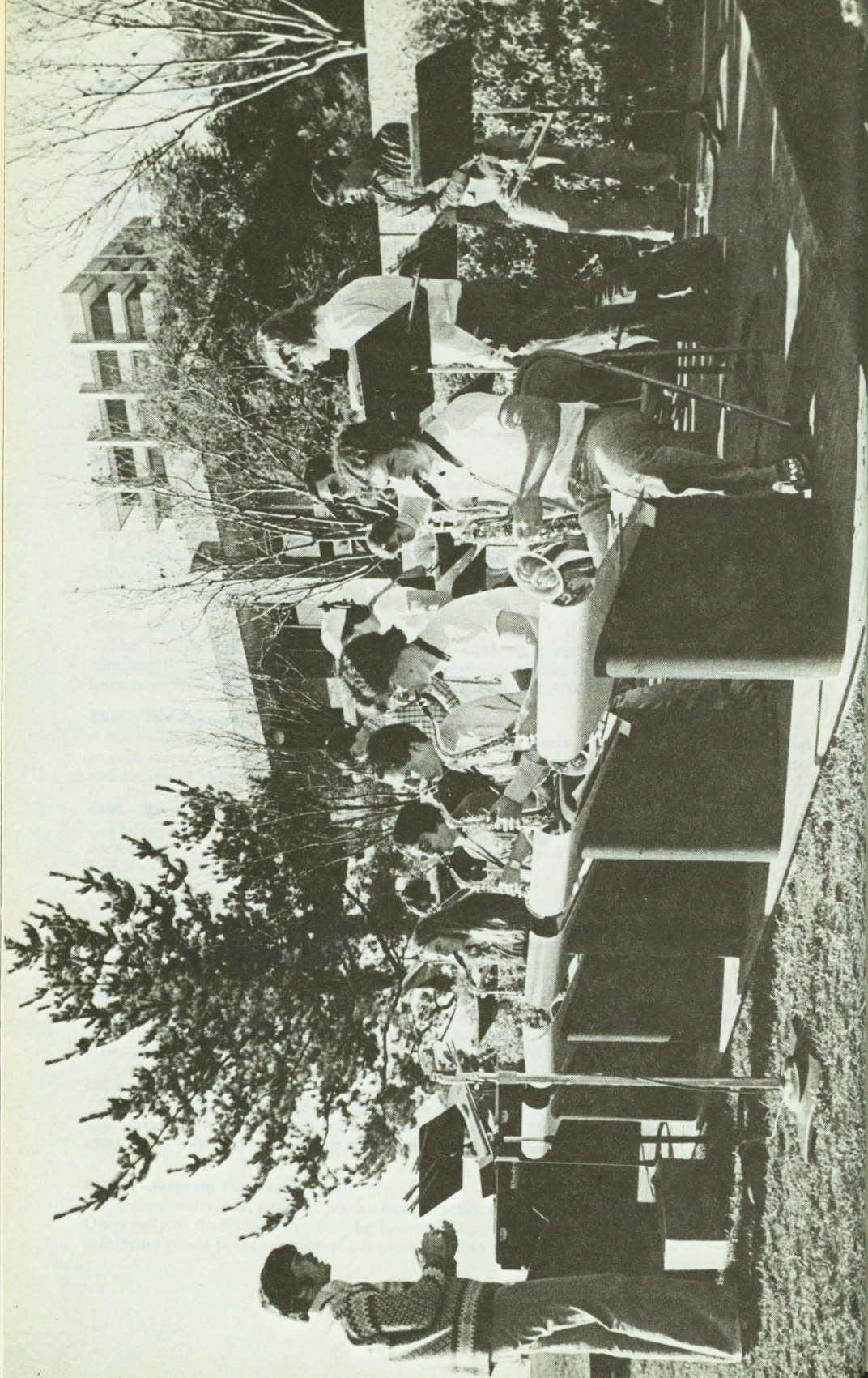
The remaining 24 units of the minor must be selected from the following courses in such a way that the student's 36 units of work as a whole are distributed among *at least* three departments, which may include General Studies and departments offering DGS courses approved and listed as Religious Studies by the Religious Studies Committee.

- Anth. 3870. The Mystical Tradition (4)
- Anth. 3880. Witchcraft and Sorcery (4)
- Anth. 3890. Shamanism (4)
- Engl. 4710. Biblical Literature (4)
- Engl. 4720. Mythology (4)
- Hist. 3114. History of Early Christianity (4)
- Hist. 3134. The Reformation (4)
- Hist. 3701. Rise and Spread of Islamic Civilization (4)
- Phil. 3401. Problems in the Philosophy of Religion (4)
- Phil. 3402. Contemporary Religious Thinkers (4)
- Phil. 3701. Classical Indian Philosophy (4)
- Phil. 3702. Later Indian Philosophy (4)
- Phil. 3703. Philosophy of China and Japan (4)
- Soc. 4420. Sociology of Religion (4)

At least 18 units must be in courses from departments other than the student's major.

For other General Studies courses and DGS courses approved as Religious Studies, students should check each quarter with the General Studies Office (MI 4041) where lists will be maintained of courses approved by the Religious Studies Committee.

Students who wish to enter the Religious Studies minor should request an adviser from the



General Studies secretary (MI 4041). A record of the student's progress in the minor will be kept on file in the General Studies Office. Building upon the base of the minor, it is possible to develop a Special Major in Religious Studies. See page 479 for a description of the Special Major program.



SCHOOL ADMINISTRATION AND SUPERVISION

(Department of School Administration and Supervision, School of Education)

Professor Emeritus: Arnold E. Joyal

Professors: Lewie W. Burnett, Jack Marsh, Wade N. Patterson, Jon S. Peters (Chair), Vera Pitts, William C. Shriner

Associate Professor: George Perazzo

Lecturers: Roger J. Schulte, David F. Shapiro

Graduate Adviser: Jon S. Peters

GENERAL INFORMATION

The School of Education offers graduate study leading to the Master of Science degree in Education with a specialization in School Administration and Supervision. A candidate for the degree must either hold an approved Administrative, Supervisory, or Administrative Services Credential or meet the credential requirements concurrently. The Department offers an approved program leading to the Administrative Services Credential under the Ryan Act (Education Code 44250 *et al.*). Students seeking the degree and/or the Administrative Services Credential must meet the general University requirements as well as the departmental requirements, stated elsewhere in this catalog, and which also appear in greater detail in the brochure "Requirements for the Master of Science Degree in Education with Specialization in School Administration and Supervision and for the Administrative Services Credential" available from the Department.

The Master of Science in Education Concentration in School Administration and Supervision

Admission to the Program

A candidate must be admitted to the University, consistent with requirements and procedures explained in the Catalog. Admission to the M.S. program and/or the Administrative Services Credential requires further:

1. A valid basic teaching credential or services credential (Pupil Personnel Services)
2. Teaching or services (PPS) experience (a minimum of one year for entry and three years for exit)
3. 3.0 G.P.A. on all post-baccalaureate work ("reasonable" exceptions can be made, but an overall 3.0 post-baccalaureate is required for the master's and is necessary before advancement to candidacy)

Requirements for the Degree

1. A bachelor's degree from an approved institution and such other requirements as the University sets.
2. Completion of course work, field work, and other requirements for the Administrative Services Credential. (These requirements may be met as a part of the program for the degree.)
3. A minimum of 45 quarter units of approved work, at least 32 of which must be in residence, and all completed within a seven-year period.
4. A grade-point average of 3.0 or better in:
 - a. all post-baccalaureate units
 - b. all post-baccalaureate units at CSUH
 - c. all 45 quarter units offered as satisfying the requirements of the degree program.

Requirements for the Credential

1. Three years teaching or services experiences under a valid basic credential
2. Completion of all required course work and field work
3. 3.0 G.P.A. in the credential program

Advancement to Candidacy

Advancement to candidacy is done by the Department and is based on:

1. Recommendations from the Credential and Degree Committee
 2. Completion of at least three courses in the Program at the University with a grade point average of 3.0 or better
 3. Satisfactory recommendation from individuals listed on the *Personal Data Statement*
- Advancement to candidacy must precede enrollment in Field Experiences or in Thesis.

Curricular Requirements

The established pattern of required and approved courses is designed to meet both credential and degree requirements. If a student already has the credential, he or she will take the degree requirements listed below and additional courses to be arranged with the adviser to substitute for Field Experiences.

Degree and Credential Requirements

	<i>Units</i>
S.A.S. 6000. Leadership and School Organization	4
S.A.S. 6300. Foundations of Curriculum Development	4
S.A.S. 6410. Supervision and Curriculum Change.....	4
S.A.S. 6550. The Public School Principalship	4
S.A.S. 6801, 6802, 6803. Supervised Field Experiences	6
S.A.S. 6600. Business and Legal Aspects of School Administration <i>or (with Adviser's consent)</i>	
S.A.S. 6660. Problems of School Law, <i>or</i>	
S.A.S. 6670. School Finance	4
S.A.S. 6020. Research in Education.....	4
Approved Electives	9-12
S.A.S. 6910. Thesis	3-6
<i>or</i>	
S.A.S. 6899. Special Project	3-5
	45

Credential Requirements

	<i>Units</i>
S.A.S. 6000. Leadership and School Organization	4
S.A.S. 6300. Foundations of Curriculum Development	4
S.A.S. 6410. Supervision and Curriculum Change.....	4
S.A.S. 6550. The Public School Principalship	4
S.A.S. 6801, 6802, 6803. Supervised Field Experiences	6
S.A.S. 6600. Business and Legal Aspects of School Administration	4
<i>or (with Adviser's consent)</i>	
S.A.S. 6660. Problems of School Law, and	4
S.A.S. 6670. School Finance	4
	26-30

Candidates who have specialized in Reading Instruction (see Teacher Education) and who wish to obtain the Administrative Services Credential should consult with an adviser in the Department of School Administration and Supervision relative to requirements for the credential.

GRADUATE COURSES**6000. Leadership and School Organization (4)**

Leadership theories and practices in public schools. Legal, fiscal and administrative bases for school organizations. Organizational patterns in California schools. The relationship of local districts to county, state, and federal educational agencies. Behavioral aspects of school organization. Prerequisite: graduate standing and one year of teaching experience. (A)

6010. Seminar on Organizational Theory in Education (4)

Application of organizational theory to the Public School context, with emphasis on problems of innovation and change. (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. (A)

6025. Urban School Administration (4)

Practicum in leadership and school organization in urban areas—legal, fiscal, administrative and organizational. Identification of crucial factors and issues for school administrators. Prerequisites: graduate standing, S.A.S. 6000, or consent of instructor. (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. Current issues and trends. Prerequisite: S.A.S. 6000, and department approval. (F, W, Sp)

6410. Public School Supervision and Curriculum Change (4)

Seminar in research and review of the literature on current problems and practices of instructional supervision in the public schools; analysis of guidelines and procedures for organizing and conducting effective curriculum change programs in elementary and secondary schools. Prerequisite: S.A.S. 6000 and departmental approval. (F, W, Sp)

6450. Seminar in School Personnel Administration (4)

Issues and practices in school personnel administration, including selection, assignment, development, retention/dismissal; legal requirements, policy development and employer-employee relations. Prerequisites: S.A.S. 6000, S.A.S. 6410. (Y)

6550. The Public School Principalship (4)

Seminar on roles and duties of elementary and secondary school principals, including building and business management, public relations, instructional supervision, guidance services, extra-class activities, and professional growth. Evaluation of recent developments in organization and scheduling. Elementary and Secondary sections. Prerequisite: S.A.S. 6000 and department approval. (A)

6600. Business and Legal Aspects of School Administration (4)

Seminar on practices and problems of school finance, schoolhouse planning and construction, and business management. The legal and financial relationships of local school districts to county, state and federal agencies. Special attention to the provisions of the California Education Code. Prerequisite: S.A.S. 6000 and department approval. (Y)

6660. Problems of School Law (4)

Consideration of the legal bases of federal, state, county and local administrative levels. Major legal provisions of the California Education Code and related sources affecting the administration of public schools. Prerequisite: teaching experience and consent of instructor. (F, W, Sp)

6670. School Finance and Business Administration (4)

Principles, problems, and practices of educational finance and business management; state and local support; legal aspects of finance. Aspects of planning, financing, and constructing school buildings. Prerequisite: teacher experience and consent of instructor. (F, W)

464 / School Administration and Supervision**6680. Practicum in School Finance (4)**

The application of fiscal theory to current administrative practice. System approaches to planning, programming and evaluation. Prerequisites: S.A.S. 6600 or district fiscal experience. (Y)

6801, 6802, 6803. Supervised Field Experiences—Administration and Supervision I, II, III (2, 2, 2)

Administrative and supervisory experiences in general administration, curriculum, supervision, teacher personnel, pupil personnel, public relations. Student must enroll for three quarters. Prerequisite: completion of other credential requirements; approval by the department and the cooperating district. (A)

6825. Seminar in Field Problems (4)

The identification, analysis and solutions of problems in educational administration and supervision. Prerequisites: S.A.S. 6000, S.A.S. 6410. (Y)

6899. Special Project (2-5)

Supervised research on an approved topic. Required of candidates who do not do S.A.S. 6910 Thesis. Students may enroll for two or more units per term to a minimum total of three units and a maximum total of five units. Prerequisite: S.A.S. 6020. (A)

6900. Independent Study (1-4)**6910. Thesis (1-6)**

Supervised thesis. Students may enroll for one or more units per term to a minimum total of three units and a maximum total of six units. Prerequisite: S.A.S. 6020. (A)

6920-6999. Directed Group Study (1-4)**SOCIAL SCIENCE**

(Political Science Department; School of Arts, Letters and Social Sciences)

COURSE**3001. Social Science I (4)**

Introduction to the broad field of social and behavioral science. The subject fields; their common concerns and relationships; problems of method involved; culture and change; basic sources in social analysis. (Y)

SOCIOLOGY

(Department of Sociology; School of Arts, Letters and Social Sciences)

Professors Emeritus: Peter Geiser, William C. Lawton

Professors: A. K. Basu, Shirley Foster Hartley, Elizabeth D. Huttman, Norman R. Jackman, Richard F. Larson, Lorenzo H. Snow

Associate Professors: Richard G. Ames, Benjamin G. Carmichael, Robert C. Forthman, David B. Graeven, Terry Jones, Karl L. Schonborn, Basil J. Sherlock

Assistant Professors: Calvin E. Davis, Robert G. Dunn, Margaret-Mary Franz, Marc L. Petrowsky, Willem B. Van Groenou

Graduate Adviser: Shirley Foster Hartley

PURPOSES

CSUH 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 objective of the sociology option is to provide students with a liberal arts education or preprofessional preparation for those desiring admission to graduate study in sociology.

The primary objective of the social services option is preparation for beginning professional social work practice. Other goals of the option include preparation for graduate study in social work and enlightened citizen participation in social welfare problems of the community.

The Sociology Major Leading to a B.A. Degree

Requirements

- I. Complete the 76-unit requirement in general education required for B.A. and B.S. degrees. Students who complete this major may apply up to 9 units of Foreign Language or Statistics courses in satisfaction of the requirement in Basic Subjects; and up to 12 units of upper-division courses in supporting fields (see requirement III below) in satisfaction of appropriate area requirements in Humanities, Natural Sciences, Social Sciences, or elective, or upper-division general education; and/or up to 16 units of Foreign Language and Statistics courses in satisfaction of the requirement in upper-division general education; and/or further Statistics courses in satisfaction of the requirement in Natural Sciences; to a maximum total of 41 units.
- II. Courses in Sociology 43-55 units
 1. Lower Division 4 units
 - Soc. 2000. Introduction to Sociology (4)
 2. Upper Division 39-51 units
 - A. Soc. 3310. Current Sociological Theory (4)
 - B. Soc. 4111. Methods of Sociological Research I (4)
 - C. Soc. 4112. Methods of Sociological Research II (4)
 - D. Elect option (1) Sociology or Option (2) Social Services
 1. Sociology 24 units
 - At least 24 units from upper-division courses excluding Soc. 4121 and 4711
 2. Social Services 24 units
 - a. Soc. 3700. Introduction to Social Services (4)
 - b. Soc. 3710. Social Policy (4)
 - c. Soc. 4121. Field Practice (8)
(4 units, must be taken twice for credit)

- d. Soc. 4711. Practice Theory I(4)
(2 units, must be taken twice for credit)
- e. Soc. 4716. Social Work Theories and Methods.....(4)
- E. Completion of 15 units from upper-division sociology courses. Up to 12 units of upper-division statistics courses selected under advisement may be counted as sociology electives. Students taking a statistics sequence should substitute Stat. 1000 for Stat. 2120. (Students will receive University credit for Stat. 1000 or Stat. 2120, but not both.) The statistics sequence must include Stat. 3010. 15 units
- III. Courses in supporting fields..... 21-41 units
 - 1. Stat. 2120. Elements of Statistics in Sociology(5)
 - 2. Each student in the sociology major must successfully complete at least 12 units (8 units in one field and 4 units in another field) in upper-division courses approved by the adviser from among several related areas including anthropology, economics, geography, history, human development, mass communication, philosophy, political science, psychology, social science, and ethnic studies(12)
 - 3. Foreign Language(4-12)
The foreign language requirement may be met in one of the following ways:
 - A. By completing F.L. 1--3 or F.L. 1--6 with a grade of "C" or better or a grade of "credit."
 - B. By taking three sequential quarters or two sequential semesters of a modern foreign language at another accredited college or university with a grade of "C" or better in the last course of the sequence.
 - 4. See II-E above.....(0-12)

Unit Summary

Major: courses in Sociology	43-55
courses in supporting fields	21-41

Sociology Minor

A. Lower Division	9 units
Soc. 2000. Introduction to Sociology(4)	
Stat. 2120. Elements of Statistics in Sociology.....(5)	
B. Upper Division	12 units
Soc. 3310. Current Sociological Theory(4)	
Soc. 4111. Methods of Sociological Research I(4)	
Soc. 4112. Methods of Sociological Research II.....(4)	
C. Select 12 units from any other 3000- or 4000-level sociology course	12 units
Total.....	33 units

Sociology Option: Liberal Studies

Credential Track (path for students seeking provisional credential as undergraduates)
Two social science fields must be selected

- As first field:
Soc. 2000, 3310, 4111, 4112; three 4-unit upper-division Sociology electives; Stat. 2120.
- As second field:
Five 4-unit approved Sociology electives

Liberal Arts Track (Two social science fields must be selected)

Credential Track (path for students seeking credential after graduation)
Two social science fields must be selected

- As first field:
Soc. 2000, 3310, 4111, 4112; five 4-unit Sociology electives; Stat. 2120.

As second field:
Six 4-unit approved Sociology courses

The Master of Arts Degree in Sociology

GENERAL INFORMATION

The Department of Sociology offers graduate study leading to the degree of Master of Arts in Sociology with a thesis or nonthesis option. 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.

Requirements for the Master of Arts in Sociology

A. Admission to the Program (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 course work equivalent to that required in the lower- and upper-division core in Sociology at California State University, 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.

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 standing by submitting Graduate Record Examination scores (Aptitude Test—quantitative and verbal—and Advanced Placement Test in the field of the undergraduate major) at or above the 50 percentile.

B. Maintenance of Classified Standing

To maintain classified standing a grade point average of at least 3.0 must be achieved in all courses taken in the approved program, whether taken at California State University, 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 CSUH authorities. Disqualified students will not normally be considered for readmission to CSUH for at least one year after disqualification.

C. Advancement to Candidacy

A student who holds classified standing may be considered for advancement to candidacy for the Master's Degree when the student has:

1. Filed an approved program of study with the Department; and
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; and
3. Demonstrated a satisfactory reading knowledge of an approved foreign language; and
4. Been recommended for advancement to candidacy by the Department.

D. Curricular Requirements

Forty-five (45) quarter units of approved courses earned in graduate standing of which 32 quarter units must be completed in residence. Not more than 12 quarter units of upper-division work required to remove undergraduate deficiencies can be counted toward the 45 quarter units required for the degree.

THESIS OPTION

This option is recommended for students going on to a doctoral program in sociology or social welfare, or who are preparing for research positions.

	<i>Units</i>
1. Required of all students.....	20
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. 4610. Nonparametric Statistical Methods for the Social Sciences (4)	
2. Electives from seminars in Sociology.....	12
* Soc. 6400. Seminar in Population Studies and Ecology (4)	
* Soc. 6500. Seminar in Social Psychology (4)	
* Soc. 6600. Seminar in Social Organization (4)	
* Soc. 6700. Seminar in Social Policy (4)	
* Soc. 6745. Seminar in Deviant Behavior (4)	
* Soc. 6800. Topics Seminar (4)	
3. Electives chosen under advisement from upper-division courses and graduate seminars in Sociology, Statistics, or closely related fields.....	4
4. Soc. 6910. Thesis.....	9
Before a student may register for Soc. 6910, Thesis, the student must be advanced to candidacy and demonstrate a satisfactory reading knowledge of an approved foreign language by successfully completing one academic year of course-work in the language.	
Total.....	45

EXAMINATION OPTION

This option is designed for students specifically interested in junior college teaching. It is strong in course work. However, it does not offer the student independent practice in theoretical development and research applications as does the thesis option.

	<i>Units</i>
1. Required of all students.....	20
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. 4610. Nonparametric Statistical Methods for the Social Sciences (4)	
2. Electives from seminars in Sociology.....	12
* Soc. 6400. Seminar in Population Studies and Ecology (4)	
* Soc. 6500. Seminar in Social Psychology (4)	
* Soc. 6600. Seminar in Social Organization (4)	
* Soc. 6700. Seminar in Social Policy (4)	
* Soc. 6745. Seminar in Deviant Behavior (4)	
* Soc. 6800. Topics Seminar (4)	
3. Electives chosen under advisement from upper-division courses and graduate seminars in Sociology, Statistics, or closely related fields.....	13
4. Area Comprehensive Examination (in four areas)	
a. Theory	
b. Methods	
c. Substantive area (elected by candidate with departmental approval)	
d. Substantive area (elected by candidate with departmental approval)	
Before a student may take the Comprehensive Examination the student must be advanced to candidacy and demonstrate a satisfactory reading knowledge of an approved foreign language by successfully completing one academic year of coursework in the language. Failure to pass the examination twice results in dismissal from the program.	
Total.....	45

* These seminars may be taken twice for credit with a change in course content.

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.

UNDERGRADUATE COURSES

1920-1999. Directed Group Study (1-4)

2000. Introduction to Sociology (4)

Introductory analysis of (a) the structure and functioning of human groups and (b) interrelations between groups; changes in (a) and (b). (A)

2050. Social Problems (4)

Major social problems and issues in American life. (Sociology majors can take this course for University credit, but cannot use it to satisfy a major requirement.) (Y)

2200. Current Population Topics (4)

Designed to provide general, rather than technical understanding of selected current population trends on international, national, and local levels, such as population explosion, urban sprawl, and changing color composition of central cities. (Y)

2400. 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. Two hrs. lect./disc., 4 hrs. act. Prerequisite: Soc. 2000. (Y)

3100. 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. 2000. (Y)

3200. Introduction to 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. 2000. (Y)

3300. History of Social Thought (4)

Development of thought concerning human society from earliest times until the middle of the 19th century. Prerequisite: Soc. 2000. (Y)

3310. Current Sociological Theory (4)

Critical analysis of the works of leading sociological theoreticians from the middle of the 19th century to the present. Prerequisite: Soc. 2000. (Y)

3410. Sociology of the Family (4)

The family with respect to its institutional, organizational and interactional character. Comparative study and analysis. Prerequisite: Soc. 2000. (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. 2000. (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. Prerequisite: Soc. 2000.

3415. Sociology of the Afro-American Family (4)

Sociological analysis of the Black family, tracing its changing form from Africa to present day America. Interrelationship of social structure with the institutional and interactional character of the Black family. Prerequisite: Soc. 2000. (Y)

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. 2000.

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. 2000.

3430. Comparative Society (4)

Structure of the social organizations and institutions within the cultural contexts of selected societies. Comparative study of historical and current differences as related to ideological, technical and organizational processes. Prerequisite: Soc. 2000. (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. 2000. (A)

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. Prerequisite: Soc. 2000. (Y)

3700. Introduction to Social Services (4)

Issues regarding social service, policies and the delivery of human services. History of their development in the U.S.; designed to afford observation of agency structure, philosophy and service delivery. Prerequisite: Soc. 2000. (Y)

3710. Social Policy (4)

Policy affecting social services including influence of values on public policy, and impact of these policies as they affect minorities. Prerequisite: Soc. 2000. (Y)

3715. 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. 2000.

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. 2000. (Y)

3745. Social Deviance (4)

Formation and composition of various subcultures whose norms and values conflict with those of wider society. Prerequisite: Soc. 2000. (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, and social problems associated with misuse of alcohol, narcotics, and other drugs. Prerequisite: Soc. 2000. (Y)

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. 2000, Stat. 2120 or Stat. 1000 and 3010. (A)

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. (A)

4121. Field Practice (4)

Placement of students with suitable community agencies for supervised instruction. May be taken twice for unit credit. Enrollment restricted to credit/no credit. Prerequisites: senior standing; Soc. 3700 and consent of instructor. To be taken concurrently with Soc. 4711. (Y)

4420. 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. 2000. (Y)

4430. Sociology of Complex Organization (4)

Principal forms of complex social organizations; bureaucracy; ritual; symbolism; enclosure processes; associated pressure group phenomena; incidences of conflict; mass movements and population growth on complex organization. Prerequisite: Soc. 2000.

4440. Sociology of Industry and Technology (4)

Development of industry and technology from handicrafts to mass production. Implication for social solidarity and individual identity. Prerequisite: Soc. 2000. (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. 2000. (Y)

4455. Social Organization of the Black Community (4)

Structure and dynamics of social organizations and institutions within the subcultural context of the Black community. Distinctive forms of social organization developed by the Black people to meet the needs of its population. Prerequisite: Soc. 2000.

4460. Sociology of Occupations and Professions (4)

Comparative study of certain occupational and professional groups with emphasis on social significance of occupational choice and sociological factors related to choice. Prerequisite: Soc. 2000.

4470. 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. 2000. (Y)

4480. 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. 2000. (Y)

4500. Seminar in Small Groups (4)

Emergence and formation of small human groups. Basic properties, structures and functions, norm formation, intergroup relations, goal formation and leadership. Student participation in laboratory demonstrations of classic experimental studies. Prerequisites: Soc. 2000, 3500. (Y)

4510. Dynamics of Collective Behavior (4)

Phenomena of crowds, masses, riots, publics, fads, fashions, disasters and social movements. Processes by which nascent institutions are formed within old institutions are examined. Prerequisite: Soc. 2000. (Y)

4515. Social Change and Social Movements (4)

Recent reform, revolutionary and expressive social movements and their impact on social change. Changes in technology and environment that affect social change. Prerequisite: Soc. 2000. (Y)

4520. Sociology of Identity (4)

Theoretical trends involving social structure and accompanying processes of identity expression; contributions of Durkheim, Mannheim, Goffman, Marx. Interrelationships between identity and cultural and institutional models of man. Prerequisite: Soc. 2000. (Y)

4530. Political Sociology (4)

Political organization as an important environmental factor in the individual's life; human aspects of bureaucracy; responses to authority and control; participation and exclusion from communication and decision-making; morale and efficiency. Prerequisite: Soc. 2000.

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. (Y)

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. (Y)

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. 2000. (Y)

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. 2000. (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. 2000. (Y)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)****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 standing and consent of instructor. (F)

6112. Advanced Sociological Research Methods II (4)

Development of individual projects, illustrating study designs, application of scientific method in the collection, analysis and presentation of data at advanced levels. Two hrs. seminar; 4 hrs. lab. Prerequisites: classified standing; Soc. 6111. (W)

6311. Seminar in Sociological Theory I (4)

Major sociological theories of the late 19th and 20th centuries with particular reference to the writings of Durkheim, Mannheim, Simmel, Mead, Parsons, Merton, Homans, Goffman and others. Prerequisites: classified standing and consent of instructor. (F)

6312. Seminar in Sociological Theory II (4)

Coordination of current theories, examination of their epistemological and methodological foundations and their significance of empirical application. Major theoretical models in respect to their utility in selected areas of research. Prerequisites: classified standing; Soc. 6311. (W)

6400. Seminar in Population Studies and Ecology (4)

Advanced study of selected aspects of population growth, distribution and composition. Critical assessment of the theory and research in human ecology. Measurement techniques and problems in population and ecology. Two hrs. seminar; 4 hrs. lab. May be taken twice for unit credit with change in course content. Prerequisites: classified standing and consent of instructor. (Y)

6500. Seminar in Social Psychology (4)

Research designs and processes, measurement and analytical techniques in social psychology at advanced levels. May be taken twice for unit credit with change in course content. Prerequisites: classified standing and consent of instructor. (Y)

6600. Seminar in Social Organization (4)

Advanced study of the elementary forms of social structure, their processes and their changes; comparison of different structural forms. May be taken twice for unit credit with change in course content. Prerequisites: classified standing and consent of instructor. (Y)

6700. Seminar in Social Policy (4)

Advanced study of the distributive systems of complex social organization as related to the social services. Identification and analysis of major issues in the field in regard to the social objectives and cost of their attainment. May be taken twice for unit credit with change in course content. Prerequisites: classified standing and consent of instructor. (Y)

6745. Seminar in Deviant Behavior (4)

Analysis of selected problems in developing theories of deviant behavior. Questions of definitions and study design. Independent investigation of a specific problem in the field of deviant behavior. May be taken twice for unit credit with change in course content. Prerequisites: classified standing and consent of instructor. (Y)

6800. Topics Seminar (4)

Presentation of selected topics beyond regular courses. Subject will vary from time to time. May be taken twice for unit credit with change in course content. Prerequisites: classified standing and consent of instructor. (Y)

6900. Independent Study (4)**6910. Thesis (1-9)**

Research project selected and pursued under the general direction of the candidate's thesis chairperson. Prerequisites: approval of departmental adviser and advancement to candidacy. (A)

6920-6999. Directed Group Study (1-4)

SOUTH ASIA STUDIES

(South Asia Studies Committee; School of Arts, Letters and Social Sciences)

Professors: Glenn L. Glasow, Edward J. Jay, Joseph A. Pugliese, Anil K. Sarkar, Vincent Shaudys

Associate Professors: Peter J. Claus (Chair), Michael W. Dols, Daniel R. Graves, Joanne F. Loomba

Assistant Professor: Willem B. Van Groenou

MINOR IN SOUTH ASIA STUDIES

The Minor in South Asia Studies is designed to provide a broad background in the understanding of South Asian cultures (India, Pakistan, Bangladesh, and Sri Lanka) and at the same time provide the student with an opportunity to specialize in a traditional academic discipline. It involves grouping general education courses, free electives, and courses in the major in such a way as to provide an emphasis on South Asia.

The minor consists of 38 units, arranged in an integrated pattern, as approved by an adviser in South Asia Studies. The student's adviser must be selected from among the members of the Committee on South Asian Studies. The year-long course, in South Asian Cultures, (Asia 3011, -12, -13, see page 141) is the basic course in the program and is therefore required of all students in the minor.

A student desiring that a notation of completion of the Minor in South Asian Studies appear on his or her permanent record must apply to, and receive the certification of, the Chair of the South Asian Studies Committee at the time of his or her graduation check in his or her major department.

Required Courses

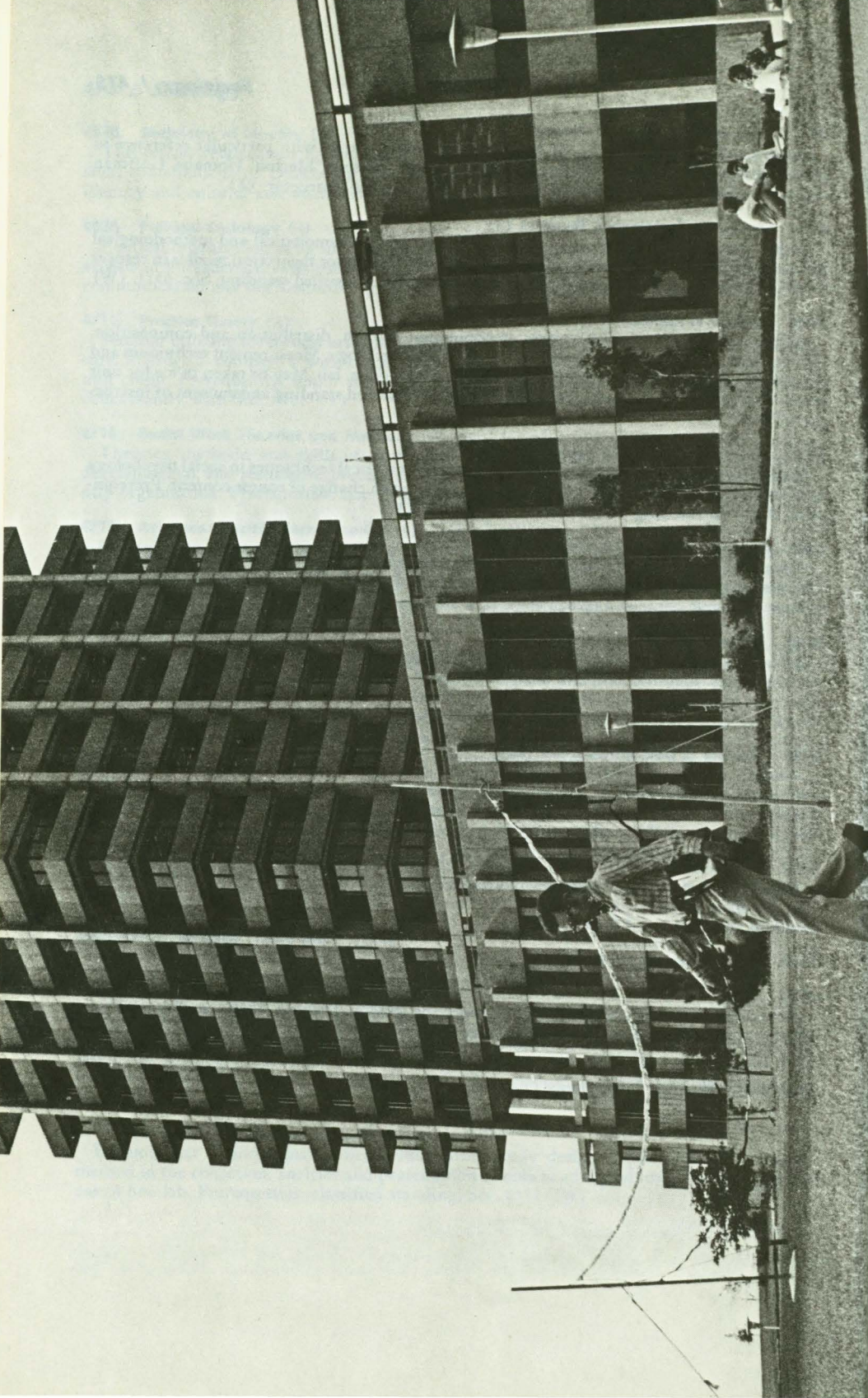
1. *General Course.* Twelve units of South Asian Cultures (Asia 3011, -12, -13)
2. *Courses in the Student's Major.* At least four units in courses on South Asia must be taken within the student's major field, but not more than 12 units in the major may be counted toward the minor. In cases where no courses on South Asia are offered within the student's major field, this requirement may be fulfilled by enrollment in courses in other fields, as listed below, subject to approval of the adviser in South Asian Studies.
3. *Other Courses.* The remaining units (14-22) must be taken in at least two fields outside of the student's major, chosen from among the following courses:

- Anth. 3560. India (4)
- Art 4050. Art of India (5)
- Geog. 3560. Geography of South Asia (4)
- Hist. 3701. Rise and Spread of Islamic Civilization: 622-1050 (4)
- Hist. 3702. Medieval Islamic History: 1050-1800 (4)
- P.E. 3204. Art Dances of Asia (3)
- Phil. 2411. Religions of the East (4)
- Phil. 3701. Classical Indian Philosophy (4)
- Phil. 3702. The Six Schools of Later Indian Philosophy (4)
- Phil. 3710. Comparative Themes in Eastern and Western Philosophy (4)
- Pol. Sci. 3241. Government and Politics on the Indian Subcontinent (4)

This list of courses will be increased as new courses related to South Asia are added to the curriculum.

Two to four units must be represented by a "special project" course or courses (independent or group study) in which the student undertakes a research paper or other systematic research under the supervision of an appropriate faculty member. This course may be taken outside the student's major or within it. If taken within the major, the units may constitute all or part of the minimum number of four required. If the course represents units in excess of the 12 allowed within the major, it will fulfill the "special project" requirement, but the units will not be added to the total number required in the minor.

At least 18 units must be in courses from departments other than the student's major.



Recommended Courses

In addition to the requirements set forth above, it is strongly recommended that a student complete at least one year of a South Asian language and enroll in as many additional courses as possible from the preceding list.

*Summary of the Program**Required Courses:*

Asia 3011, 3012, 3013	Units 12
<i>Other Courses:</i>	
In major field	4-12
In fields other than the major	14-22
Total	38

**SPECIAL MAJOR**

(Deans of Undergraduate and Graduate Studies)

Undergraduate Programs

The Special Major is intended to allow the student to pursue a course of study which does not duplicate significantly any existing major or option at CSUH. Such a major may lead to either a B.A. or B.S. degree. A brochure containing detailed information on the Special Major is available in the Office of Undergraduate Studies, AD 859.

Procedure for Implementing the Special Major

A student wishing to graduate with a special major must discuss the project with the Dean of Undergraduate Studies. Special majors are built around a central idea of academic significance which may lay the foundation for a profession or for advanced study, and which can usually be studied successfully only from the viewpoint of several disciplines. The major itself must be built upon courses already in the curriculum; otherwise, the University will not be able to afford the instruction costs. A limited number of courses taken at other institutions may be applied to the major. Some units of Independent Study can form part of the major, especially in the Senior year. Each Special Major must contain a substantial number of units completed at CSUH.

Students must determine what precise subject they wish to pursue. They may get hints from examining the catalogs of other colleges and universities. CSUH offers over 30 undergraduate majors; hundreds of other majors are offered at other schools. It is wise, too, to speak with faculty members and school deans about the nature of the Special Major before discussing the project with the Dean of Undergraduate Studies.

If the project is considered to have merit, the Dean of Undergraduate Studies will write a memorandum to the School Dean (s) whose departments are involved asking that a committee of faculty members be set up to complete plans for the major. When the proper form is filed by the Committee and the School (s), the Dean of Undergraduate Studies will implement the program. Modifications of a Special Major program require approval of the committee, school, and dean.

General Requirements for the Special Major (Undergraduate)

The student pursuing a degree in a special major must meet the following requirements:

1. Have at least 45 units to complete before graduation;
2. Complete the General Education Requirements of CSUH; courses fulfilling G.E. Requirements are not applicable to the major requirements;
3. Complete no fewer than 52 units and no more than 80 units in the major; 36 of these units must be at the upper-division level. Courses may be drawn from more than one department;
4. Complete all other graduation requirements of the University. For example, the student must complete at least 186 units for a B.A. degree; the student may be required to take as many as 198 units for a B.S. degree.

Graduate Programs

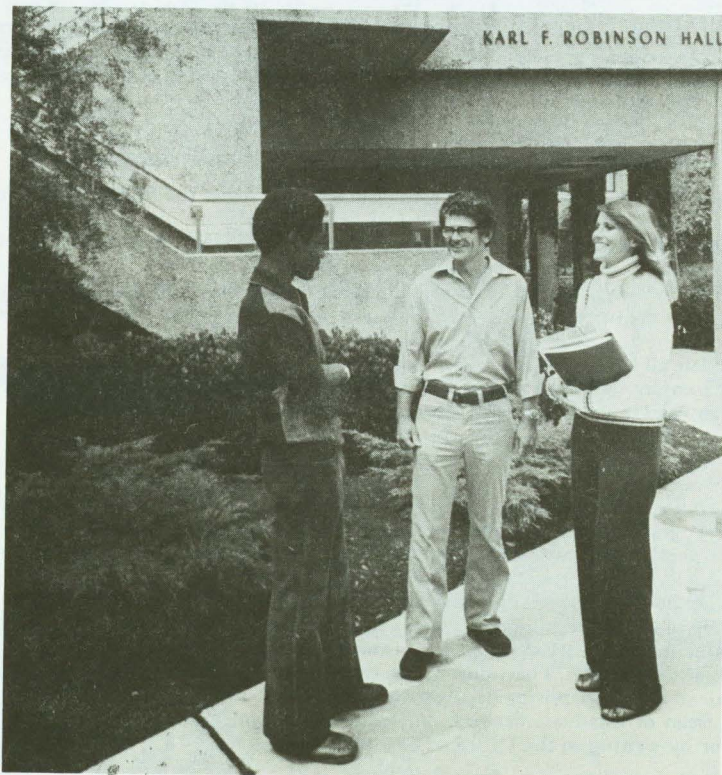
Students who wish to design a multidisciplinary graduate degree program may apply for admission to graduate study in the Special Major Program. Such applicants must meet the minimum criteria for admission to graduate study.

The Special Major program of studies should not be viewed as an alternative for applicants who have not qualified for study in one of the University's regular graduate degree programs. It is intended to be as demanding a course of study as in any of the regular programs.

Applicants must fill out a special application form for the Special Major as well as the University's regular form. They must obtain the consent of the Dean of Graduate Studies and of the chair of their supervising department. This process should be begun with an interview with the Dean of Graduate Studies. An appointment can be made by telephoning (415) 881-3124 or by writing to the Office of Graduate Studies.

The essential features of the graduate Special Major Program are given below:

1. The M.A. or M.S. Degree in a Special Major is restricted to students who meet admissions criteria as classified or conditionally classified students in a department with an existing graduate degree program, which will act as the student's supervising department.
2. Applicants for admission to a Special Major graduate degree program are required to fill out a special application form in addition to the regular admission form required of all applicants.
3. The applicant must be approved by the Dean of Graduate Studies and by the Chair of the supervising department.
4. Upon admission to a graduate program a graduate adviser will be assigned by the supervising department chair. The adviser will serve throughout the student's program. A Committee consisting of the adviser and at least two faculty members representative of the interdisciplinary nature of the student's objectives will be appointed by the supervising department chair in consultation with the student, the adviser, and involved departments. The Committee and the student will develop and recommend to the Graduate Dean a final program designed to achieve the student's objectives, not later than the end of the first quarter of registration.
5. The Special Major Program may not closely resemble an existing formal degree program but must be of such character that it cannot be fulfilled in an existing program. It must consist of catalog-listed courses in two or more departments.
6. No more than a total of 9 quarter units may be in supervised courses 6899, 6900, or 6910, or other S-25 courses.
7. The Special Major graduate degree is subject to all University requirements for the completion of a graduate degree program.
8. Special Major graduate students will be admitted to candidacy upon satisfactory completion of 22½ quarter units of work in the approved program.
9. The diploma given to Special Major M.A. or M.S. graduates will bear the designation SPECIAL MAJOR. The students transcript will bear the designation SPECIAL MAJOR and the title of the approved fields.



SPEECH

(Department of Speech and Drama; School of Arts, Letters and Social Sciences)

Professors: John E. Baird, Harold Barrett, John Cambus, John C. Hammerback (Chair), Robert C. Martin

Associate Professors: Daniel S. Prentice, Ralph H. Salgado, Virginia A. Willems

Assistant Professor: Jack A. Samosky

Graduate Adviser: Harold Barrett

The Speech Major Leading to a B.A. Degree

The baccalaureate major in speech is offered to the student interested in pursuing one or more of the following goals: (1) a liberal education; (2) experience, knowledge and training in areas important to concerns in business and industry, in law, in the ministry; (3) the teacher credential in secondary and elementary education; (4) preparation for graduate study.

Requirements are as follows:

- I. Complete the 76-unit requirement in General Education.
- II. Depending on the courses chosen, complete a minimum of 21 lower-division units; a minimum of 44 and a maximum of 54 upper-division units.
- III. Required courses:

Lower Division

- Speech 1000. Principles of Speech Communication (4)
- Speech 1004. Interpersonal Communication (4)
- Drama 2310. Interpretative Reading (4)
- Speech 2411. Argumentation and Debate (5)
- Speech 2485. Voice and Speech Improvement (4)

Upper Division

- Speech 3510. Public and Group Discussion (5)
- Speech 3515. Persuasion (4)
- Speech 4201. History of Rhetorical Theory and Practice I (4)
- Speech 4860. Symposium in Speech (4)

and one of the following courses:

- Speech 4500. Rhetorical Criticism (5)
- Speech 4600. Modern Rhetorical Theory (4)
- Speech 4810. Communication Theory (4)

- IV. Elective Courses (22-32 units from the following courses):

- Speech 1005. Parliamentary Procedure (3)
- Speech 2215. Introduction to Radio and Television (4)
- Speech 3412. Business and Professional Speech (4)
- Speech 3520. Advanced Studies in Interpersonal Communication (4)
- Speech 4183. Forensics Workshop (1-3)
- Speech 4202. History of Rhetorical Theory and Practice II (4)
- Speech 4203. History of Rhetorical Theory and Practice III (4)
- Drama 4310. Advanced Interpretative Reading (4)
- Speech 4350. Advanced Public Speaking (4)
- Speech 4450. Contemporary Public Address (4)
- Speech 4500. Rhetorical Criticism (5)
- Speech 4600. Modern Rhetorical Theory (4)
- Speech 4800. General Semantics (4)
- Speech 4810. Communication Theory (4)

- V. Forensics

Students who wish to prepare for positions in forensics and also to receive a B.A. degree in speech should include the following courses among their electives in speech: Speech 1005, Speech 4183, and either Speech 4350 or Drama 4310. These students should also take the following courses in related fields: Acct. 2210, Phil. 1001 and 2100, Pol. Sci. 3000, and Pu.Ad. 4800.

Unit Summary

Major: Courses in Speech.....	61-71
Courses in supporting fields (Drama 2310, 4310).....	4-8

The Speech Minor

Enroll in a program of at least 32 units in Speech, of which at least 19 must be in the upper division, to be selected in consultation with a minor adviser.

The following courses are required for the Speech Minor:

- Speech 1000. Principles of Speech Communication (4)
- Drama 2310. Interpretative Reading (4)
- Speech 2411. Argumentation and Debate (5)
- Speech 3510. Public and Group Discussion (5)

Speech Option: Liberal Studies**Credential Track**

(path for students seeking provisional credential as undergraduates)

Area IV E

- Drama 2310 (4 units)

Area V A

- Speech 1004 (4 units)
- Speech 3510 (5 units)
- Speech 3515 (4 units)
- Speech 4201 or 4500 or 4600 (4-5 units)

Liberal Arts Track**Credential Track**

(path for students seeking credential after graduation)

Area V A

- Speech 1004 (4 units)
- Drama 2310 (4 units)
- Speech 2411 (5 units)
- Speech 3510 (5 units)
- Speech 3515 (4 units)
- Speech 4201 or 4500 or 4600 (4-5 units)
- Speech electives (4-6 units)

Single Subject Waiver Program: English/Speech

The following program of courses, submitted by the Department of Speech and Drama, has been approved by the State Commission for Teacher Preparation and Licensing as a waiver program for the Single Subject English/Speech.

The Speech Major.....	65-75 units
English 1001, 3005, 3010, 3020, 4251	20 units
One of the following: Engl. 3750, 4411, 4412, 4832	4 units
One of the following: Engl. 4634, 4635, 4636, 4637	4 units
One of the following: Engl. 3691, 3692	4 units
One of the following: Engl. 4710, 4720, 4740	4 units
	101-111 units

The Master of Arts in Speech**GENERAL INFORMATION**

The Department of Speech and Drama offers graduate study leading to the Master of Arts degree in Speech with an option in Rhetoric and Public Address. The candidate must observe the general requirements for the Master of Arts degree stated in this catalog as well as specific

departmental requirements stated here and more fully in the *M.A. brochure* issued by the department (copies available upon request). The candidate also is responsible for the following:

1. consulting an adviser and planning a tentative program;
2. completing the prerequisites to the program plus the following requirements.

REQUIREMENTS FOR THE DEGREE**Admission Requirements****Classified Standing**

For admission with CLASSIFIED STANDING to the M.A. program in Speech, Rhetoric and Public Address Option, the student must: (1) make application to pursue a specific program of graduate study; (2) possess a baccalaureate degree from an accredited institution with a grade point average of at least 2.50 in all previous college work; and (3) have completed at least 24 upper-division units in speech with a grade point average of 3.00.

Conditionally Classified Standing

A student who holds a baccalaureate degree from an accredited institution but who does not meet other requirements named in (2) and (3), above, may, on recommendation of the graduate faculty in rhetoric and public address, be admitted with CONDITIONALLY CLASSIFIED STANDING. The status remains conditional until the student has demonstrated capability in preparatory coursework and has received recommendations of instructors.

Advancement to Candidacy

To advance to the status of CANDIDATE for the M.A. degree in Speech, Rhetoric and Public Address Option, the student must:

1. be a classified graduate student in good standing;
2. complete at least 12 units in graduate work in rhetoric and public address at CSUH with a grade point average of at least 3.0;
3. file with his or her adviser an approved study plan for completion of the degree program;
4. satisfactorily defend his or her thesis proposal or special project proposal, if he or she selects one of these options; and
5. show evidence of progress and ability to complete the program.

Curriculum Requirements

The program leading to the M.A. degree in Speech, Rhetoric and Public Address Option, requires completion, with grades of *A* or *B*, of at least 45 quarter units of credit from the courses listed below.

The work must be completed within seven calendar years after admission to the program. No more than twenty-two units may be from the 4000 level. At least 32 units must be completed in residence.

Examinations

- (1) Satisfactory achievement on comprehensive written and oral examinations will be required of students electing the course work and special project options (see Program Options below). For these comprehensive examinations, the student will be tested on rhetorical and communication theory, rhetorical criticism, public address, and, if elected by the student, a cognate field such as history, English, sociology, etc. The student need not have taken all the courses listed below, but material covered in these courses may be included in the written examinations. In each case, the student will be expected to defend his or her answers orally.

Rhetorical Theory and Communication Theory (History of Rhetorical Theory and Practice I, Modern Rhetorical Theory, Communication Theory, Seminar in Oral Interpretation, Seminar in Rhetorical Studies, Seminar in Group Discussion)

Rhetorical Criticism (History of Rhetorical Theory and Practice I, Rhetorical Criticism, Seminar in Rhetorical Studies, Ethics of Communication, Seminar in Broadcasting)

Public Address (History of Rhetorical Theory and Practice I, II, III, Modern American Public Address, Contemporary Public Address, Seminar in American Public Address)

- (2) Students electing Special Project (5 units) will substitute the oral examination over their project for the examination in either public address or rhetorical criticism described above.
- (3) Students electing the thesis option will sit for oral examination of the thesis proposal and a defense of the thesis at its completion.

Program Options: Course Work, Course Work–Special Project, Thesis

Three types of programs are available for the student's election after consultation with his or her adviser:

1. A student may elect a program made up entirely of a minimum of 45 hours of approved course work.
2. Upon approval of the Graduate Faculty in Speech, a student may elect Special Project (5 units); enrollment commits the student to production of a piece of work which is to follow prescribed forms; a permanent record is to be filed in the departmental office.
3. Upon approval of the Graduate Faculty in Speech, a student may elect the thesis program; he or she will carry out research on a specific topic in the field and will report, review, and file the results; he or she will be examined on the thesis (see 3., above); the thesis will carry nine units of credit.

Courses Required

- Speech 4500. Rhetorical Criticism (5 units)
 Speech 4600. Modern Rhetorical Theory (4 units)
 Speech 6000. Introduction to Graduate Study in Speech and Drama (4 units) (to be taken at earliest opportunity)
 Speech 6400. Seminar in Rhetorical Studies (4 units)

Elective Courses

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 adviser.

- Speech 4201, -2, -3. History of Rhetorical Theory and Practice I, II, III (4-4-4 units)
 Speech 4450. Contemporary Public Address (4 units)
 Speech 4810. Communication Theory (4 units)
 Speech 4860. Symposium in Speech and Drama (4 units)
 Speech 6100. Topics in Speech Communication (4)
 Speech 6200. Seminar in Oral Interpretation (4)
 Speech 6300. Seminar in Broadcasting (4 units)
 Speech 6455. Seminar in Speech and Drama Education (4 units)
 Speech 6500. Seminar in American Public Address (4 units)
 Speech 6510. Seminar in Group Discussion (4 units)
 Speech 6700. Ethics of Communication (4 units)
 Speech 6800. Seminar in Interpersonal Communication (4 units)
 Speech 6899. Special Project (5 units)
 Speech 6900. Independent Study (1-4 units)
 Speech 6910. Thesis (9 units)

UNDERGRADUATE COURSES

RHETORIC AND PUBLIC ADDRESS

1000. Principles of Speech Communication (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)

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)

2411. Argumentation and Debate (5)

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: Speech 1000, or consent of instructor. (F)

3412. Business and Professional Speech (4)

Designed to meet the needs of business management. Units in explanations, sales and policy speaking, small group dynamics and conference work. Prerequisite: Speech 1000, or consent of instructor. (Sp)

3510. Public and Group Discussion (5)

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. Study of small group dynamics. Prerequisite: Speech 1000, or consent of instructor. (Y)

3515. Persuasion (4)

The theory and practice of the principles of social psychology as applied to persuasion. Choice, arrangement, and adaptation of materials implementing this theory. Prerequisite: Speech 1000, or consent of instructor. (Y)

3520. Advanced Studies in Interpersonal Communication (4)

Study and in-class application of concepts and theories of communication in the interpersonal environment; analysis of verbal and nonverbal messages influencing dyadic interaction. (Y)

4183. Speech Workshop—Forensics (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 credit. (F, W, Sp)

4201. * History of Rhetorical Theory and Practice I (4)

Greek and Roman rhetoric and oratory: the teachings of significant scholars in rhetoric from Corax to Quintilian, and the outstanding speeches and speakers from Pericles to Cicero. (F)

4202. * History of Rhetorical Theory and Practice II (4)

British rhetoric and oratory: the teachings of significant scholars in rhetoric, especially Blair, Campbell, and Whately, and the outstanding speeches and speakers from Chatham to Churchill. (W)

4203. * History of Rhetorical Theory and Practice III (4)

American rhetoric and oratory: the teachings of significant scholars in rhetoric, and the outstanding speeches and speaking from Jonathan Edwards to Woodrow Wilson. (Sp)

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 requirement. Prerequisite: Speech 1000, or consent of instructor. (Sp)

4450. * Contemporary Public Address (4)

Investigations of the use of speechmaking in public affairs today. Students engage in analysis of contemporary speaking by representative figures in politics, education, religion, law and business. (Sp)

* Graduate credit by approval.

4500. * Rhetorical Criticism (5)

Study of ancient and modern theories of rhetorical criticism. Extensive practice in applying principles of criticism to public address, with emphasis on development of competence in analysis and refinement of judgment. Prerequisite: One of the following courses—Speech 3515, 4201, 4202, 4203, or 4450. (W)

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. Prerequisites: any one of Speech 4201, 4202, or 4203, or consent of the instructor. (Y)

GENERAL**1005. Parliamentary Procedure (3)**

A study stressing those principles of procedure which enable members and officers to function in a democratic society; constitutions, by-laws, and rules of order. (Y)

1920-1999. Directed Group Study (1-4)**2115. Introduction to Radio and Television (4)**

A course designed to improve understanding of these media; studying programming, elements of production, business management, aesthetics, history. (F)

2310. Interpretative Reading (4)

(See Drama 2310 for course description.)

2485. Voice and Speech Improvement (4)

A study of voice and articulation designed to improve the normal speaking voice through lecture, discussion and drill. (F,Sp)

4310. Advanced Interpretative Reading (4)

(See Drama 4310 for course description.)

4610. Speech/Drama in the Elementary Classroom (3)

Techniques and materials in oral language arts. Units in choral speaking, reporting, interpretative reading, puppetry, creative dramatics, formal drama, story telling, and recording. Designed for elementary teachers. (W)

4800. General Semantics (4)

A multi-disciplinary study of language as an important aspect of human behavior; impact of modes of language upon modes of thought. (Y)

4810. * Communication Theory (4)*

An introduction to models of oral communication and persuasion, and an examination of studies of oral discourse which those models illustrate. (Y)

4860. * Symposium in Speech (4)

A summary and synthesis, terminal undergraduate course intended to provide the departmental major with an opportunity to report on an individual research study or project the field of special interest. Prerequisite: senior standing. (Y)

4900. Independent Study (1-4)**4920-4999. Directed Group Study (1-4)****GRADUATE COURSES****6000. Introduction to Graduate Study in Speech and Drama (4)**

A study of research and bibliographical methodology, library materials, and methods of scholarly reporting in speech and drama. Bibliographical research and a scholarly research paper required. (F)

* Graduate credit by approval.

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 once for credit, with change in course content. Prerequisite: consent of instructor.

6200. Seminar in Oral Interpretation (4)

Critical examination of the interacting relationships of literature, interpreter, and audience in the oral performance of literature. Historical and contemporary theories, and trends in interpretation, with special emphasis on aesthetic, rhetorical, and dramatic dimensions. Prerequisites: Drama 2310 or consent of instructor.

6300. Seminar in Broadcasting (4)

Study of communication as it originates and as it is received through the broadcast mass media. Prerequisite: graduate standing. (F)

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. Prerequisite: Spch. 4201, or 4202, or 4203, or equivalents. (Sp)

6455. Seminar in Speech and Drama Education (4)

Analysis of the philosophical and theoretical bases of speech and drama pedagogy. Prerequisite: graduate standing. (W)

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. Prerequisite: Spch. 4203 or equivalent. (W)

6510. Seminar in Group Discussion (4)

Study of basic encounter groups, role playing and the interaction and dynamics of small groups as they bear on group discussion. Prerequisite: Spch. 3310 or equivalent; graduate standing. (Sp)

6700. Ethics of Communication (4)

An intensive study of the ethical dimensions of communication through the analysis of historical concepts and their application, problems imposed by law, liberties and limitations of the individual, and criteria for responsible judgment. (Sp)

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: Speech 1004 and 3520 or 4810; or consent of instructor.

6899. Special Project (5)

Production of a piece of work as partial fulfillment of terminal requirements in the graduate program. Permanent record to be filed in departmental office. Enrollment for one or more units per quarter. Prerequisites: Classified standing; approval of the departmental graduate faculty. (A)

6900. Independent Study (1-4)**6910. Thesis (9)****6920-6999. Directed Group Study (1-4)**

SPEECH PATHOLOGY AND AUDIOLOGY

(Department of Speech and Drama; School of Arts, Letters and Social Sciences)

Associate Professor: Robert A. Veder (Coordinator)

Assistant Professors: Rhoda L. Agin, William S. Rosenthal

The Speech Pathology and Audiology Major Leading to a B.S. Degree

The Bachelor of Science degree program 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 preprofessional training necessary for admission to graduate studies.

Requirements are as follows:

- I. Complete the 76-unit requirement in General Education
- II. Depending on the courses chosen, complete a minimum of 22 lower-division units; a minimum of 69 and a maximum of 75 upper-division units.
- III. Complete the following requirements in the major:

A. Required Courses:

1. Lower Division (22-23 units)

Psych. 2000. General Psychology I (5)
Psych. 2010. General Psychology II (4)
Stat. 1000. Elements of Probability and Statistics (5)

or

Stat. 1100. Elements of Descriptive and Inferential Statistics (4)
Biol. 1000. Principles of Biology (5)

and

Biol. 2061. Anatomy and Physiology (4)

or

Biol. 1000. Principles of Biology (5)

and

Biol. 2040. Survey of the Animal Kingdom (4)

2. Upper Division (49-53 units)

Speech 3852. Introduction to Speech and Language Disorders (4)
Speech 3853. Process of Oral Communication (4)
Speech 3854. Introduction to Speech Science (4)
Speech 3855. Introduction to Phonetics (4)
Speech 3857. Organic Disorders of Speech (4)
Speech 3859. Introduction to Audiology (4)
Speech 4800. General Semantics (4)
Speech 4810. Communication Theory (4)
Speech 4853. Vocal Pathology and Rehabilitation (4)
Speech 4854. Diagnosis of Speech and Language Disorders (4)
Speech 4855. Aural Rehabilitation (4)
Speech 4856. Clinical Practicum in Speech Pathology and Audiology (1-5)
Speech 4859. Seminar in Speech Pathology and Audiology (4)

B. Elective Courses: (20-22 units)

Each student enrolled in this major must complete 20-22 units of upper division courses in the Department of Human Development or in the Department of Psychology. A combination of courses in Human Development and Psychology may also be acceptable so long as 20-22 units are successfully completed. Students are responsible for meeting the prerequisites of courses in Human Development and Psychology. Lists of acceptable courses are in the Speech Pathology and Audiology office. All elective courses accepted for the completion of requirements in the major, however, must be specifically approved by the student's adviser.



Unit Summary

Major: Courses in Speech Pathology and Audiology	49-53
Courses in supporting fields	42-45

The Speech Pathology and Audiology Minor**I. Required Courses:**

Speech 3852. Introduction to Speech and Language Disorders	4
Speech 3855. Introduction to Phonetics	4
Speech 3859. Introduction to Audiology	4
Total Required	12

II. Electives:

Speech 1004. Interpersonal Communication	4
Speech 3854. Introduction to Speech Science	4
Speech 4800. General Semantics	4
Speech 4810. Communication Theory	4
Speech 4854. Diagnosis of Speech and Language Disorders	4
Speech 4855. Aural Rehabilitation	4
Total Required	20
Total	32

Speech Pathology and Audiology Option: Liberal Studies**Credential Track**

(path for students seeking provisional credential as undergraduates) (24 units)

Required:

Speech 3852. Introduction to Speech and Language Disorders	4
Speech 3855. Introduction to Phonetics	4
Speech 3859. Introduction to Audiology	4

Plus three courses from the following list of courses (one of them may be counted in Area IE of the Liberal Arts Major).

Speech 1004. Interpersonal Communication	4	
Speech 3854. Introduction to Speech Science	4	
Speech 4800. General Semantics	4	Choose 3
Speech 4810. Communication Theory	4	courses
Speech 4854. Diagnosis of Speech and Language Disorders	4	to total
Speech 4855. Aural Rehabilitation	4	12 units
Total	24	

Liberal Arts Track**Credential Track** (path for students seeking credential after graduation) (31 units)**Requirements:**

Speech 3852. Introduction to Speech and Language Disorders	4
Speech 3855. Introduction to Phonetics	4
Speech 3859. Introduction to Audiology	4

Electives:

Speech 1004. Interpersonal Communication	4
Speech 3854. Introduction to Speech Science	4
Speech 4800. General Semantics	4
Speech 4810. Communication Theory	4
Speech 4854. Diagnosis of Speech and Language Disorders	4
Speech 4855. Aural Rehabilitation	4
Total	31

COURSES**3852. Introduction to Speech and Language Disorders (4)**

Emphasis on acquisition of speech and language by children and on deviations from normal speech patterns. (F)

3853. Process of Oral Communication (4)

Origin and development of speech in the human being. Relation of speech to thought, emotion and personality. (Sp)

3854. Introduction to Speech Science (4)

Study of the physiology and anatomy of the speech mechanism; emphasis on both normal and abnormal speech. (W)

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. (F, W)

3857. Organic Disorders of Speech (4)

Examination of various speech pathologies resulting from organic defects and their rehabilitation. Prerequisites: Speech 3852 and Speech 3854, or consent of instructor. (Sp)

3859. Introduction to Audiology (4)

Anatomy and physiology of the human ear. Nature of auditory stimuli. Survey of clinical audiology including an introduction to hearing disorders and measurement. (F)

4853. Vocal Pathology and Rehabilitation (4)

Study of various functional and organic vocal disorders. Theories and methods of correcting vocal pathologies found in adults and children. Prerequisites: Speech 3852 and Speech 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: Speech 3852, 3855, 3857, or consent of instructor. Two hrs. lect., 6 hrs. lab. (F,W)

4855. Aural Rehabilitation (4)

Analysis and evaluation of techniques employed with the acoustically handicapped in speech reading and auditory training. Prerequisite: Sp. 3859, or consent of instructor. (Sp)

4856. Clinical Practicum in Speech Pathology and Audiology (1-5)

Practice in Speech and Hearing Laboratory Clinic. May be repeated for a maximum of 5 units. Prerequisite: Speech 3852, or consent of instructor. Three hrs. lab. per week for each unit of credit. (A)

4858. Speech Handicapped School Children (4)

Survey of various disorders of speech, language and hearing found in the schools. Designed for non-majors, especially teachers. (Y)

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: Speech 3859. (F, W)

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: Speech 3857. (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. (Y)

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)



STATISTICS

(Department of Statistics, School of Science)

Professors: Heebok Park, George J. Resnikoff, William L. Sawrey, John W. Summers, Bruce E. Trumbo

Associate Professors: Richard Drogin, Dean H. Fearn (Chair), Elliott Nebenzahl, Michael Orkin

Assistant Professors: Richard Y. Kakigi, Julia A. Norton, Minja Paik, Richard M. Stanley

GENERAL INFORMATION

The Department of Statistics offers an undergraduate program leading to the degree of Bachelor of Science in Statistics and a graduate program leading to the degree of Master of Science in Statistics.

The purpose of the B.S. program is to prepare students for employment as statisticians and applied probabilists in government, business, and industry or for graduate study in mathematical statistics. Students are expected to become familiar with methods of data collection, such as experimental and survey design; with the most frequently used approaches to data analysis and interpretation; and with the construction and verification of probability models. They are also expected to learn enough mathematics and enough about the theoretical foundations upon which these applied methods rest so that they can continue after graduation to acquire an understanding of new techniques and the application of existing techniques to new situations. Finally, all students—but especially those who intend to work as statisticians before doing any additional academic work—are encouraged to develop some familiarity with the subject matter of at least one experimental or administrative science and with the importance of statistical methods to that field.

The Statistics Major Leading to a B.S. Degree

Requirements

- I. *General Education Requirements.* Complete the 76-unit requirement in general education, which applies for all majors.
- II. *Major Requirements.* Complete the three requirements specified below for a total of 68–74 units. (Unless otherwise indicated, all courses listed in this part are 4-unit courses.)
 - A. *Basic Requirement (20–26 units)*
 1. *All of the following:*
 - Math. 1300. Elementary Functions and Coordinate Geometry
 - Math. 1304, 1305. Calculus I, II
 2. *One of the following:*
 - Math. 3701. Introduction to Algorithmic Processes (computer programming and theory)
 - Math. 2304. † Calculus III

One of the following courses (including also the indicated prerequisite course, if required):

 - Stat. 3010. Statistical Methods in the Social Sciences [and its prerequisite, Stat. 1000 (5)]
 - Stat. 3031. Statistical Methods in Biology
 - Mgmt. 3100. Intermediate Quantitative Analysis (5) [and its prerequisite, Stat. 2010 (5)]
 - Math. 2101. † Elements of Linear Algebra
 - B. *Mathematical Statistics and Probability Requirement (28 units)*
 1. *All of the following:*
 - Stat. 2400. Basic Concepts of Probability with Applications
 - Stat. 3401. Introduction to Probability Theory
 - Stat. 3502, 3503. Statistical Inference I, II

† Students wishing to prepare for graduate study in probability theory, applied statistics, or mathematical statistics (mathematical statistics pattern) should select these courses.

2. One of the following:
 - Stat. 4410. † Introduction to Stochastic Processes
 - Stat. 4610. Nonparametric Statistical Methods for the Social Sciences
3. One of the following pairs of courses:
 - a. Stat. 4501, 4502. † Introduction to Mathematical Statistics I, II
 - b. Stat. 4601. Applied Statistics, and Stat. 4602. Experimental Design

C. Area of Emphasis (20 units)

Complete one of the following twenty-unit requirements

1. † Twenty units of approved upper division mathematics or statistics courses in addition to those used for the requirements in Sections A and B above. Math. 3300, Intermediate Analysis, should normally be included in these 20 units.
2. Twenty units of approved courses in an approved area. Such areas currently approved include the following: Biological Science, Business/Economics, Chemistry, Earth 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. 3000, Stat. 3010, and Stat. 3031, may be applied toward these twenty units.)

III. *Elective Courses.* Complete additional elective courses for a total of 186 units. The number of elective units in the 186-unit total will vary depending on how major requirements are met. For example, some mathematics courses can be applied toward both major requirements and *Basic Subjects* or *Natural Science* lower division General Education requirements, thus increasing the number of free electives. Most majors have about 60 or more elective units.

Restriction on Credit/No Credit Courses

It is the policy of the department that *no* course taken on a Credit/No Credit 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. Three factors combine to make such a double major feasible in many cases: (a) 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. (b) Up to twenty units in certain areas outside of Statistics may be applied toward the Statistics degree. (See requirement II-C above.) (c) Some other majors require Statistics courses that also count towards the Statistics major (e.g., Stat. 2010, Stat. 3010, etc.). An illustrative program using a joint major in Business Administration (accounting option) and Statistics as an example is among those provided below.

Note: If a student simultaneously completes requirements for two majors leading toward *different degrees* (e.g., B.S. in Statistics and B.A. 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.

† Students wishing to prepare for graduate study in probability theory, applied statistics, or mathematical statistics (mathematical statistics pattern) should select these courses.

Illustrative Programs for Statistics Major

Applied Pattern

For purposes of illustration, *Psychology* is used as the area of emphasis. This illustration presupposes a three-year mathematics background in high school. See an adviser to make adjustments to suit your own background and choice of area of emphasis.

	Units		
	Fall	Wint.	Spr.
<i>First Year</i>			
Math. 1130. College Algebra †	4		
Electives or General Education	11		
Stat. 1000. Elements of Probability and Statistics		5	
Math. 1230. Analytic Trigonometry †		3	
Electives or General Education		7	
Stat. 3010. Statistical Methods in the Social Sciences			4
Math. 1300. Elementary Functions and Coordinate Geometry			4
Electives or General Education			7
<i>Second Year</i>			
Math. 1304. Calculus I	4		
Stat. 2400. Basic Concepts of Probability with Applications	4		
Electives or General Education	8		
Math. 1305. Calculus II		4	
Psych. 2000. General Psychology I		5	
Electives or General Education		6	
Stat. 3401. Introduction to Probability Theory			4
Psych. 2010. General Psychology II			4
Electives or General Education			8
<i>Third Year</i>			
Stat. 3502. Statistical Inference I	4		
Math. 3701. Introduction to Algorithmic Processes	4		
Psych. 3100. Experimental Psychology I	5		
Electives or General Education	3		
Stat. 3503. Statistical Inference II		4	
Psych. 3500. Social Psychology		4	
Electives or General Education		7	
Stat. 4610. Nonparametric Statistical Methods for the Social Sciences			4
Psych. 4100. Conditioning and Learning			4
Electives or General Education			8
<i>Fourth Year</i>			
Stat. 4601. Applied Statistics	4		
Electives or General Education	12		
Stat. 4602. Experimental Design		4	
Electives or General Education		12	
Electives or General Education			15
			186

† May be waived by examination; if waived by examination, the student must instead complete 4 units of approved electives.

Mathematical Statistics Pattern

This illustration presupposes four years of mathematics in high school and is an example of a program that would provide adequate preparation for graduate study in mathematical statistics. See an adviser to make adjustments to suit your own background and interests.

	Units		
	Fall	Wint.	Spr.
<i>First Year</i>			
§ Math. 1300. Elementary Functions and Coordinate Geometry.....	4		
Electives or General Education	11		
Math. 1304. Calculus I.....		4	
Electives or General Education		11	
Math. 1305. Calculus II			4
Stat. 2400. Basic Concepts of Probability with Applications			4
Electives or General Education			7
<i>Second Year</i>			
Math. 2304. Calculus III	4		
Electives or General Education	11		
Math. 2101. Elements of Linear Algebra		4	
Electives or General Education		11	
Stat. 3401. Introduction to Probability Theory			4
Electives or General Education			11
<i>Third Year</i>			
Math. 3100. Linear Algebra	4		
Stat. 3502. Statistical Inference I.....	4		
Electives or General Education	8		
Stat. 3503. Statistical Inference II		4	
Stat. 4410. Introduction to Stochastic Processes		4	
Electives or General Education		8	
Stat. 4601. Applied Statistics			4
Math. 3300. Intermediate Analysis			4
Electives or General Education			8
<i>Fourth Year</i>			
Stat. 4602. Experimental Design	4		
Stat. 4501. Introduction to Mathematical Statistics I	4		
Electives or General Education	8		
Stat. 4502. Introduction to Mathematical Statistics II		4	
Math. 4331. Advanced Calculus.....		4	
Electives or General Education		8	
Math. 4332. Advanced Calculus.....			4
Stat. 4610. Nonparametric Statistical Methods for the Social Sciences			4
Electives or General Education			8
			186

§ See course description for the prerequisites to Math. 1300.

Double Major

For purposes of illustration *Business Administration (accounting option)* is used as the second major. This illustration presupposes four years of high school mathematics. See an adviser to make adjustments to suit your own background and choice of second major.

	Units		
	Fall	Wint.	Spr.
<i>First Year</i>			
Math. 1300. ^{1,2,3} Elementary Functions and Coordinate Geometry.....	4		
Electives or General Education	12		
Math. 1304. ^{2,3} Calculus I.....		4	
Electives or General Education		12	
Math. 1305. ^{2,3} Calculus II			4
Stat. 2010. ^{2,3} Elements of Statistics for Business and Economics			5
Electives or General Education			6
<i>Second Year</i>			
Acct. 2251. ^{2,3} Principles of Accounting I	4		
Stat. 2400. ² Basic Concepts of Probability with Applications	5		
Stat. 3502. ² Statistical Inference I	4		
Acct. 2701. ^{2,3} Legal Environment of Business	4		
Acct. 2252. ^{2,3} Principles of Accounting II		4	
Econ. 2301. ³ Principles of Economics I		4	
Stat. 3503. ² Statistical Inference II.....		4	
Electives or General Education		4	
Acct. 2270. ^{2,3} Introduction to Programming and Business Computer Systems			4
Econ. 2302. ³ Principles of Economics II			4
Stat. 3401. ² Introduction to Probability Theory.....			4
Math. 2304. ^{2,3} Calculus III			4
<i>Third Year</i>			
Acct. 3211. ^{2,3} Intermediate Accounting I.....	4		
Econ. 3551. ³ Managerial Economics I	4		
Mgmt. 3600. ³ Theories of Management	4		
Mgmt. 3100. ³ Introduction to Quantitative Methods in Business	5		
Acct. 3212. ³ Intermediate Accounting II		4	
Econ. 3552. ³ Managerial Economics II		4	
Mgmt. 3614. ³ Organizational Behavior		4	
Mktg. 3401. ³ Micro-Marketing		4	
Acct. 3213. ³ Intermediate Accounting III			4
Acct. 3231. ³ Cost Accounting I.....			4
Econ. 3005. ³ Macro-Economic Theory			4
Stat. 4601. ² Applied Statistics			4
<i>Fourth Year</i>			
Stat. 4610. ² Nonparametric Statistical Methods for the Social Sciences	4		
Acct. 3232. ³ Cost Accounting II.....	4		
Mgmt. 3300. ³ Seminar in Financial Management	4		
Stat. 4602. ² Experimental Design.....	4		
Mgmt. 3680. ³ Industrial Relations		4	
Acct. 4250. ³ Auditing		4	
Mgmt. 4500. ³ Business, Government and Society		4	
Electives or General Education		4	
Mgmt. 4650. ³ Seminar in Managerial Planning and Control			4
Mgmt. 3220. ³ Federal Income Tax Accounting			4
Acct. 4233. ³ Advanced Cost Accounting			4
Acct. 4270. ³ Accounting Information Systems			4
			193

¹ See course description for the prerequisites to Math. 1300.

² Necessary prerequisite, required course, or recommended course for Statistics.

³ Necessary prerequisite: required course, or recommended course for Business Administration (accounting option).

The Master of Science in Statistics

GENERAL INFORMATION

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.

REQUIREMENTS FOR THE MASTER OF SCIENCE IN STATISTICS

Admission to the Program

1. A baccalaureate degree.
2. Differential and Integral Calculus, including multiple integration and infinite-series. (Students lacking this calculus requirement may, with Departmental approval, enter as Conditionally Classified, becoming Classified upon meeting the requirement with a satisfactory record.)
3. Departmental Approval.

Advancement to Candidacy

1. Completion of at least 15 quarter-units of approved work beyond the baccalaureate, with an average of B (3.0) or better.
2. Departmental Approval. (May be contingent on a written or oral qualifying examination.)

Curricular Requirements

Successful completion of the following unit, grade, and course requirements.

1. 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 better, and no more than 5 of the units applied toward the 23 unit graduate-level requirement may be at a grade below B.

2. Course Requirements

All units applied toward the above unit requirements must be approved by an adviser. In order to fulfill the 6000-level requirement, the candidate must take at least five courses offered by the Statistics Department. Courses below 6000 level and courses outside the Department must be selected from among courses the Department designates as "acceptable" (see headings below). The following courses *must be* included in the units counted toward the degree.

(a) Mathematics Courses

Math 3300 (or equivalent) and one acceptable upper-division mathematics course approved by an adviser.

(b) Statistics Courses

Stat 6501 and Stat 6502, and either of Stat 6401 or 6430.

Comprehensive Examination

Successful completion of a Departmental examination covering the contents of the courses in the candidate's approved program and possibly other material (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 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 he/she intends to graduate or in the preceding quarter, after consulting with his/her adviser. The examination committee is the final Departmental authority in deciding eligibility to take the examination.

Acceptable Upper-Division Statistics Courses

3401. Introduction to Probability Theory (4)
- 3502, 3503. Statistical Inference I, II (4 each)
3510. Sampling Procedures for Surveys (4)
4410. Introduction to Stochastic Processes (4)
- 4501, 4502. Introduction to Mathematical Statistics I, II (4 each)
4515. Multivariate Analysis (4)
4601. Applied Statistics (4)
4602. Experimental Design (4)
- 4860-69. Undergraduate Seminar (2-4 each)

Acceptable Upper-Division and Graduate Courses in Other Programs

Each fall the Department will publish a list of upper-division and graduate courses in other departments (mathematics, business administration, etc.) which will be accepted toward the "curriculum requirements" stated above if taken while the list is in force. This list is available in the Department office.

UNDERGRADUATE COURSES

Information about Elementary Statistics Courses.

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 generally take Stat. 3031 as their first Statistics course. *Business and Economics majors* should generally take Stat. 2010. *Sociology majors* who elect to take only one Statistics course should take Stat. 2120, but the sequence 1000/3010 is preferable to 2120/3010 for those taking two or more Statistics courses. Stat. 1100 has a less stringent prerequisite than Stat. 1000 and may be appropriate for students who are sure that they will take *only one* Statistics course (e.g., certain majors in Liberal Studies, Nursing, Physical Education, etc. as well as some students using a Statistics course to satisfy general education requirements). For students who have taken Math. 1130 or equivalent, Stat. 2400 may be a better general education course than either 1000 or 1100. Stat. 3401 and Stat. 3502 may also 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, 2120. Students with credit for Math. 1802, Math. 1304, or equivalent of either must not take Stat. 1000, 1100, or 2120 without previous Statistics Department written approval; preferably select Stat. 2010, 2400, 3031, 3401, or 3502 instead. Neither Stat. 1100 nor 2120 may follow any other Statistics course; Stat. 1000 may not follow any upper division Statistics course. *Business and Economics majors* require Stat. 2010 and so must not take Stat. 1000 (unless substitution of 1000/3010 for 2010 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 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; 3401 for 2400; 3502 for 2010 or for 3031; 3502 (plus 5 elective units) for 1000/3010; 3503 for 4000, or for 4031.

1000. * Elements of Probability and Statistics (5)

Descriptive statistics (measures of central tendency, dispersion, correlation), elementary discrete probability distributions. Introduction to tests of statistical hypotheses. Prerequisite: demonstrate proficiency equivalent to 1½ years of high school algebra. (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: ability to do arithmetic with fractions. (F, W, Sp, Tent. Su)

1920–1999. Directed Group Study (1–4)

2010. * Elements of Statistics for Business and Economics (5)

Introduction to modern probability, descriptive statistics, estimation and hypotheses testing linear regression. Applications to business and economics. Prerequisite: Math. 1305 or Math. 1803 (either may be taken concurrently). (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. Credit/No Credit only. Not for Statistics major credit. (Not open to those with credit for G.S. 4088.) (F)

2120. * Elements of Statistics in Sociology (5)

Measures of central tendency, variability, association, normal, t, and chi-square probability distributions; inferential statistical methods in sociology. Prerequisite: Math. 1100 or demonstrated proficiency in 1½ years of high school algebra. [Not open for credit to students having credit for Stat. 1000.] (F, W, Sp)

2400. * Basic Concepts of Probability with Applications (4)

Discrete sample spaces and probability functions, random variables, and their distributions. Applications of probability to statistics, games of chance, and to selected problems in sciences such as genetics. For the purpose of satisfying General Education requirements this course is recommended in place of Stat. 1000 for students meeting the prerequisites: Prerequisites: Three years of high school mathematics or Math. 1130 or equivalent. (F, Tent. Sp)

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, introduction to design of experiments. Prerequisite: Stat. 1000 or Stat. 2120, or equivalent. [Not open for credit to students having credit for Stat. 3000.] (A)

3031. * Statistical Methods in Biology I (4)

Basic probability and statistical concepts. Introduction to the analysis of variance, correlation and simple linear regression. Non parametric techniques with application to biology. Prerequisite: Math. 1130. (F, W, Sp, Su)

* Read *Information about Elementary Statistics Courses* at the beginning of the Statistics course listings.

3401. Introduction to Probability Theory (4)

The modern theory of probability with applications to science and engineering. Topics include the notion of sample space, random variables, expectation, joint distributions, combinatorial analysis and special distributions such as the binomial, the Poisson, the normal, etc. Cross-listed with Math. 3401. Prerequisite: Math 1305 (may be taken concurrently) or consent of instructor. (F, W, Sp)

3415. Introduction to Decision Theory (4)

Probability and conditional probability. Expectation and its applications to decision making. Decision trees. Bayesian models and methods, comparison with classical methods. Prerequisite: Stat. 1000, Stat. 2010, or Stat. 2400. (Y)

3502. Statistical Inference I (4)

Probability spaces, random variables and their distributions, estimation theory and hypothesis testing, with special emphasis on treatment of actual data. Cross-listed with Math. 3502. Prerequisite: Math. 1305 or consent of instructor. (F)

3503. Statistical Inference II (4)

Introduction of general linear hypothesis with emphasis on applications to design and analysis of experiments. 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. Formerly Stat. 4861. Prerequisite: Stat. 1000 or equivalent. (F or W)

4000. Statistical Analysis in the Behavioral Sciences (4)

Introduction to analysis of variance. Prerequisite: Stat. 3010 or equivalent. (Sp)

4031. Statistical Methods in Biology II (4)

Linear hypothesis with applications in biology. Multiple regression, multiway analysis of variance, bio-assay and analysis of covariance. Design of experiments in the study of biology. Prerequisite: Stat. 3031. (Y)

4401. Introduction to Stochastic Processes (4)

The theory and application of stochastic models to empirical phenomena, with emphasis on stationary and counting processes and on Poisson, Markov and Gaussian processes. Cross-listed with Math. 4401. Prerequisite: Stat. 3401. (Formerly Stat. 4410) (Y)

4501. Introduction to Mathematical Statistics I (4)

Theories of estimation and hypothesis testing, including derivations of relevant distributions. Treatment of multivariate normal distribution and general linear hypothesis using matrix and vector notation. Cross-listed with Math. 4501. Prerequisite: Math. 1305 (Calculus II) and Stat. 3401 (Introduction to Probability Theory) or consent of instructor. (W)

4502. Introduction to Mathematical Statistics II (4)

Regression models, analysis of variance and covariance models, other topics from design of experiments treated as examples of general linear hypothesis. Cross-listed with Math. 4502. Prerequisite: Stat. 4501. (Sp)

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 (Stat. Inference II) or consent of instructor. (Y)

4601. Applied Statistics (4)

Computational methods in statistics. Use of calculators and computers in statistical analysis including regression, analysis of variance. Prerequisite: Stat. 3502 (may be taken concurrently) or consent of instructor. (Sp)

4602. Experimental Design (4)

Methodology of design and analysis of experiments in the physical, biological, and social sciences. Prerequisite: Stat. 3503. (F)

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 hypotheses; treatment of ties; some estimation procedures. (Previously Stat. 4010.) Prerequisite: Stat. 3010 or equivalent. (F, Tent. W, Tent. Sp)

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)**4920-4999. Directed Group Study (1-4)****GRADUATE COURSES****6401, 6402. Advanced Probability I, II (4 each)**

Measure theoretic treatment of probability spaces. Random variables and probability distributions, product spaces, conditional probabilities, expectations, and characteristics functions. The classical limit theorems. Prerequisites: Stat. 4401 (Introduction to Stochastic Processes) and Math. 3300 (Intermediate Analysis) or consent of instructor. (Y)

6410. Queueing Theory (4)

Structure and basic theory of queues. Poisson queues, non-Poisson queues, renewal theory and applications. Prerequisite: Math. 3300 (Intermediate Analysis) and a probability course, or consent of instructor. (Alt.Y)

6430. Stochastic Processes (4)

The theory of random processes and its application to the natural and social sciences. Prerequisite: Stat. 4410 (Introduction to Stochastic Processes) and Math. 3300 (Intermediate Analysis), or consent of instructor. (Tent. W)

6501, 6502. Mathematical Statistics I, II (4 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. Prerequisite: Math. 3300 (Intermediate Analysis) and Stat. 3502 (Statistical Inference I), 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. Prerequisites: Math. 2101 (Elements of Linear Algebra) and Stat. 3503 (Statistical Inference II), or consent of instructor. (Y)

6520. Reliability Theory (4)

Investigation of parametric family of distribution and structural properties of coherent systems. Estimation and confidence bounds of reliability parameters. Optimal spare parts allocation and treatment of censored data. Prerequisite: Stat. 4502 or consent of the instructor. (Alt.Y)

6860-69. Selected Topics in Graduate Probability and Statistics (2-4 each)

Probability and/or Statistics extending beyond regular courses. Variable content to be specified at time of offering. May be repeated for credit. Prerequisite: graduate standing and consent of instructor. (Y)

6870-79. Seminar in Probability and Statistics (2-4 each)

An intensive study of a selected topic in probability and/or statistics from current literature emphasizing student participation. May be repeated for credit. Prerequisite: graduate standing and consent of instructor. (Y)

6900. Independent Study (1-4)**6920-6999. Directed Group Study (1-4)****TEACHER EDUCATION**

(Department of Teacher Education, School of Education)

Professors Emeritus: Edward G. Olsen, Herman V. Yeager, Harry Zeitlin

Professors: E. H. Belgum, Gerald W. Brown, Pauline Brown, Ruth K. Carlson, Gordon F. Davies, Delmo Della-Dora, Dale Hendrickson, Tudor M. Jones, William E. Jones, Albert R. Lepore, Marilyn L. Nye (Chair), Claire Pederson, Esther P. Railton, Mildred R. Sabath, James E. Spencer, John M. Stevens, Charles W. Worland

Associate Professors: Robert M. Bonnin, Paul V. Collins, Jane A. Hebler, Alvin E. Howe, Margaret A. James, Richard L. Kimball, Janet D. McCowin, Helen C. Meyer, Victoria C. Mui, Rita W. Peterson, Herminio Rios, James L. Shanker, Morton S. Tennenberg, Joan S. Thomas, Eugene D. Whitehorn

Assistant Professors: Ellsworth A. Berget, Carmen Canales

Lecturers: Antonio Andrade, Margaret Chambers, Marsha Fabian, Patricia Hardy

Graduate Coordinator: Albert R. Lepore

GENERAL INFORMATION

The Department of Teacher Education offers *preservice* professional preparation programs, *inservice* professional education programs and *graduate* programs.

The *preservice* programs are primarily professional preparation for Multiple Subject and Single Subject Teaching Credentials under the Ryan Act. The Department also continues to provide partial credential programs under the Fisher Act for those to whom it applies.

Inservice programs and courses and a program of Community College Teaching are available in specified areas as indicated below.

Graduate programs include a Master of Science in Education with three options and also three Specialist Credential programs. The M.S. options are in Curriculum, Early Childhood Education and Reading Instruction. Programs for Specialist Credentials include Reading, Bilingual/Cross-Cultural and Early Childhood.

Basic Teaching Credential Programs**Philosophy—Basic Credential Programs**

The Department of Teacher Education offers approved programs in three basic credential areas. The Multiple Subject and Single Subject Credential Programs have been developed to meet the requirements of the California Commission for Teacher Preparation and Licensing. These programs emphasize preparation for teaching at different grade levels to children and young people of different ethnic and cultural backgrounds.

In addition, the Partial Fulfillment Credential Program is for individuals who have completed their baccalaureate degrees and student teaching requisites and have received approval by the Commission to teach in the public schools while finishing their credential requirements. The Department offers courses in theoretical foundations and methods courses which are scheduled to meet the needs of employed teachers. In addition, counseling through other departments is available as related to the completion of academic work.

In all three programs, preparation is directed toward helping candidates and teachers to integrate theory and methods for their immediate and long range teaching.

Multiple Subject Credential: The Multiple Subject Credential limits the holder to teaching in any self-contained classroom (where a teacher or teaching team has responsibility for all or most areas of instruction for a set of students). The credential allows teaching at any level of the public schools, preschool through grade twelve, and in programs for adults, if the assignment is in a self-contained setting. Assignment of teachers and students to self-contained classes is common in California in preschools and elementary schools.

Single Subject Credential: The Single Subject Credential limits the holder to the teaching of an authorized single subject area (the teacher teaches the same subject area to different groups of students during the school day). The credential allows teaching at any level of the public schools, preschool through grade twelve, and in programs for adults (not Community College instruction), if the assignment is in the authorized subject area. Assignment of teachers to specified subject area courses is common in California in junior and senior high schools.

Partial Fulfillment Credential: Those who hold "partial fulfillment credentials" may complete their Standard Credential at CSUH. Courses are offered each quarter which meet the teacher education requirements of the Fisher Credential Program. Advisers are available in the Department of Teacher Education to help candidates in planning their programs of coursework.

Special Facilities

Within the Department of Teacher Education are three outstanding facilities for credential candidates, in-service teachers and graduate students. These are the Student Teaching Center, the Curriculum Materials Laboratory, and the Reading Center.

Patterned after an idealized school materials preparation center, the Student Teaching Center and Curriculum Materials Laboratory provide a site for developing instructional materials, reviewing current instructional resources, exchanging ideas, and developing skills in working with these resources. The Reading Center contains all major reading series which are being used in the State of California, and a wide selection of professional texts and representative materials in the field of reading and language arts.

Career Opportunities

Teaching opportunities vary greatly in different fields from year to year. As of this writing (Summer, 1977) the best opportunities appear to be the Bilingual Emphasis (Spanish) in Multiple Subjects; mathematics, life science and physical science for Single Subjects Credentials and for those who complete the Middle School Program in most fields. Physical Education for women appears to be in greater demand than for men. The Single Subject Credentials for Social Science, History and Government are the least in demand unless the person also holds a credential in some other subject field. Other credentials fall somewhere in between in terms of demand. Persons willing to teach in small communities and/or outside the Bay Area usually have better opportunities for job placement.

Minimum legal requirements for the Multiple Subject and the Single Subject Credentials:

1. A baccalaureate or higher degree, except in professional education, from an approved institution.
2. Subject matter competence demonstrated either
 - a. by passing a subject matter examination approved by the Commission for the credential teaching area, or
 - b. by completing a subject matter preparation program approved by the Commission (this is usually a bachelor's degree major program).
 - 2.1. Multiple Subject academic preparation is based upon a "diversified" or "liberal arts" major program or equivalent. This includes approximately equal units of coursework in each of four areas of subject matter: English and speech, science and mathematics, arts and humanities, and social sciences. At CSUH the Liberal Studies major includes a Commission-approved program for Multiple Subject preparation.
 - 2.2. Single Subject academic preparation is based upon a bachelor's degree major program within one of the following single subject areas: art, business, English, foreign languages, government, history, mathematics, music, natural science, physical education, physical science, and social science. (The additional areas of home economics and industrial arts are not available on this campus. Professional preparation for the Single Subject Teaching Credential in business is not available on this campus.) Consult the departmental listing in this catalog to determine whether a Single Subject Waiver Program exists in that discipline.
3. A program of professional education approved by the Commission, including professional education coursework and student teaching. The student teaching must comprise at least one-half of the program.
4. Competence in the teaching of reading demonstrated either
 - a. by passing an examination in the teaching of reading approved by the Commission, or
 - b. by completing a program of instruction in the teaching of reading approved by the Commission.

Single Subject Teaching Credential candidates in the areas of art, music, and physical education are exempted, by law, from the reading requirement. At CSUH, candidates in art, music and physical education may elect to include the program of reading instruction in their professional preparation, but are not required to do so. Methods of teaching reading at CSUH are included in the professional preparation program for all other candidates for either credential.

Upon successful completion of the four requirements listed above, a candidate is granted a preliminary teaching credential in the appropriate subject matter area. Such a credential is valid for public school teaching in California, pending completion of the two requirements stated below, for a period of five years from the granting of this credential. The two additional requirements for a clear credential status are:

5. Completion of a "fifth year" of study. At CSUH, a fifth year of study means earning of 45 quarter units of upper division, professional and/or graduate level coursework after completion of the bachelor's degree. It may be met by the professional preparation program (see below).
6. A course in Health Education must be completed prior to the granting of a Clear Credential. This may be taken prior to entering the program, concurrently with the program, or following the completion of the Preliminary Credential.

Specific Requirements Recommended for the Program, Year by Year:

The Professional Preparation Program for Multiple Subject and for Single Subject Credentials may be completed in one of three patterns within the required FIVE years of college work:

1. **Undergraduate:** The entire professional preparation program may be completed during the four-year program of undergraduate study. The teacher who earns a preliminary teaching credential at graduation from the four-year program will have five years from the granting of the preliminary certificate to complete the fifth year of study. The fifth year of study may be, but need not be, taken or completed at CSUH.
2. **Start Undergraduate, Finish Post-baccalaureate:** The professional preparation program may be started as an undergraduate student and completed after graduation from the four-year program. The candidate receives the preliminary credential upon completion of the academic preparation program and degree and the completion of the professional preparation program. Units in the programs taken after completion of the baccalaureate degree requirements will count toward the 45 needed for the fifth year. The teacher will have five years to complete the remaining units for the fifth year. The remaining units may be, but need not be, taken at CSUH.
3. **Post-baccalaureate:** The entire professional preparation program may be taken after completion of the requirements for the bachelor's degree. The program units (45) will count as the fifth year requirement. The candidate will receive the clear credential upon completion of the academic and professional preparation programs if he has met the Health Education requirement.

The professional preparation program has "variants" for candidates interested in earning the Multiple Subject or Single Subject Credential and a special variant program for candidates interested in teaching "middle school" (grades 5-8). Middle School candidates may earn either the Multiple Subject or the Single Subject Credential or both if the subject area competency for the two credentials has been met. Additional "variants" include the Multiple Subject Credential Program with a "bilingual emphasis" in Spanish/English. Portuguese/English is available as of July 1978. An Intern Program which is designed to meet specific district requests when qualified personnel are not available is now offered. (See the Department of Teacher Education for information and requirements.)

The variants in the professional preparation program are essentially the same. Completion of a program is based upon the development and demonstration of a wide range of teaching knowledges and abilities. Each candidate must demonstrate "competence" in teaching in many different ways and in a variety of settings, including at least one student teaching experience with a class of racial, ethnic, or cultural background different from the candidate's own background. These competencies are met in the coursework and student teaching.

The professional preparation program has three components:	Units
1. Professional education coursework	15
2. Methods of teaching reading	5
3. Student teaching experiences	20-25
Program Total	40-45

The sequences in the Variant Programs are:

Variant Program Title	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Undergraduate:	T Ed 53014 T Ed 53203 Math 40203 or T Ed 53163 10	T Ed 53053 T Ed 53304 T Ed 53262 T Ed 53384 16	T Ed 53103 T Ed 53313 T Ed 53323 or T Ed 53356 9	T Ed 53152 T Ed 5336 ..10 T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 15
Post-baccalaureate Single Subject	T Ed 53014 T Ed 53163 T Ed 53203 T Ed 53304 14	T Ed 53053 T Ed 53103 T Ed 53262 T Ed 53374 T Ed 53384 16	T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 15	T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 15
Post-baccalaureate Multiple Subject (Basic & Bilingual Emphasis)	T Ed 53014 Math 40203 T Ed 53203 T Ed 53304 14	T Ed 53053 T Ed 53103 T Ed 53262 T Ed 53398 16	T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 15	T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 15
Post-baccalaureate Middle School (also uses Mult Sub Variant and/or Sing Sub Var)	T Ed 53203 T Ed 53262 Math 40203 or T Ed 53163 8	T Ed 53014 T Ed 53103 T Ed 53304 11	T Ed 53053 T Ed 53374 T Ed 53384 or T Ed 53398 11-15	T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 T Ed 53152 T Ed 5346 ..13 15

With the exception of the Undergraduate Variant Program, the candidates are involved essentially full-time in each quarter of the sequence. Undergraduates have requirements outside of the program to meet, in addition to those required within the program.

The sequence in the Intern Variant Program is:

Program Title	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Multiple Subject Intern Program	T Ed 53014 T Ed 53203 T Ed 53404 Math 40203 14	T Ed 53053 T Ed 53262 T Ed 53417 12	T Ed 53103 T Ed 53427 10	T Ed 53152 T Ed 53437 9
Single Subject Intern Program	T Ed 53014 T Ed 53163 T Ed 53203 T Ed 53404 14	T Ed 53053 T Ed 53262 T Ed 53417 12	T Ed 53103 T Ed 53427 10	T Ed 53152 T Ed 53437 9

With the exception of the first quarter, i.e., the Summer Quarter, the candidates are involved full-time in the classroom with the major responsibility for the class.

Preparing for a teaching credential program:

Students who wish to become teachers are encouraged to consult advisers in the Department of Teacher Education as early as their freshman year and regularly thereafter. Advisers in each program are identified by the Department to work with undergraduates interested in teaching. In addition to career information, the advisers can be helpful in selecting alternatives for general education, in planning for meeting prerequisites, and in using elective units advantageously. Three areas of special concern are:

- Subject matter preparation program:** The Department requires candidates to complete the subject matter preparation before student teaching. Undergraduate program and the Middle School program candidates must complete the subject matter requirement before the full-time student teaching placement in the final quarter. Post-baccalaureate program candidates must complete the subject matter requirement before entry into the professional preparation program. The Department of Teacher Education will provide information to students about subject matter programs approved by the Commission for CSUH, about subject matter examinations approved by the Commission, and about alternatives which may be available, and will help students locate appropriate subject matter advisers to assist them in this part of teacher preparation. Plans for meeting subject matter requirements should be made at the earliest possible time in the lower division of college work. Meeting the requirements may require careful selection among alternatives for lower division general education requirements, in addition to major coursework.
- Program prerequisites:** The prerequisites for admission into the professional preparation program must be completed *before* admission (except as noted in the following Section, "Requirements for Admission . . .", paragraph 3). The prerequisites can be met as part of the lower division general education and/or as part of the upper division general education requirements or, in some cases, as part of major requirements. Since most prerequisites require coursework, a delay of at least one quarter in admission to the professional preparation program will occur if the prerequisites have not been completed (note: some program variants only start once a year).
- Organized experiences with children and youth:** Prospective candidates are encouraged to obtain experience working with children or youths. Participation in such programs as community youth agencies, youth organizations, camp counseling, tutorials, teacher aide activities, and organizations for prospective teachers are regarded as valuable background for credential program candidates.

Requirements for admission to the professional preparation program:

1. Application Procedures:

a. Students *not currently* enrolled at CSUH:

Apply to the Office of Admissions, CSUH, for admission to the University for the quarter in which you expect to start the program. You must provide evidence of such application to the Department before it can process your application to the program.

Apply to the Department of Teacher Education for a "Request for Entry into a Teacher Credential Program." Complete it, attach the required transcripts and letters, and return it to the Department.

b. Students who *are currently* enrolled at CSUH:

Apply to the Department of Teacher Education for a "Request for Entry into a Teacher Credential Program." Complete it, attach the required transcripts and letters, and return it to the Department.

c. Students who are changing from undergraduate status to post-baccalaureate status at CSUH must apply for admission to graduate work at CSUH. This is done at the Admissions Office. For students entering the program as post-baccalaureate students, this must be completed before admission. Satisfactory compliance with the admissions standards and procedures and with the deadlines of CSUH and of the Department of Teacher Education is necessary for admission.

The Department of Teacher Education has limited space in its professional preparation program variants. Applications are taken from the *opening date* for a variant until the quota of applicants for that program variant is filled. It is important to file the

"Request for Entry" as soon after the opening date as possible. For 1978-1979, these dates are:

Program Variant	First Quarter	Multiple Subject	Single Subject
Undergraduate	Spring 1979	Aug. 1, 1978	Aug. 1, 1978
Post-baccalaureate	Summer 1978	Feb. 1, 1978	XXX
	Fall 1978	Nov. 1, 1978	Nov. 1, 1977
	Winter 1979	June 1, 1978	XXX
	Spring 1979	Aug. 1, 1978	XXX
	Summer 1979	Feb. 1, 1979	XXX
Middle School	Fall 1979	Nov. 1, 1978	Nov. 1, 1978
	Fall 1978	Nov. 1, 1978	Nov. 1, 1978

(See the Department of Teacher Education for the status of openings in program variants after the starting dates listed above and for information about special programs)

2. **Admission procedures.** Admission to the professional preparation programs is determined by the Admissions Committee of the Department of Teacher Education and by the Program Teams (which include university faculty, public school faculty, and community representatives). The Committee notifies each applicant, by letter, of admission, of delay in admission, or of denial of admission. Among the criteria used by the Committee are the following:
 - a. **Grade point average (GPA):** Candidates must have an earned grade average for college work of 2.50 overall *or* 2.75 in all major coursework *or* 2.75 in two years of upper division coursework *or* must gain special approval by the Admissions committee for provisional entry into the program.
 - b. **Interview:** Candidates must be approved by an interview team. The team will include at least two members of the Department Faculty and may include faculty members from subject matter departments (required for single subject applicants), public school faculty members, and/or community representatives and other candidates.
 - c. **Prerequisites:** See paragraph 3, below, for details of prerequisites. The completion of all prerequisites is required for admission. The Admissions Committee *may* make exceptions in unusual circumstances.
 - d. **Health clearance:** Candidates are required to provide evidence of a negative test for tuberculosis prior to any placement in the schools (Since all variants place candidates in schools in the first quarter, that is a requirement for entry to the program activities and must be completed by the start of the first quarter) *and* are required to provide a medical clearance for student teaching signed by a medical practitioner licensed to practice in the State of California prior to placement in student teaching (the clearance should be based upon an examination shortly before the first student teaching quarter and *must* be received prior to the start of the quarter or placement in student teaching will be delayed).
 - e. **Undergraduate Major Department Approval:** Applicants for admission to the *undergraduate* professional preparation program must have written permission from their major advisers or department chairs for admission into the program *and* must also obtain written permission from the departments for entry into the student teaching experiences.
 - f. **Selection:** Only a limited number of positions are open in each variant program. The Admissions Committee must use a ranking system to select applicants for admission. In that ranking system, experience in organized programs for young people, as a teacher or teaching aide, especially in school is highly valued. Such experience should be documented by letters from program supervisors or teachers detailing the length of experience and the responsibilities of the candidate. Special subject matter or teaching competencies in short supply in schools are desirable and should be documented. Personal characteristics which offer promise of success in teaching are important, also. The ranking is developed from the data presented in the application information, personal letters of documentation or support, and the personal interviews.
3. **Academic requirements for admission (prerequisites):**
 - a. **Subject matter proficiency for the Credential:** Candidates must demonstrate proficiency in the subject matter scope and content approved by the Commission for the credential authorizations they seek. The requirement must be met by all candidates before entry into full-time student teaching. Demonstration procedures for subject matter proficiency were discussed in the section on "Minimum Legal Requirements . . ." at the start of the

Teacher Education section of this Catalog. Each variant has a designated point by which the subject matter requirement must be met:

Undergraduate program: Before placement in full-time student teaching (before the final program quarter).

Post-baccalaureate Multiple Subject and Single Subject programs: Before student teaching in the subject matter area (before the first quarter of the program). Single subject candidates seeking more than one authorization must complete the subject matter proficiency for each authorization before student teaching in each area.

Middle School program: Before full-time student teaching (before the last program quarter).

Post-baccalaureate Intern program: Before the start of teaching.

- b. **Speech proficiency:** Candidates must complete a course in oral communication (Spch. 1000 or equivalent) or pass a test in this area. This prerequisite is handled by the Department of Speech and Drama in cooperation with the Department of Teacher Education. Undergraduate program candidates may delay completion of this requirement until the start of student teaching.
- c. **English proficiency:** Candidates must complete an upper division course in English, including composition. For students majoring neither in English nor in Liberal Studies at CSUH, English 3003 at this institution is the standard course for this requirement. English 3020 is the standard course for Liberal Studies Majors. This requirement is handled by the Department of English in cooperation with the Department of Teacher Education. Undergraduate program candidates may delay this requirement until the end of the second quarter in the program.
- d. **Mathematics proficiency:** Candidates for the Multiple Subject Teaching Credential program must demonstrate understanding of the concepts of mathematics commonly taught in elementary and middle school grades *prior* to admission to the program. This requirement may be satisfied by:
 - (1) passing a course approved by the Department of Mathematics and the Department of Teacher Education. The standard course is Math. 4021. Math 4021 can be challenged during the first week of any quarter. Successful passage of an examination at that time serves as a waiver of the course.
 - (2) passing an examination approved by the Department of Mathematics and the Department of Teacher Education.

Undergraduate program candidates must complete the mathematics proficiency requirement prior to placement in full-time student teaching.

Candidates for Multiple Subject recommendation by CSUH after completing a different teacher preparation program must complete the mathematics proficiency requirement prior to such recommendation. (It may be possible for such candidates to apply directly to the Commission for the additional credential, instead.)

Mathematics Education competency: Candidates for recommendation for the Multiple Subject Teaching Credential by CSUH must demonstrate competence in mathematics education. This requirement is included within the Multiple Subject professional preparation at CSUH. Candidates completing a different preparation program and seeking a Multiple Subject recommendation from CSUH must complete the requirement prior to recommendation. The candidate may elect approved coursework in the Department of Mathematics to meet this requirement after completion of a professional preparation program. (It may be possible to apply directly to the Commission for the additional credential, instead.)

These requirements are handled cooperatively by the Department of Mathematics and Teacher Education.

4. **Denial of Admission to the Program:**

A student may be denied admission to the Credential Program if:

- a. he fails to complete the required application procedures on time; *or*
- b. he has been convicted of a crime which bars the granting of a credential; *or*
- c. there are insufficient places in the program, *and*
- d. he is found by the faculty Admissions Committee to be deficient in one or more of the criteria above, or is found to be less likely than other applicants to be a successful teacher.

Grading Practices and Disqualification from the Program:

1. *Special Grading Practices:* The University has two grading systems: A, B, C, D, F; and CR/NC (credit, no credit). Under University policy the student is graded on the A-F system unless a specific request for CR/NC grades is made for each class at the beginning of the quarter with the Records Office. The Department of Teacher Education follows this policy *excepting* field supervision courses in the professional preparation programs which are graded as CR or NC. Under special conditions candidates may be given more than one quarter to complete difficult competency requirements. In such cases a grade of SP (satisfactory progress) is assigned until the requirement is completed.
2. *Disqualification:* A student who receives less than a "C" or "CR" grade in any course required in the professional preparation program or who fails to maintain a G.P.A. of 2.5 or better in any quarter in the program is subject to disqualification.

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 by the Department Admissions Committee and possible disqualification.

A student may be removed for cause from the professional preparation program at any time by the Chair of the Department of Teacher Education with the concurrence of the Dean of the School of Education.

For information about an appeal of a decision to deny admission or to disqualify from the professional preparation program, the student should contact the Department of Teacher Education.

Teaching Specialist Credential Preparation Programs

The Teacher Education Department offers programs for three Specialist Credentials under provisions of the Ryan Act.

The programs are:

1. *Reading Specialist Credential* program is designed for teachers and others who have a teaching credential and wish to specialize in reading instruction.
2. *Bilingual/Cross-Cultural Specialist Credential* program is designed for teachers and others who have a teaching credential and wish to specialize in the education of Mexican-Americans. (A Portuguese specialization is being developed.)
3. *Early Childhood Education Specialist Credential* program is designed for teachers and others who have a teaching credential and wish to specialize in the education of young children.

Details follow, under *Graduate Degree and Specialist Credential Programs*.

Community College Program

The Departments of Teacher Education and of Educational Psychology offer programs in teacher preparation and counselor training for individuals interested in a professional career in Community Junior Colleges and other post-secondary institutions.

Community College Instruction: The Community College Instructors program consists of the following courses and field work:

	<i>Units</i>
TEd. 6001. Seminar on the Community College	4
TEd. 5693. College Teaching	5
TEd. 5694. Seminar on College Teaching	3
Program Total	12

Admission Requirements:

1. Meet the graduate admission standards of CSUH.
2. Complete a "Request for Entry to Community College Programs" to the Department of Teacher Education.
3. Complete an interview with the Coordinator of Community College Programs.

Community College Counseling: The Community College Counselors program consists of the following:

1. Prescribed courses and electives in the Department of Educational Psychology leading to the Master of Science in Counseling.
2. Three quarters of field experience in a community college (EPsy. 6660, 6661, 6662).
3. Enrollment in community college student personnel seminars (EPsy. 6610, 6620, 6630).

Admission Requirements:

1. Meet the graduate admission standards of CSUH.
2. Meet the admission requirements of the Department of Educational Psychology.
3. Complete an interview with the Coordinator of Community College Programs.

The Master of Science in Education

A Master of Science Degree with three options is offered in the Department of Teacher Education. The options are:

1. *The Master of Science Degree in Education with an Option in Early Childhood Education* is designed to provide advanced preparation for teachers and administrators in preschool and primary grades.
2. *The Master of Science Degree in Education with an Option in Curriculum* is designed to provide advanced preparation for teachers within a specialized area such as mathematics education, children's literature, environmental education, and multicultural education. Individualized programs to fit special teaching needs may be developed based on the required core courses of the curriculum option.
3. *The Master of Science Degree in Education with an Option in Reading Instruction* is designed to provide advanced preparation in the teaching of reading at all levels of public school instruction.

Details follow under *Graduate Degree and Specialist Credential Programs*.

In-Service Professional Programs for Teachers

The Department is developing programs consisting of short sequences of courses treating specialized topics important to teachers. In general, these programs will consist of three or four courses to be offered in rotation, one per quarter. Such sequences are designed to develop professional skills for classroom teachers. At present, two such programs are available in regular coursework of the Department:

Literature in the Classroom (including basic courses in children's and adolescent literature and in multi-ethnic literature).

Environmental Education (outdoor education, school camping, field trips for studying the environment, etc.).

See the Department of Teacher Education for information about such programs.

GRADUATE DEGREE AND SPECIALIST CREDENTIAL PROGRAMS

PHILOSOPHY

The general aim of the Department's graduate programs, both degree and advanced credentials, is to provide to teachers or professionals engaged in work with children cohesive, sequential, practical and flexible programs. The purpose is to increase the effectiveness of graduates in their work in public and private schools or in agencies serving children. To achieve these goals the Department offers the Master of Science Degree in Education with program options in Curriculum, Early Childhood Education, and Reading Instruction. Each program has a basic core of required courses plus an elective component designed by the student in consultation with a faculty adviser. The elective component allows the student to take advantage of any previously completed work and apply it along with electives, to meet personal and professional goals, including a degree or credential.

The specialist credentials in Bilingual Education, Early Childhood Education and Reading are competency-based. Each student is individually evaluated and a program of study and development is designed to fit each student.

The Department provides academic advisers for all classified students. Students are urged to maintain regular contact with advisers especially if they plan to complete all requirements for a degree or credential within three or four academic terms.

The Department seeks to foster independence and responsibility in its students. *To this end the student is expected to be aware of all pertinent information in this Catalog, publications of the Dean of Graduate Studies and of the Department.* Moreover, the student is expected to initiate changes in status (advancement to candidacy), application for enrollment in individually supervised courses (thesis, project and any field work) the quarter before courses are taken, and to file other documents in a timely manner. Deadline dates are published in the Catalog and class schedules.

ADMISSIONS CRITERIA

Candidates for a master's degree or for a specialist credential program must have a baccalaureate degree from an accredited institution, an undergraduate over all grade point average of 2.5 (4 point scale) and a grade point average of 3.0 or better in all upper division work in their major field and in all post-baccalaureate work. Students must have a valid teaching credential and/or show evidence of successful teaching experience as determined by the Department. The requirement of teaching experience may be waived in Early Childhood Education or in other M.S. programs; but the student must petition in writing and provide evidence to the Department that previous experience and professional goals warrant a waiver of the requirement.

Specialist credential programs in Reading and Early Childhood Education require two years of teaching experience, as determined by the Department, in addition to a basic teaching credential.

A complete application for admission must be made to the University and to the Department before a student can be considered for classified status in the Department. A student with minor deficiencies may be admitted on a "conditionally classified" basis. A student in "non-objective" status may enroll in any course for which prerequisites are met. A list of "open" courses is published quarterly.

SPECIAL FACILITIES

The Department operates several facilities of special interest to graduate students. A splendidly equipped Reading Center is open and staffed to serve students, especially those in reading programs. The Environmental Education program houses a collection of resources which is steadily growing. The Student Teaching Center has a wide range of equipment, facilities, and instructional materials. The University houses one of the single largest collections of multicultural education materials in existence. This facility is supported by the Federal Government and is available to students and the community. The University Library has an excellent education collection.

CAREER OPPORTUNITIES

The largest proportion of the Department's graduate students are successful teachers seeking professional development or advancement into specialist roles. In the case of Early Childhood and Environmental Education programs the Department prepares for leadership roles in schools and agencies. It is not the intent of the Department to prepare supervisors or administrators, although the M.S. in Education, Reading Option, may also lead to the Supervision Credential. This variant is offered in conjunction with the Department of School Administration and Supervision.

RESEARCH OPPORTUNITIES

No systematic, sustained research programs are maintained by the Department. Graduate assistantships are usually available to M.S. candidates on a limited basis. Most research carried on by students and faculty is field-based.

MASTER OF SCIENCE IN EDUCATION

The Department offers the M.S. in Education with Options in Curriculum, Early Childhood Education and Reading.

Option in Curriculum

This option is designed to provide advanced preparation and special competencies for teachers at all levels of education from pre-school through the junior college level. Graduate study is directed toward particular areas of emphasis, such as children's literature, environmental education, mathematics education, or multicultural education. Programs to fit special needs may be developed, based on the curriculum option core, with the approval of the students' adviser, the department graduate coordinator or the graduate programs committee.

Option in Early Childhood Education

The Option in Early Childhood Education is designed to provide advanced training to persons who expect to direct programs in public and private school education, teach in community colleges or who take positions in government and community agencies charged with the education or welfare of young children. To this end, the program offers a core of advanced

courses covering the several strands of development (social, cognitive, psychomotor, language) and approved electives selected to meet the student's professional needs.

Option in Reading Instruction

The Option in Reading Instruction is tailored to upgrade the teaching of reading at all levels. Graduate study is available in the Option to regular classroom teachers, teachers of the educationally handicapped, special reading teachers, basic adult educators, community college reading instructors, and teachers of ethnic minorities. The program has a sequence of courses which cover developmental reading, diagnosis and correction of reading difficulties and clinical experience. Supporting electives from areas such as literature, psychology, linguistics, education, administration and supervision.

For students who seek a supervision credential, the Department cooperates with the Department of School Administration and Supervision to offer that credential. Contact an adviser or the Department of School Administration and Supervision for details.

M.S. Degree Requirements

The general requirements for the M.S. in Education follow.

1. *Advancement to Candidacy* includes: classified status; 12 units of applicable resident work with a GPA of 3.0 or better; completion of T.Ed. 6020. Research in Education; an approved program of study; recommendation by program faculty and approval by the graduate coordinator. The student initiates advancement to candidacy by filing a "Request to Establish Thesis/Project Committee" with the graduate coordinator.
2. *Completion of 45 units of Approved Graduate Work* provided: all units have been earned within 7 years; 32 units carry resident credit (13 may be transfer or extension); no fewer than 3 nor more than 6 units are for thesis or 5 for special project; at least 22½ units are in the 6000 series.
3. *Grade Point Average of 3.0* in all post-baccalaureate units, in all units taken at CSUH, and in all units offered as satisfying requirements of student's program.
4. *Completion of a Thesis* acceptable to the Department and the Dean of Graduate Studies or a Special Project acceptable to the Department.
5. *Completion of any specific requirements* of the particular option in which the student is enrolled.

External Degree

The Department offers the M.S. Degree in Education, Option in Curriculum, on an external basis (all off-campus). Students plan their programs around the curriculum core. Contact Professor Gerald Brown or the Office of Continuing Education for details. This program is currently offered in the Concord-Walnut Creek area of Contra Costa County.

The Program Option in Curriculum*Curricular Requirements*

- | | <i>Units</i> |
|---|--------------|
| 1. Completion of the following required core courses: (total 17-20) units. | |
| T.Ed. 6300. Foundations of Curriculum Development..... | 4 |
| T.Ed. 6301. Curriculum Practicum | 1 |
| T.Ed. 6700. Advanced Educational Psychology | 4 |
| T.Ed. 6701. Practicum in Thinking Processes | 1 |
| T.Ed. 6020. Research in Education | 4 |
| T.Ed. 6910. Theses <i>or</i> | 3-6 |
| T.Ed. 6899. Special Project | 3-5 |
| 2. Completion of 25-28 approved elective units in a curriculum area. Elective units will be selected with the assistance of a Graduate Adviser. | |

Electives for specialization in children's literature and reading	
Select 12-18 units:	<i>Units</i>
T.Ed. 5240. Children's Literature in Elementary Education.....	3
T.Ed. 5241. Literature for Adolescents.....	3
T.Ed. 5242. Teaching Multi-Ethnic Literature to Children	4
T.Ed. 6243. Critical Analysis and Selection of Literature for Children and Adolescents	4
T.Ed. 6245. Literature for the Young Child	4
Select A or B:	
A. T.Ed. 6230. Improving Reading in the Elementary School.....	3
T.Ed. 6231. Analysis of Reading Problems in the Elementary School....	3
T.Ed. 6232. Correction of Reading Problems in the Elementary School	3
B. T.Ed. 6240. Reading and Study in the Secondary School	3
T.Ed. 6241. Diagnosis of Reading Problems in the Secondary Schools ..	3
T.Ed. 6242. Remedial Reading Instruction in the Secondary Schools	3
Select additional electives by advisement.....	3-10
Core plus electives—Total	45
Electives for specialization in environmental education	
Select 15-19 units:	<i>Units</i>
T.Ed. 5913. Curriculum in Environmental Education	3
T.Ed. 6414. Organization of Resident Environmental Education Programs	4
T.Ed. 6415. Environmental Education Using the School Grounds and Community	4
T.Ed. 6416. Development of Environmental Education.....	4
T.Ed. 6417. Field Study in Environmental Education	4
Select additional electives by advisement.....	6-13
Core plus electives—Total	45
Electives for specialization in mathematics education	
Select 8-20 units:	<i>Units</i>
Math. 6010. Seminar in Teaching and Learning Elementary Mathematics	4
Math. 6021. Seminar in Diagnosis and Treatment of Learning Difficulties in Mathematics	4
Math. 6022. Practicum in Diagnosis and Treatment of Learning Difficulties in Mathematics.....	3
Math. 6040. Advanced Curriculum and Instruction in Secondary Mathematics.....	4
Math. 6900. Independent Study	1-4
Select mathematics courses by advisement	8-20
Select additional electives by advisement.....	0-12
Core plus electives—Total	45
Electives for specialization in multi-cultural education	
T.Ed. 6124. Advanced Multi-Cultural Education.....	4
Select additional courses by advisement.....	21-24
(Courses may be taken in appropriate departments of the University.)	
Core plus electives—Total	45
Electives for individualized program	
Electives approved by an adviser to meet student needs and objectives.....	25-28
Core plus electives—Total	45

The Program Option in Early Childhood Education

Curricular Requirements

1. Completion of the following core courses:	<i>Units</i>
T.Ed. 6020. Research in Education	4
T.Ed. 6125. Foundations of Early Childhood Education	4
T.Ed. 6140. Language Problems in Early Childhood Education	4
T.Ed. 6160. Cognitive Development in Early Childhood Education.....	4

T.Ed. 6180. Social and Psychomotor Development in Early Childhood Education	4
T.Ed. 6185. Field Study in Early Childhood Education <i>or</i>	
T.Ed. 6186. Seminar in Early Childhood Education	2
T.Ed. 6910. Thesis <i>or</i>	3-6
T.Ed. 6899. Special Project	3-5
	25-28

2. Completion of 17-20 units of Graduate Adviser approved electives selected from courses offered by the departments of Anthropology, Psychology, Human Development, Kinesiology and Physical Education, Educational Psychology, Speech-Drama, Sociology, and Teacher Education.

The Program Option in Reading Instruction

Curricular Requirements

1. Completion of the following required courses: (total 32-35 units)	<i>Units</i>
T.Ed. 6230. Improving Reading in the Elementary School.....	3
T.Ed. 6231. Analysis of Reading Problems in the Elementary School.....	3
T.Ed. 6233. Laboratory Practice in Correction of Reading Difficulties	6
T.Ed. 6250. Seminar in Reading	3
T.Ed. 6240. Reading and Study in Secondary School.....	3
T.Ed. 6241. Diagnosis of Reading Problems in Secondary Schools.....	3
S.A.S. 6410. Supervision and Curriculum Change.....	4
T.Ed. 6020. Research in Education	4
T.Ed. 6910. Thesis <i>or</i>	3-6
T.Ed. 6899. Special Project	3-5
<i>and either</i>	
T.Ed. 6232. Correction of Reading Difficulties in Elementary Schools <i>or</i>	
T.Ed. 6242. Remedial Reading Instruction in Secondary Schools.....	3
2. Completion of 10-13 units of approved electives selected from the following or others by consent of adviser:	<i>Units</i>
T.Ed. 6001. Seminar on the Community College	4
T.Ed. 6210. Nature and Theory of the Learning Process	3
T.Ed. 6220. Ethnic and Linguistic Factors in Reading.....	3
T.Ed. 6225. Instruction in Beginning Reading.....	3
T.Ed. 6234. Clinical Seminar in Reading.....	3
T.Ed. 6245. Literature for the Young Child	4
E.Psy. 6700. Advanced Educational Psychology.....	4
E.Psy. 6746. Learning Difficulties	4
T.Ed. 5010. Contemporary American Education	4
T.Ed. 5210. Seminar in Language Arts Teaching	3
E.Psy. 5021. The Exceptional Child	4
T.Ed. 5240. Children's Literature in Elementary Education.....	3
T.Ed. 5241. Literature for Adolescents.....	3
T.Ed. 5242. Teaching Multi-Ethnic Literature to Children	4
Engl. 5050. Teaching English in the Secondary School	2
T.Ed. 5830. Reading in Content Areas	3
Core plus Electives Total.....	45
3. Meet teaching experience as defined by department.	

Specialist Credentials

The Department offers three Specialist Credentials under the Ryan Act:

- Bilingual/Cross-Cultural Specialist Credential*
- Early Childhood Specialist Instructional Credential*
- Reading Specialist Credential*

The three credentials require a basic teaching credential and prepare the candidate for positions of leadership in the field. The credentials may be earned separately or in combination with an appropriate option of the M.S. in Education.

The Specialist Credentials are competency based programs and thus the listed courses serve as guides to the required areas of competency. Detailed competency requirements are available from credential advisers and the Department office. The Department has established procedures for meeting competencies and, when specified competencies are verified by previous experience or course work, corresponding course requirements are waived. Thus the minimum and maximum unit totals are expected to vary for individuals. The maximum number of units indicates what a candidate would have to take provided the candidate had no previous relevant experience or applicable course work. Both an "Entry" and "Exit" evaluation must be made; see the graduate coordinator for forms.

Program in Bilingual/Cross Cultural Specialist Credential with Optional M.S. in Education

The program prepares individuals to teach and provide leadership in school districts with bilingual populations. This particular program focuses on the Mexican-American child. Both the Specialist Credential and the M.S. in Education, Option in Curriculum, Multi-Cultural Education, may be earned concurrently. A minimum of thirteen units of coursework in residence is required for the credential. A program with a Portuguese emphasis is being developed.

Admissions Requirements

A candidate must:

1. Complete an application to the Department and the University;
2. Hold a baccalaureate degree from an accredited institution and have an undergraduate GPA of 2.5 or better;
3. Hold a valid teaching certificate and successful teaching experience as defined by the Department;
4. Demonstrate oral proficiency in Spanish; and
5. Provide evidence of satisfactory formal or informal experience with Mexican-American children.

Curricular Requirements: Mexican-American Emphasis

	<i>Units</i>
A. Culture	
Select by advisement from specified courses in Anthropology, Geography, History, Latin-American History, Human Development, Mexican-American Studies, Sociology, Spanish, and Teacher Education.....	8-12
	8-12
B. Professional Education and Teaching Methods	
T.Ed. 6300. Foundations of Curriculum Development.....	4
T.Ed. 6301. Curriculum Practicum	1
T.Ed. 6831. Teaching of Reading in Bilingual Settings.....	4
T.Ed. 6832. Bilingual Instructional Methods	4
T.Ed. 5038. Multicultural Education (waive for equivalence)	4
T.Ed. 6124. Advanced Multicultural Education.....	4
	17-21
C. Language	
Anth. 3860. Bilingualism in the U.S.	4
Engl. 3010. Modern English Grammar	5
Courses in Spanish depending on competency.....	0-24
	9-33
D. Professional Field Work	
T.Ed. 5615. Supervised Field Work I	5
T.Ed. 5616. Supervised Field Work II	5

MAS 4130. Barrio Projects (elective).....	1-4
(Apply for all field work the quarter prior to taking the course.)	10-14
Total for Credential only.....	44-80

Courses to be taken for the M.S. Degree in Education, Option in Curriculum, specialization in multicultural education, when the Credential and the Degree are taken concurrently:

	<i>Units</i>
E.Psy. 6700. Advanced Educational Psychology.....	4
T.Ed. 6701. Practicum in Thinking Processes	1
T.Ed. 6020. Research in Education	4
T.Ed. 6910. Thesis or	3-6
T.Ed. 6899. Special Project	3-5
Total for Credential and M.S.....	56-95

In addition, the candidate must meet all admission and degree requirements for the M.S. Degree in Education, Curriculum Option, not already met by the Specialist Credential.

Program in Early Childhood Instructional Specialist Credential with Optional M.S. in Education

The program prepares individuals to teach and/or provide leadership in public and private schools and agencies serving young children from birth through Grade 3. Both the Specialist Credential and the M.S. in Education, Option in Early Childhood Education, may be earned concurrently. Two years teaching experience is required for issuance of the credential. A minimum of thirteen units of work in residence is required for the credential.

Admission Requirements

A candidate must:

1. Complete application to the Department and the University;
2. Hold a baccalaureate degree from an accredited institution and have an undergraduate GPA of 2.5 or better; and
3. Hold a valid teaching certificate.

Curricular Requirements

	<i>Units</i>
I. Supervised Field Work	
T.Ed. 5187. Field Assessment I	4
T.Ed. 5188. Field Assessment II.....	5
(Apply for all field work the quarter prior to taking the course.)	9
II. Professional Preparation	
A. Based on assessment of competencies and by advisement select from list or other approved electives.	
Art 4310. Foundations of Artistic and Aesthetic Growth	4
Biol. 3031-32. Nature Study	4-4
Biol. 4020. Field Natural History	4
Dram. 3610. Interpretation of Children's Literature and Story Telling.....	3
Dram. 3650. Creative Dramatics	3
Mus. 5430. Music in the Elementary School.....	3
P.E. 3235. Creative Dance for Children	3
T.Ed. 5069. Home and School	4
T.Ed. 5135. Early Childhood Curriculum Materials Instruction	4
T.Ed. 5230. Math Instruction in Early Childhood Education.....	3
T.Ed. 5701. Poverty and Learning.....	4
T.Ed. 5710. Administration and Organization of Early Childhood Programs	4
T.Ed. 5913. Curriculum in Environmental Education	3
T.Ed. 6225. Instruction in Beginning Reading.....	3
T.Ed. 6245. Literature for the Young Child	4

T.Ed. 6415. Environmental Education Using the School Grounds and Community	4
	<u>12-20</u>
B. Required Core Courses	
T.Ed. 6125. Foundations of Early Childhood Education	4
T.Ed. 6140. Language Problems in Early Childhood Education	4
T.Ed. 6160. Cognitive Development in Early Childhood Education	4
T.Ed. 6180. Social and Psychomotor Development in Early Childhood Education	4
	<u>16</u>
C. Meet the teaching experience requirement as defined by the Department.	
Total for Credential only	37-45
Courses required for the M.S. Degree in Education, Option in Early Childhood Education, when the Credential and the Degree are taken concurrently:	
	<i>Units</i>
T.Ed. 6185. Field Study in Early Childhood Education.....	}
<i>or</i>	
T.Ed. 6186. Seminar in Early Childhood Education.....	2
T.Ed. 6020. Research in Education	4
T.Ed. 6910. Thesis.....	3-6
<i>or</i>	
T.Ed. 6899. Special Project	3-5
	<u>9-12</u>
Note: T.Ed. 5187 and T.Ed. 5188 are not applicable to the M.S. Other courses taken to meet competencies are applicable to the M.S. provided they are approved by the Candidate's Graduate Adviser.	
Total for the Credential and M.S.	45-53

In addition, the Candidate must meet all admission and degree requirements for the M.S. in Education, Early Childhood Education Option, not already met by the Specialist Credential.

Program in Reading Specialist Credential with Optional M.S. in Education

The program prepares candidates for the Reading Specialist Credential. The program's aim is to develop the knowledge and skills of the classroom teacher of reading and to prepare teachers for leadership roles in reading. The program allows students to select concentrations in Human Development, English, Educational Psychology, and School Administration and Supervision provided the M.S. degree is not opted within the 45 units. Two years teaching experience is required for issuance of the credential. A minimum of twelve units in residence is required for the credential.

Admission Requirements

A candidate must:

1. Complete an application to the University and the Department;
2. Hold a baccalaureate degree from an accredited institution with an undergraduate GPA of 2.5 or better and a GPA of 3.0 or better on all applicable post-baccalaureate work;
3. Hold a valid teaching certificate or the equivalent; and
4. Evidence successful teaching experience as determined by the Department.

Curricular Requirements

I. Core Program	<i>Units</i>
A. Professional Preparation	
T.Ed. 6230. Improving Reading in the Elementary School.....	3
T.Ed. 6231. Analysis of Reading Problems in the Elementary School.....	3

T.Ed. 6232. Correction of Reading Difficulties in Elementary Schools.....	3
<i>or</i>	
T.Ed. 6242. Remedial Reading Instruction in Secondary Schools.....	3
T.Ed. 6240. Reading and Study in Secondary Schools.....	3
T.Ed. 6241. Diagnosis of Reading Problems in Secondary Schools.....	3
T.Ed. 6210. The Nature and Theory of the Reading Process.....	3
T.Ed. 6220. Ethnic and Linguistic Factors in Reading Instruction.....	3
T.Ed. 6250. Seminar in Reading or	
T.Ed. 6234. Clinical Seminar in Reading.....	3
	<u>24</u>

B. Field Experience	
T.Ed. 6233. Laboratory Practice in Correction of Reading Difficulties.....	6
T.Ed. 6251. Field Experience in Reading	3
(Apply for all field experience the quarter prior to taking the course.)	
	<u>9</u>

C. Literature Methods	
Select one course	
T.Ed. 5240. Children's Literature in Elementary Education.....	3
T.Ed. 5241. Literature for Adolescents.....	3
T.Ed. 5242. Teaching Multi-Ethnic Literature to Children	4
T.Ed. 6245. Literature for the Young Child	4
	<u>3-4</u>
Total: Core program	36-37

II. Program Concentration	
Select one concentration	
	<i>Units</i>
A. Literature: Courses from English or Teacher Education emphasizing content and methods	8-9
B. Educational Psychology: Courses from Educational Psychology relating to special education, clinical psychology, or advanced learning theory	8
C. Human Development: Courses from the Department of Human Development related to knowledge of development from infancy to adulthood and effects upon reading behavior	8-9
D. Curriculum Development: Courses from the Departments of School Administration and/or Teacher Education bearing on contemporary curricula in reading	8-9
Total for Credential.....	44-45

The Specialist Credential plus the M.S. in Education

To meet requirements of the Specialist Credential and the degree the student will:

	<i>Units</i>
1. Complete the Core Program.....	36-37
2. T.Ed. 6020. Research in Education.....	4
3. T.Ed. 6910. Thesis or.....	3-6
4. T.Ed. 6899. Special Project.....	2-5
5. Electives	0-2
Total for Credential and M.S.....	45-47

In addition the student must meet all admission and degree requirements for the M.S. in Education, Reading Instruction Option, not already met by the Specialist Credential.

UNDERGRADUATE COURSES

1900. Speed Reading (4)

Techniques and practice in ways of improving speed and comprehension of reading in a range of subject areas. Four hrs. lect./disc. (F,W,Sp)

1920-1999. Directed Group Study (1-4)

4030. Tutor Techniques (3)

Techniques for tutoring students at all levels, pre-school through grade 12. Students must actually tutor as part of class assignment. Two hrs. lect., 2 hrs. act. (F,W,Sp)

4310. Foundations of Artistic and Aesthetic Growth (4)

Relationship of art experience for young children in intellectual, social and emotional growth through communication and self-expression in varied art media. Emphasis on use of materials and expressive skills designed to encourage and understand the creative expression of young children. *Not open to students who have taken Art. 4310.* Prerequisite: senior or graduate standing or consent of instructor. Two hrs. lect., 4 hrs. act. (Y)

4400. The Chicano and the Schools (4)

The Chicano's experience in American education from preschool through high school with emphasis on the solution of the problems besetting his emotional, intellectual and social growth. Prerequisite: Senior or Graduate standing. (Y)

4850. Black Educator in the Public School (4)

An analysis of projected attitudes and expressed aspirations of black teachers in public schools and the possible effects on the education of students from ethnic backgrounds. Cross-listed as Bl.St. 4850. (Y)

4900. Independent Study (1-4)

4920-4999. Directed Group Study (1-4)

POST-BACCALAUREATE COURSES**5002. Teaching Health Education (2)**

Covers State of California requirements in content and methods of health education for grades K-12. (A)

5010. Contemporary American Education (4)

A critical analysis of relationships between major social and historical developments and American education, emphasizing goals, purposes, scope and functioning of elementary and secondary education. Meets credential requirements in sociological or historical foundations of education. Four hrs. lect./disc. (Y)

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. Concurrent enrollment in public school laboratory. Three hrs. lect./disc. (Y)

5022. Psychological Foundations of Education (Secondary) (4)

Research and theory in the teaching-learning process specifically applied to adolescent youth; individual differences and their development; learning theory applied to the teaching of specific school subjects; evaluation of classroom learning; problems of adolescence. Screening course for credential candidates. Four hrs. lect./disc. (Y)

5038. Multiculture 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. Prerequisite: TEd. 5010. Four hrs. lect./disc. (Y)

5069. Home and School (4)

Dynamics of family, pupil-teacher, teacher-parent, and pupil-pupil relationships, including methods and materials of family counseling, working with parent groups, parent conferences, home visits and problems of home and school. Prerequisite: teaching credential or consent of instructor. Four hrs. lect./disc. (Y)

5100. Evaluation in Education (3)

Principles, techniques, and current practices of evaluation in schools. Relationship to curriculum; current practices in tests and measurements. Prerequisite: basic educational psychology course and TEd. 5800 series or equivalent. Two hrs. lect./disc., 2 hrs. act. (Y)

5187. Field Assessment I (4)

Supervised field work to assess competencies in a field setting. Prerequisite: Valid basic teaching credential. Verified experience in early childhood teaching or T.Ed. 6185.

5188. Field Assessment II (5)

Supervised field work to complete and certify achievement of competencies for specialist credential in Early Childhood Education. Prerequisite: Field Assessment I.

5210. Seminar in Language Arts Teaching (3)

Consider ways to improve the teaching of language, literature, and composition in the elementary classroom. Includes application of principles of linguistics and inductive teaching techniques. Prerequisites: teaching experience, TEd. 5800 series or equivalent, or permission of instructor. Three hrs. seminar. (Y)

5220. Seminar in Elementary School Social Science (3)

Analysis of current developments in elementary school social science programs emphasizing intensive investigation of program goals, teaching strategies including inquiry processes, instructional materials and evaluation procedures. Study of scientific research in the field. Prerequisite: teaching experience. Three hrs. seminar. (Y)

5230. Math Instruction for Early Childhood Education (3)

Examination of children's ability to formulate math concepts. A survey of mathematics curricula for primary grades. Analysis of instructional materials. Prerequisites: Math. 4021 or consent of instructor. Three 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. (A)

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 Multi-Ethnic Literature to Children (4)

Procedures for teaching multi-ethnic literature to children. Focuses on Black, California-Mexican, and Indian literature. Includes use of literature on human relations. Compositions and outside projects required. Prerequisite: consent of instructor. Four hrs. lect./disc. (Y)

5251. Audiovisual Methods and Materials (3)

Selection, utilization and evaluation of audiovisual methods and materials in the teaching-learning process; operation of audiovisual equipment. Satisfies the Audiovisual requirement for standard teaching credentials. Prerequisite: teaching experience or permission of instructor. One hr. lect./disc., 4 hrs. act. (Y)

5270. Secondary School Curriculum (4)

Analysis of secondary school curriculum: practices, trends, and issues; roles of the secondary teacher, student, parent, administrator, supervisor, and counselor; current practices and techniques in measurement related to curriculum improvement. A screening course for credential candidates. Prerequisite: graduate standing and acceptance into the Secondary Credential program. Four hrs. lect./disc.

5275. Teaching and Curriculum Planning in Middle Schools (3)

Analysis of middle school programs, grades 5-8; characteristics of students and influences affecting their behavior; roles of teacher in curriculum selection, development, and implementation. Prerequisite: Teaching credential or consent of instructor. (Y)

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 in different sections of the program. Each element is based upon the achievement of a specified set of professional teaching competencies. The elements include regular coursework or fieldwork, 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.

5301. Teaching and Learning (4)

Principles of learning applied to selection, organization, and teaching of curricular content. Philosophies and trends in education, past and present. Four hrs. lect., disc. (A)

5304. Professional Education: Intern Teaching Laboratory (2)

Emphasis on preparing and pre-testing materials for teaching assignment with students in a classroom setting. Concurrent registration in TEd. 5305 required. Six hrs. supervised fieldwork. (Su)

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. (A)

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. Three hrs. lect./disc. (A)

5315. Professional Responsibilities (2)

Professional problems. Rights and responsibilities of teachers and of students. Self-assessment and self-direction for continuing professional growth. Two hrs. lect./disc. (F,W,Sp)

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. Three hrs. lect., disc. (F)

5320. Reading A: Theory, Content, Basic Programs (3)

Development of reading and communication skills. Emphasis on theory, content mastery and methods of basic program. Three hrs. lect./disc. (A)

5326. Reading B: Classroom Problems (2)

Diagnosing and correcting individual student difficulties in the classroom setting as related to development and communication skills. Learning to select appropriate reading materials. Prerequisite: T.Ed. 5320 or permission of instructor. Two hrs. lect./disc. (A)

5330. Student Teaching A (4)

Emphasis on planning for and managing instruction. Student teaching under supervision of classroom teacher. (F,W,Sp)

5331. Student Teaching B (3)

Emphasis on instruction in the basic content areas for subject specialization. (For Single Subject Credential candidates.) For undergraduate program. Prerequisite: T.Ed. 5330 or permission of instructor. Student teaching half-day under direct supervision. (F, W, Sp)

5332. Student Teaching C (3)

Emphasis on instruction in the basic content areas for subject specialization. (For Single Subject Credential candidates.) For undergraduate program. Student teaching half-day under direct supervision. (F, W, Sp)

5335. Student Teaching D (6)

Emphasis on instruction in basic content areas of self-contained classrooms. (For Multiple Subjects Credential candidates.) For undergraduate program. Student teaching under direct supervision. (A)

5336. Student Teaching E (10)

Emphasis on integrating instruction and meeting individual differences. For undergraduate program. Student teaching all day under direct supervision. (A)

5337. Student Teaching B (4)

Emphasis on instruction in the basic content areas for subject specialization. (For Single Subject Credential Candidates.) For post-baccalaureate program.

5338. Student Teaching C (4)

Emphasis on instruction on the basic content areas for subject specialization. (For Single Subject Credential Candidates.) For post-baccalaureate program.

5339. Student Teaching D (8)

Emphasis on instruction in basic content areas of self-contained classrooms. (Multiple Subject Credential Candidates.) For post-baccalaureate program.

5340. Intern Practicum (4)

Supervised participation in public schools for candidates who have been contracted as interns in the public schools for the academic year. Concurrent registration in T.Ed. 5301 and T.Ed. 5320 required.

5341. Intern A (7)

Full-time paid teaching in public school under supervision of CSUH faculty. Emphasis on planning for and management of instruction. Introduction to diagnostic techniques of student achievement.

5342. Intern B (7)

Full-time paid teaching in public school under supervision of CSUH faculty. Emphasis on instruction content areas of self-contained classrooms.

5343. Intern C (7)

Full-time paid teaching in public school under supervision of CSUH faculty. Emphasis on integrating instruction.

5346. Student Teaching E (13)

Emphasis on integrating instruction and meeting individual differences. For post-baccalaureate program.

5420. Strategies and Materials for the Development of Visual Expression (4)

Introduction to the perceptual, aesthetic, and creative development of children. Studio experiences for prospective teachers of upper elementary art. *Not open to students who have taken Art. 5320.* Prerequisite: senior or graduate standing or consent of instructor. Two hrs. lect., 4 hrs. act. (Y)

5450. Special Studies in the Teaching of Art (3)

Fundamentals of teaching art in the secondary schools. Study of approved practices of art education at this level. Required of all secondary credential candidates in art. *Not open to students who have taken Art. 5350.* Prerequisite: senior or graduate standing or consent of instructor. Two hrs. lect., 2 hrs. act.

5615. Supervised Field Work I (5)

Supervised teaching in a bilingual setting. Prerequisites: Admission to program. (F,W,Sp)

5616. Supervised Field Work II (5)

Supervised teaching in bilingual setting with emphasis on the teacher's role as a planner and organizer of bilingual curricula. Prerequisite: T.Ed. 5615. (F,W,Sp)

5693. College Teaching (5)

Supervised practice teaching in a community junior college. Prerequisites: T.Ed. 6001 or equivalent and departmental approval; concurrent enrollment in T.Ed. 5694 required. (F,W,Sp)

5694. Seminar on College Teaching (3)

Analysis and application of teaching-learning strategies appropriate to the diverse student population and curriculum of the community colleges. Prerequisites: TEd. 6001 or equivalent and Department approval; concurrent enrollment in TEd. 5693 required. (F,W,Sp)

5695. Student Teaching in the Secondary School, Phase I (5)

Student teaching under the supervision of a public school teacher and a member of the CSUC faculty. May be repeated for credit. Prerequisite: approval of the Department. Concurrent enrollment required in TEd. 5696.

5696. Student Teaching Seminar, Secondary School, Phase I (3 each)

Application of academic background and instructional theory to practical teaching situations. Meetings between student teachers and college supervisors held on campus or in public schools. Concurrent registration in TEd. 5695 required. May be repeated for credit. (Y)

5697. Student Teaching in the Secondary School, Phase II (5)

Student teaching under the supervision of a public school teacher and a member of the CSUH faculty. Prerequisite: TEd. 5695, 5696. Concurrent enrollment required in 5698. May be repeated for credit. (Y)

5698. Student Teaching Seminar, Secondary Schools, Phase II (3 each)

Applications of academic background and educational theory to practical teaching situations. Meetings between student teachers and college supervisors held on campus or in public schools. Concurrent registration in TEd. 5697 required. May be repeated for credit. (Y)

5701. Poverty and Learning (4)

Understanding problems of language development, acculturation, community life, and motivation of children from socially and educationally impoverished backgrounds. Introducing innovation and modification of classroom organization and management to increase adaptation to school demands. Prerequisite: consent of instructor. Four hrs. lect./disc. (Y)

5710. Administration and Organization of Early Childhood Programs (4)

Principles guiding practices in administration and supervision. Patterns of nursery school organization. Problems of staff development, personnel practices, interpretation of school programs to parents and community. Policies governing management of records, purchasing equipment and supplies, and general practices. Prerequisite: Consent of instructor. Four hrs. lect./disc. (Y)

5830. Reading in Content Areas (3)

Specific methods, materials and approaches for understanding and improving reading processes and comprehension of content in subject matter; developmental reading skills; identification of reading problems; and prescriptions for resolving reading difficulties in content areas in grades 4-12. (Y)

5831. Reading in the Elementary School (3)

Materials and methods of reading development including phonetics; emphasis on group and individual techniques. Prerequisite: admission to preliminary candidacy in the Elementary Teaching Credential program, concurrent registration in Public School Lab, or student teaching. Two hrs. lect./disc., 2 hrs. act. (Y)

5913. Curriculum in Environmental Education (3)

Explores use of the environment in school curricula. Includes demonstrations of methods of teaching out-of-doors; individual and group projects. Introduction to outdoor education programs. Two hrs. lect./disc., 2 hrs. act. (Y)

5900. Independent Study (1-4)**5920-5999. Directed Group Study (1-4)****GRADUATE COURSES****6000. History and Philosophy of the School in America (4)**

Historical and philosophical development of selected educational ideas and practices. Impact on decision making regarding: school support, curriculum and instruction, and organization. (Y)

6001. Seminar on the Community College (4)

A critical examination of the Community College; its history, philosophy, students and curricula. Concurrent problems and practices will be analyzed in terms of contemporary goals of higher education. (Y)

6010. Seminar in Teaching and Learning Elementary 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. Prerequisite: consent of instructor. (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. Prerequisite: consent of instructor. (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. (Y)

6124. Advanced Study in Multiculture 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. (Y)

6125. Foundations of Early Childhood Education (4)

Systematic application of development and learning theories to instructional strategies for young children; analysis of family and community impact on young children. Admission restricted to graduate students. (F, Sp)

6140. Language Problems in Early Childhood Education (4)

Examination of cultural, perceptual, and physical factors affecting oral and written language development in children, e.g., bilingual and non-standard English difficulties of children. Analysis of non-pathological speech difficulties. Planning of programs to meet communication problems. Restricted to graduate students. (F, Sp)

6160. Cognitive Development in Early Childhood Education (4)

Application of tests of developmental skills, Piagetian tasks, clinical interview techniques, and behavioral analysis in identifying cognitive stages in young children; analysis of influences on social, emotional, and physical development on cognitive growth for designing educational programs. Restricted to graduate students. (Y)

6180. Social and Psychomotor Development in Early Childhood Education (4)

The interaction of influences of family, community, and program on the emerging self-concept. Role of the School in guiding social, emotional, and physical development of young children. Restricted to graduate students. (W,Su)

6185. Field Study in Early Childhood Education (2)

Field study of children. Use of evaluation techniques, e.g., developmental scales, behavior analysis records, and sociometry. Preparation of profiles of developmental tasks for specific program planning. Concurrent registration in any first course taken from the core of the program. (A)

6186. Seminar in Early Childhood Education (2)

Use of evaluation techniques and preparation of profiles of developmental tasks. Students enrolling in this course cannot receive credit for T.Ed. 6185. Prerequisites: Student must be in a work assignment grade 3 or below. (F, W, Sp)

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. (F)

6220. Ethnic and Linguistic Factors in Reading Instruction (3)

Cultural differences, language habit patterns. Reading instruction criteria for linguistically different learners. Ethnic, socio-economic, linguistic variables related to reaching achievement. Understanding structure of English language. Prerequisites: Graduate standing and Engl. 3005 or equivalent. (Sp)

6225. Instruction in Beginning Reading (3)

Identification of special problems in teaching and supervision of beginning reading. Survey of research and experiments applicable to current classroom practices. Prerequisites: teaching experience and consent of instructor. (Y)

6230. Improving Reading in the Elementary School (3)

Development of reading programs and instruction; materials and techniques for high, average and low achievers in regular classrooms. Lectures, demonstrations, materials production. Prerequisites: teaching experience, T.Ed. 5800 series or equivalent, or permission of instructor. (F, W)

6231. Analysis of Reading Problems in the Elementary School (3)

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. Prerequisites: T.Ed. 6230 and consent of instructor. (W,Sp)

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. (Sp)

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. (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.

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. (F, W)

6241. Diagnosis of Reading Problems in Secondary Schools (3)

Methods, materials for diagnosing reading problems of secondary school students. Discussion, interpretation, application of individual and group tests. Includes analysis of district-wide testing programs. Prerequisite: T.Ed. 6240. (W)

6242. Remedial Reading Instruction in Secondary Schools (3)

Advanced methods, materials for correction of reading difficulties of secondary school students. Implementing individual and group techniques. Appropriate for organizing remedial programs. Includes case study discussion. Prerequisites: T.Ed. 6241 and consent of instructor. (Sp)

6243. Critical Analysis and Selection of Literature for Children and Adolescents (4)

Offers teachers procedures for the analysis, criticism and selection of literature for children and adolescents. Surveys and reviews media and book selection techniques related to basic criteria for good literature. Prerequisites: T.Ed. 5240 and T.Ed. 5241. (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)

6250. Seminar in Reading (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. Prerequisite: T.Ed. 6020 (F,Sp)

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)

6300. Foundations of Curriculum Development (4)

(See SAS 6300 for course description.)

6301. Curriculum Practicum (1)

Laboratory experiences in school and community instructional resource and learning centers. (F, W, Sp)

6414. Organization of Resident Environmental Education Programs (4)

Problems and solutions for implementation, e.g., site, staff, health, finance, permission. Preparation, program, and classroom follow-up. Overnight field trip (fee about \$10.00). Prerequisite: T.Ed. 5913 or consent of instructor. (W)

6415. Environmental Education Using the School Grounds and Community (4)

Use of school sites and resources for instruction. Nature areas, gardens, parks, paved areas, and lawn furnish a laboratory for discovery and inquiry learning. Prerequisites: T.Ed. 5913, T.Ed. 6414 or consent of instructor. (Sp)

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. 5913, 6414 or 6415 and consent of instructor. (W)

6417. Field Study in Environmental Education (4)

Students conduct a resident environmental education program with children in an outdoor center. Participants meet regularly with supervisors to organize and evaluate their experiences in leadership. Prerequisites: T.Ed. 5913, 6414, 6415, or 6416 and consent of instructor. (Sp or Su)

6700. Advanced Educational Psychology (4)

(See EPsy. 6700 for course description.)

6701. Practicum in Thinking Processes (1)

Laboratory work in cognitive, affective, or psychomotor domains in settings appropriate to learning. (F, W, Sp)

6831. Teaching of Reading in Bilingual Settings (4)

Methods of teaching reading in bilingual settings with application of Spanish phonetics. Emphasis on group and individual techniques. Prerequisites: Sp. 2485 or permission of instructor. (F)

6832. Bilingual Instructional Methods (4)

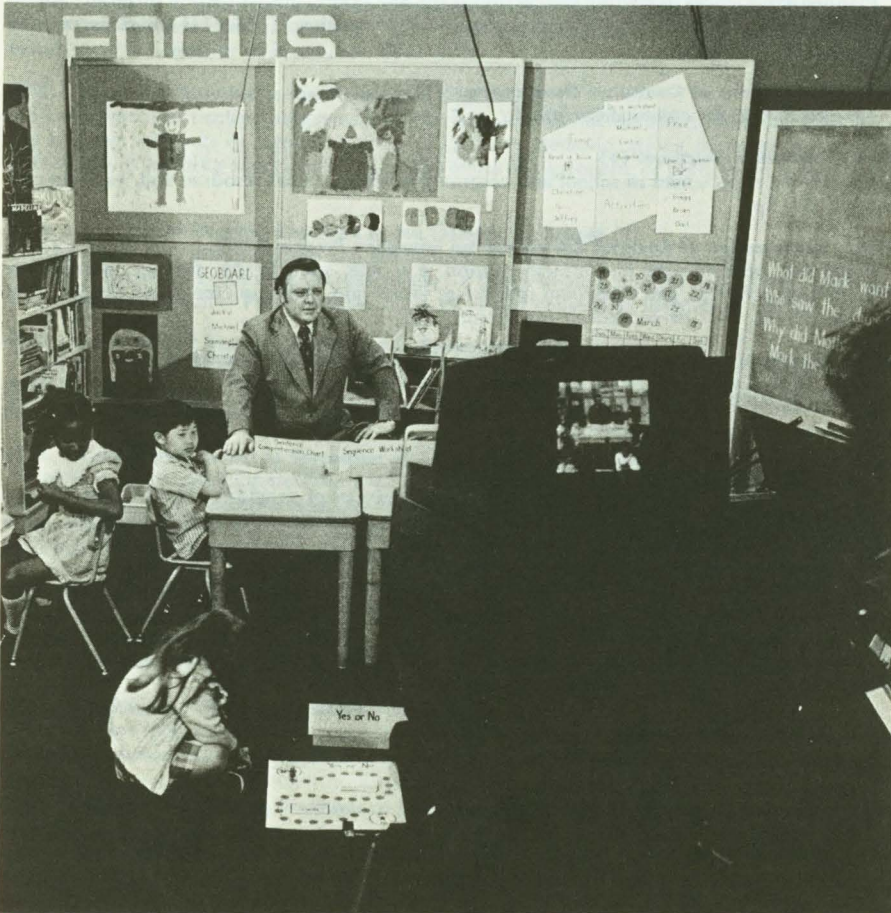
Bilingual education in the U.S. with an emphasis on the examination of current curriculum models and processes. The examination and selection of materials used in bilingual classrooms and the teaching of English. Prerequisite: Consent of instructor. (W)

6899. Special Project (2-5)

Students must enroll for at least three units. No more than five units can be taken over two quarters. Special project must be completed within two years of first enrollment. Prerequisites: classified status; departmental approval. (A)

6900. Independent Study (1-4)**6910. Thesis (1-6)**

Supervised thesis. Students may enroll for one or more units per term to a minimum total of three units and a maximum total of six units. Prerequisite: T.Ed. 6020. (A)

6920-6999. Directed Group Study (1-4)

URBAN STUDIES

(Urban Studies Committee, Interdisciplinary Programs)

Professors: Harry E. Allison, Bernard C. Hennessy, Elizabeth D. Huttman, Harry A. Nimmo

Associate Professors: Richard G. Ames, William A. Bullough (Chair), John Lier, John A. Montgomery

MINOR IN URBAN STUDIES

The purpose of the Minor in Urban Studies is to provide a recognized and academically sound supplemental program of study for students in various majors who are interested in the problems and potential of the city or who intend to pursue urban-oriented careers. It furnishes a multi-disciplinary introduction to the systematic investigation of urban life and the urban environment. Students are able to avail themselves of the considerable expertise on campus in a coordinated fashion, under the guidance of Urban Studies advisers. The minor is not intended as a substitute for the professional training which is the function of the major departments. No more than 12 units in a single department may be applied to the Minor in Urban Studies.

I. Core (14-17 units)

1. 12 units from the following

Anth. 3350
Geog. 3330
Hist. 3562
Po.Sc. 3130
Soc. 4450

2. Field course, independent study, or supervised research in urban studies selected from available courses with the approval of an Urban Studies adviser (2-5 units)

II. Electives (20-24 units)

At least five courses must be selected from the following

Anth. 3350
Art 4061, 4062
Art 3074 or 4063
Econ. 3500
Geog. 3330, 3335
Hist. 3561, 3562
MAS 4315
NAS 4200
Po.Sc. 3130
Pu.Ad. 4800
Rec. 4400
Soc. 4450

A maximum of two appropriate courses not listed above may be taken for elective credit in the minor with the approval of an Urban Studies adviser.

WESTERN HERITAGE

(Western Heritage Committee, Interdisciplinary Programs)

Professors: Scott E. Edwards, Theodore Roszak (Chair), Morton Rosenbaum

Associate Professors: William J. Langan, John Morby, Helen Schulak

GENERAL INFORMATION

Western Heritage presents students with an opportunity to fulfill General Education requirements in Humanities, Social Science, and Basic Subjects as part of a unified course of study. It explores major themes, ideas, and issues in European and American culture. Instructors from several departments teach the course as a team, cooperating in both the lecture and discussion sections to develop an interdisciplinary understanding of the materials under study.

Each quarter can be taken *separately* for General Education credits.

Upper division students may use Western Heritage to fulfill their upper division general education requirement.

In addition to the credits listed below, students who complete the entire sequence G.S. 1001-2-3 will receive credit for one course (4 units) in Basic Subjects. This will serve as the equivalent of English 1001 in fulfillment of the written composition requirement for those needing this credit. Students who already have credit for written composition may count these units toward the remainder of their Basic Subjects requirement.

All General Education credits in Western Heritage may be transferred to other institutions.

The following is the distribution of General Education credits in Western Heritage.

Completion of the full Western Heritage sequence (G.S. 1001, 1002, 1003) counts as:

- One course (4 units) in Humanities
- One course (4 units) in Social Science
- One course (4 units) in Basic Subjects

(Equivalent of English 1001 for students requiring credit in Written Composition; others may apply units to remainder of the Basic Subjects requirement.)

Completion of any two courses in the sequence counts as:

- One course (4 units) in Humanities
- One course (4 units) in Social Science

Completion of any one course in the sequence counts as:

- One course (4 units) in Humanities

This sequence does not satisfy the code requirements in U.S. History and institutions.

The second sequence of the course (General Studies 1101, -2, -3) will not be offered during 1978-79.

COURSES

1001. In Search of the Self (4)

A survey of the literature of self-understanding, as reflected in western drama, philosophy, autobiography, and the novel from the age of Socrates to the present day. One hr. lect., 3 hrs. seminar. (F)

1002. The Experience of God (4)

A critical exploration of western religious classics, with special emphasis on the old and new testaments and contemporary studies of religious experience. One hr. lect., 3 hrs. seminar. (W)

1003. The Ideal of Justice (4)

Issues of duty, freedom, revolution, and individual rights as presented in political theory and in major literary works of the western world. One hr. lect., 3 hrs. seminar. (Sp)

1101. Reason and Revolution (5)

The scientific revolution of the 17th century and its impact on the philosophy, religion, art, and politics of the early modern period, with special attention to the revolutionary ideologies and movements of the late 18th century. Two hrs. lect., 3 hrs. seminar. (Will not be offered in 1978-79)



1102. Romanticism, Realism, and Evolution (5)

The Romantic response to the scientific revolution. The development of alternatives to the mechanistic worldview. The impact of Darwin's biology on all aspects of 19th century culture. The rise of "Scientific Realism" in art, philosophy, and literature. Two hrs. lect., 3 hrs. seminar. (Will not be offered in 1978-79)

1103. Modern Man in Search of a Soul (5)

The response of contemporary culture to an "Age of Anxiety." The influence of the new physics and the new biology upon religious and ethical thought. The quest for meaning and value in the universe created by modern science. Two hrs. lect., 3 hrs. seminar. (Will not be offered in 1978-79)



WOMEN'S STUDIES

(Women's Studies Committee, Interdisciplinary Programs)

Professors: Georgia Babladelis, Marilyn J. Blawie, Phyllis J. Brock

Associate Professors: Helen C. Meyer, Judith M. Stanley, Emily Stoper (Chair), Joan S. Thomas

Assistant Professors: Annelise G. Anderson, Margaret-Mary Franz

Librarian: Melissa M. Rose

MINOR IN WOMEN'S STUDIES

The Minor in Women's Studies is intended to increase a student's knowledge, interest, and appreciation of the needs, contributions, problems and aspirations of women. Advisers are available in the Departments of History, Management Sciences, Physical Education, Political Science, Psychology, Sociology, Teacher Education, and the Library. In the program described below, no more than 8 units in the major department, nor more than 8 units of Lower Division courses may be applied to the Minor.

A. Required courses (8 units)

WoSt. 3000. Women in the Western World

WoSt. 4000. Senior Seminar in Women's Studies

B. Electives in Women's Studies (8 units)

Two courses with special reference to the status and problems of women selected from:

Hist. 3571. Women in American History

Po.Sc. 3340. Political Status of Women

Po.Sc. 3412. Women in the Law

Psyc. 3410. The Feminine Perspective

C. Electives in related fields (14 units minimum) selected with an adviser in Women's Studies from the following list:

Hist. 3571, Po.Sc. 3412, or 3340 if not used to complete requirement B above.

Anth. 3110. Primate Social Behavior

Anth. 3400. Social Anthropology

Anth. 3460. Culture and Personality

Anth. 3740. Cross Cultural Child Rearing

Anth. 3890. Shamanism

Biol. 3040. Evolution of Sex

Biol. 4160. Human Genetics

Engl. 3710. Medieval Literature

Engl. 4720. Mythology

Engl. 4832. British Novel 1800 to 1914

Hist. 3535. American Social History to 1865

Hist. 3536. American Social History since 1865

Hist. 4710. History and Trends in Nursing

HDev. 2001. Human Development in Contemporary Society

HDev. 3800. Human Development and Interaction

Phil. 3510. Human Rights and Social Justice

P.E. 4720. Sport in Contemporary Society

Po.Sc. 3340. Political Status of Women

Po.Sc. 3411. Law and the Poor

Psyc. 1500. Survey of Human Development

Psyc. 3500. Social Psychology

Psyc. 4420. Developmental Psychology

Soc. 3200. Introduction to Population Analysis

Soc. 3310. Current Sociological Theory

Soc. 3410. Sociology of the Family

Soc. 3415. Sociology of the Afro-American Family

Soc. 3416. Sociology of the Mexican-American Family

Soc. 3420. Social Inequality

Soc. 3430. Comparative Society

Soc. 3500. Social Psychology

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- Soc. 3700. Introduction to Social Service
- Soc. 3710. Social Policy
- Soc. 3730. Juvenile Delinquency
- Soc. 3745. Social Deviance
- Soc. 4440. Sociology of Industry and Technology
- Soc. 4515. Social Change and Social Movements
- Spch. 4800. General Semantics

Other Elective Courses

Other elective courses (with appropriate content) may be approved by the Women's Studies Committee as they are developed by Departments. In addition, appropriate D.G.S. and General Studies courses may be applied to B and C above with approval of the Women's Studies Adviser.

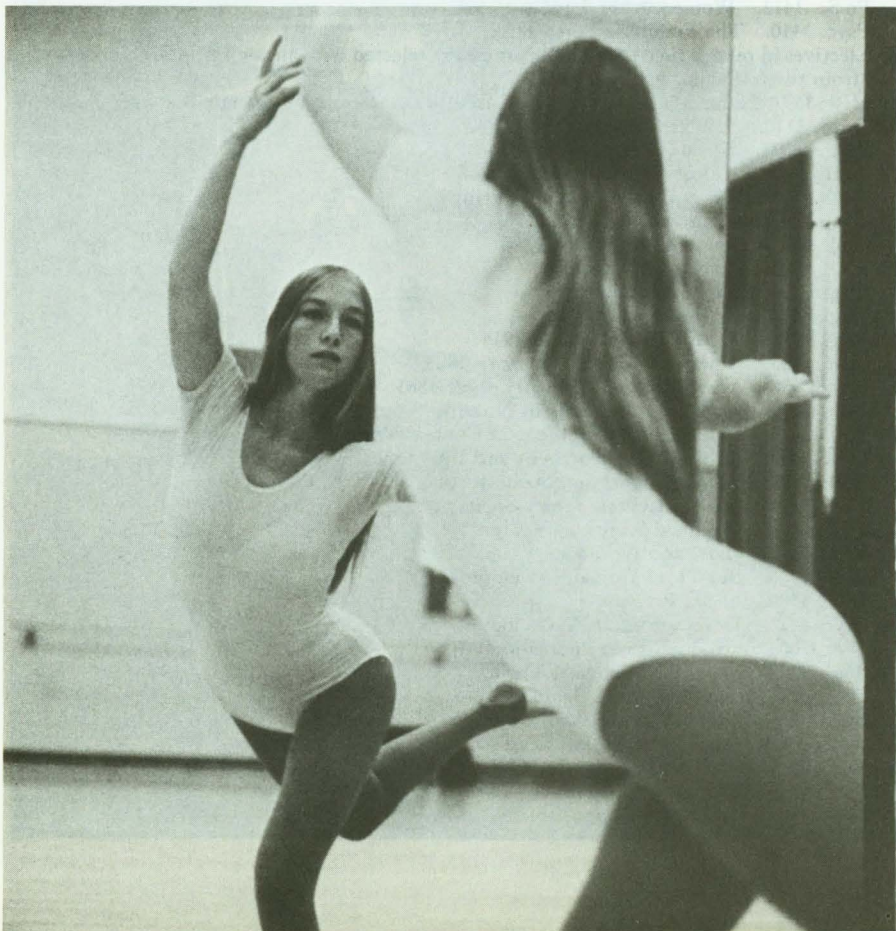
COURSES

3000. Women in the Western World (4)

The role of women, traditional and contemporary, in Western Society. Examination of attitudes concerning sexual roles and expectations. Prerequisite: Junior standing. Four hrs. lect., disc. (Y)

4000. Senior Seminar in Women's Studies (4)

An interdisciplinary consideration of topics relevant to women with application to each student's major field of study. Field research encouraged. Prerequisite: Wo.St. 3000; Junior standing. Four hrs. seminar. (Y)



PART III

FACULTY

EMERITUS FACULTY

- BLACKMON, DORA E. (1970) Professor of Nursing
B.S., 1950, University of Miami; A.M., 1953, Columbia University; Ph.D., 1964, University
of Washington. Emeritus, 1977
- CORY, NORMAN R. (1963) Professor of Music
B.S., 1938, B.M., 1939, Miami University; M.F.A., 1941, University of Oregon. Emeritus,
1978.
- ERNST, KARL D. (1959) Professor of Music
B.M., 1932, M.M., 1936, University of Washington; Ed.D., 1955, University of Oregon.
Emeritus, 1974
- GEISER, PETER (1963) Professor of Sociology
A.B., 1934, University of Pittsburgh; M.S.W., 1948, Ph.D., 1960, University of Southern
California. Emeritus, 1974
- GROODY, TOM C. (1960) Professor of Biological Science
B.S., 1936, M.S., 1937, Kansas State University; Ph.D., 1952, University of California, Berke-
ley. Emeritus, 1976
- GROSS, PHYLLIS (1965) Professor of Biological Science
B.A., 1937, San Jose State College; M.A., 1939, Stanford University. Emeritus, 1978.
- HALL, JEANNE L. (1960) Professor of Speech and Drama
B.S., 1936, Northwestern University; M.A., 1939, University of Southern California; Ph.D.,
1966, University of Michigan. Emeritus, 1978.
- JOYAL, ARNOLD E. (1964) Professor of Educational Administration
A.B., 1925, M.A., 1926, Ph.D., 1931, University of California, Berkeley; L.H.D., 1959, Califor-
nia College of Medicine. Emeritus, 1972
- LAWTON, WILLIAM C. (1963) Professor of Sociology
B.A., 1933, M.A., 1935, University of Texas; Ph.D., 1955, University of Chicago. Emeritus,
1975.
- MAYER, FORREST L. (1960) Dean of Continuing Education;
Professor of Business
A.B., 1937, Colorado State College; M.S., 1938, University of Denver; Ph.D., 1949, University
of Pittsburgh. Emeritus, 1978.
- OLSEN, EDWARD G. (1966) Professor of Education
A.B., 1930, Pacific University; M.A., 1932, Columbia University; B.D., 1933, Union Theologi-
cal Seminary; Ed.D., 1937, Teachers' College, Columbia University. Emeritus, 1973.
- SHIVELY, THORNTON T. (1963) Librarian
B.A., 1934, Hastings College; M.L.S., 1958, University of California, Berkeley. Emeritus,
1975
- SMITH, ARTHUR C. (1959) Professor of Biological Science
A.B., 1939, San Jose State College; Ph.D., 1949, Cornell University. Emeritus, 1977
- YEAGER, HERMAN V. (1960) Professor of Teacher Education
A.B., 1950, San Jose State College; M.A., 1951, Ph.D., 1959, Stanford University. Emeritus,
1975.
- ZEITLIN, HARRY (1960) Professor of Teacher Education
B.S.S., 1948, College of the City of New York; M.A., 1949, Teachers College, Columbia
University; Ph.D., 1958, Columbia University. Emeritus, 1976
- ZHIVADINOVICH, MILKA RADOICICH (1964) Professor of Chemistry
M. Chem. Eng., 1934, Belgrade University; Sc.D., (Doctorate es Sciences), 1939, Sorbonne
(University of Paris). Emeritus, 1977

FACULTY

- McCUNE, ELLIS E. (1967) President
B.A., 1948, Ph.D., 1957, University of California at Los Angeles
- ACORD, THOMAS W. (1972) Assistant Professor of Music
B.M., 1967, Texas Technical University; M.M., 1969, University of Texas
- ADAMS, GUY B. (1976) Lecturer in Public Administration
B.A., 1970, Temple University; M.A., 1973, University of New Mexico; D.P.A., 1976, George Washington University
- AGIN, RHODA L. (1973) Assistant Professor of Speech and Drama
B.A., 1968, Brooklyn College; M.A., 1971, Ph.D., 1975, University of Illinois
- ALLEN, DORIS L. (1966) Librarian
B.A., 1957, San Francisco State College; M.L.S., 1963, University of California, Berkeley
- ALLISON, HARRY E. (1964) Chair, Department of Marketing
Professor of Business and Economics
B.S., 1949, M.S., 1950, Pennsylvania State University; Ph.D., 1955, Harvard University
- ALMQUIST, ALAN J. (1971) Associate Professor of Anthropology
B.A., 1967, M.A., 1969, Ph.D., 1972, University of California, Berkeley
- ALPER, THEODORE G. (1970) Associate Professor of Educational Psychology
B.A., 1964, Michigan State University; M.S., 1966, California State College, Los Angeles; Ph.D., 1969, University of Oregon
- AMEMIYA, FRANCES CAMPBELL (1964) Professor of Mathematics
A.B., 1935, A.M., 1936, University of California at Los Angeles; Ph.D., 1945, University of Michigan
- AMES, RICHARD G. (1969) Associate Professor of Sociology
B.A., 1958, George Washington University; M.A., 1962, American University; Ph.D., 1970, University of North Carolina
- ANDERSON, ANNE G. (1975) Assistant Professor of Management Sciences
B.A., 1960, Wellesley College; M.A., 1965, Ph.D., 1974, Columbia University
- ANDERSON, THOMAS G. (1972) Associate Professor of Educational Psychology
B.S., 1962, M.Ed., 1963, Pennsylvania State University; Ph.D., 1971, University of Pittsburgh
- ANDRADE, ANTONIO (1977) Lecturer in Teacher Education
B.A., 1959, M.A., 1967, San Jose State College; Ph.D., 1975, Indiana University
- ANDREWS, MALACHI (1968) Associate Professor of Kinesiology and Physical Education
B.A., 1956, M.A., 1962, University of Arizona
- ASHLEY, JOHN W. (1965) Professor of Economics
B.A., 1943, M.B.A., 1947, Stanford University; Ph.D., 1958, University of California at Los Angeles
- AUVENSHINE, MARTHA ANN (1974) Assistant Professor of Nursing
B.S.N., 1963, Texas Woman's University; M.C.H., 1971, Emory University
- AVIEL, S. DAVID (1974) Assistant Professor of Management Sciences
B.A., 1965, Hebrew University; M.B.A., 1967, M.S., 1968, University of California, Berkeley
- BAALMAN, ROBERT J. (1965) Professor of Biological Science
B.S., 1960, M.S., 1961, Fort Hays Kansas State College; Ph.D., 1965, University of Oklahoma
- BABLADELIS, GEORGIA (1966) Professor of Psychology
B.A., 1953, University of Michigan; M.A., 1957, University of California, Berkeley; Ph.D., 1960, University of Colorado
- BAILEY, CLAYTON G. (1968) Associate Professor of Art
B.S., 1960, M.S. 1961, University of Wisconsin
- BAIRD, CHARLES W. (1972) Professor of Economics
B.S., 1964, Clark University; Ph.D., 1968, University of California, Berkeley
- BAIRD, JOHN E. (1967) Professor of Speech and Drama
B.A., 1947, M.A., 1948, College of the Pacific; Ph.D., 1959, Columbia University
- BAKER, JAMES C. (1969) Lecturer in Accounting
B.S., 1969, M.B.A. 1973, California State University, Hayward
- BARLOW, EDWIN L. (1973) Assistant Professor of Music
A.B., 1968, Pfeiffer College; M.M., 1969, D.M.A., 1977, University of Southern California
- BARRETT, G. HAROLD (1963) Professor of Speech and Drama
A.B., 1949, M.A., 1952, University of the Pacific; Ph.D., 1962, University of Oregon
- BARRY, JEAN C. (1965) Associate Professor of Mathematics
B.S., 1953, University of Illinois; M.S., 1959, University of Pittsburgh
- BARTELT, CLAUDIA A. (1970) Counselor
B.A., 1958, Hofstra University; M.A., 1963, University of Oregon; Ph.D., 1969, University of California, Berkeley
- BARTLEY, WILLIAM W. (1970) Professor of Philosophy
A.B., 1956, A.M., 1958, Harvard University; Ph.D., 1962, London School of Economics
- BASART, ROBERT D. (1968) Professor of Music
B.A., 1948, Stanford University; B.M., 1953, St. Louis Institute of Music; M.A., 1957, Ph.D., 1971, University of California, Berkeley
- BASSEN, PAUL C. (1968) Assistant Professor of Philosophy
B.A., 1958, Cornell University; Ph.D., 1971, University of California, Berkeley
- BASU, ASOKE K. (1968) Professor of Sociology
B.A., 1961, West Virginia University; M.A., 1963, Ph.D., 1966, Oklahoma University
- BEAN, LOWELL J. (1966) Professor of Anthropology
B.A., M.A., 1961, Ph.D., 1970, University of California at Los Angeles
- BEARD, BARBARA A. (1968) Counselor
A.B., 1955, M.A., 1960, Ohio University
- BECKER, CAROL S. (1973) Assistant Professor of Human Development
B.A., 1964, Mercy College; M.A., 1968, Ph.D., 1973, Duquesne University
- BELGUM, EVELYN H. (1965) Professor of Teacher Education
A.B., 1948, University of California, Berkeley; M.A., 1959, San Francisco State College; Ed.D., 1967, University of California, Berkeley
- BELLONE, CARL J. (1974) Assistant Professor of Public Administration
B.A., 1968, M.P.A., 1971, Ph.D., 1974, University of Southern California
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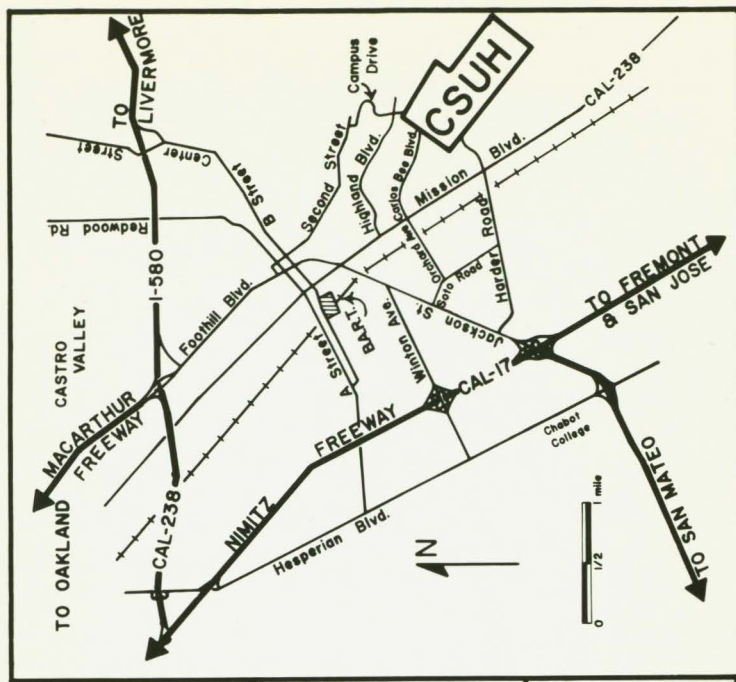
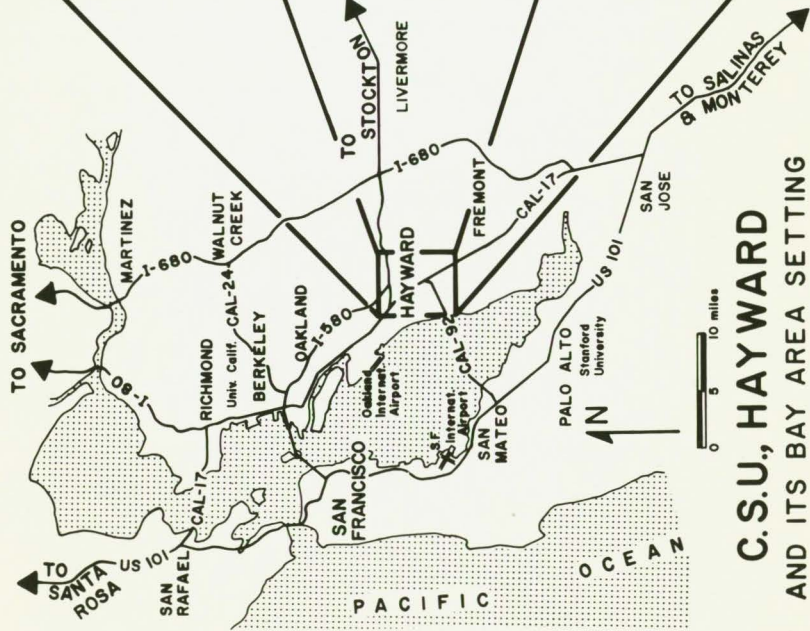
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