

STANISLAUS 75-76

THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

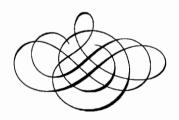
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California State College, Stanislaus THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

1975-1976



800 Monte Vista Avenue Turlock, California 95380 (209)633-2151

California State College. Stanislaus

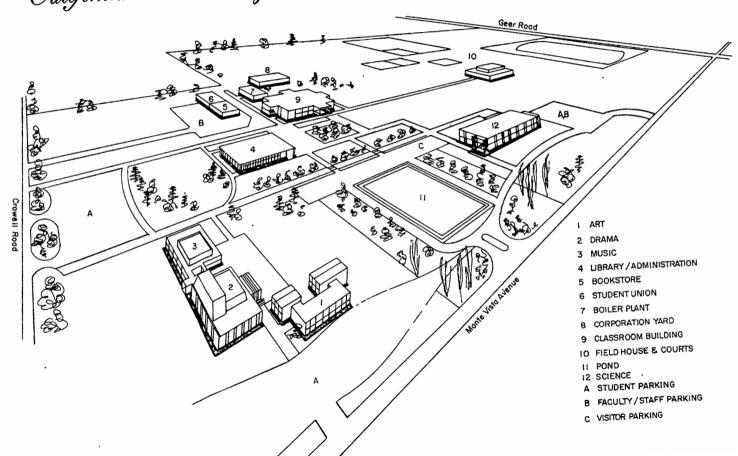


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THE 4-1-4 AT CAL STATE, STANISLAUS

In the Fall of 1975, California State College, Stanislaus will begin the third year of its new "4-1-4" academic calendar. Response to the program in its first years has been enthusiastic, especially to the wide variety of innovative courses offered. Plans for the coming year promise an even more attractive program for 1975-76.

Under 4-1-4, the academic year consists of two 13-week semesters and a month-long Winter Term beginning in January. Fall Semester ends before Christmas break and Spring Semester finishes in early Jume. A typical student load is four courses in the Fall, one during Winter Term, and four in the Spring-hence "four-one-four."

Although in the course of an academic year, the 4-1-4 calendar is exactly equivalent to traditional semester or quarter programs in terms of instructional weeks (30), credit units earned, teaching loads, and registration fees, the unique structure of the 4-1-4 year provides greater opportunities for an innovative and challenging curriculum.

The most exciting dimension of 4-1-4 is the month-long Winter Term in which both students and faculty concentrate on one course or project. Winter Term is tangible evidence of the College's commitment to intellectual inquiry and creative pedagogy. To further stimulate academic innovation and to encourage students to explore unfamiliar disciplines, Winter Term courses and projects are graded on a Credit/No Credit basis. Winter Term courses are required for graduation as an integral part of the 4-1-4 calendar.

During the Winter Term both teacher and learner have an unusual chance for intensive, uninterrupted pursuit of a single subject. This concentration of time, resources, and energy in itself constitutes a new intellectual experience for most undergraduates. Furthermore, Winter Term policy at Cal State Stanislaus facilitates interdisciplinary teaching and learning, invites off-campus field work and research, allows students to propose courses or projects, and permits foreign study via off-campus courses. (See Winter Term Bulletin.)

Cal State Stanislaus is the first public, four-year institution of higher learning in California to adopt a 4-1-4 calendar. Implementation of the new program required a massive expenditure of time and energy by virtually everyone on the College staff. The faculty especially merits commendation for successfully revising the entire curriculum. Finally, the early support of President Carl Gatlin and Chancellor Glenn S. Dumke made the 4-1-4 yenture possible at Cal State Stanislaus.

SUMMER SESSIONS 1975

First Session--June 16 - July 25

April 1-June 16, Tuesday										
through Monday Regular registration period										
June 16, Monday Instruction begins										
June 17-23, Tuesday										
through Monday Late registration period (\$5 late fee)										
June 23, Monday Last day for late registration										
June 23, Monday Last day to add a course										
June 23, Monday Last day to drop a course										
June 27, Friday Last day to file for partial refund of fees										
July 4, Friday Legal Holiday (Independence Day)										
July 25, Friday First session ends										
Cocond Consist July 28 Avenue 15										
Second Session - July 28 - August 15										
Second SessionJuly 28 - August 15										
,										
April 1-July 28, Tuesday										
April 1-July 28, Tuesday through Monday Regular registration period										
April 1-July 28, Tuesday through Monday Regular registration period July 28, Monday Instruction begins										
April 1-July 28, Tuesday through Monday Regular registration period July 28, Monday Instruction begins July 29-30, Tuesday										
April 1-July 28, Tuesday through Monday Regular registration period July 28, Monday Instruction begins July 29-30, Tuesday through Wednesday Late registration period (\$5 late fee)										
April 1-July 28, Tuesday through Monday Regular registration period July 28, Monday Instruction begins July 29-30, Tuesday through Wednesday Late registration period (\$5 late fee) July 30, Wednesday Last day for late registration										
April 1-July 28, Tuesday through Monday Regular registration period July 28, Monday Instruction begins July 29-30, Tuesday through Wednesday Late registration period (\$5 late fee) July 30, Wednesday Last day for late registration July 30, Wednesday Last day to drop a course										
April 1-July 28, Tuesday through Monday Regular registration period July 28, Monday Instruction begins July 29-30, Tuesday through Wednesday Late registration period (\$5 late fee) July 30, Wednesday Last day for late registration										

FALL SEMESTER 1975

November 1-30, 1974, Friday	Initial period for accepting admission
through Saturday	applications for Fall Semester 1975
December 2, 1974, Monday .	
April 1, Tuesday	Semester 1975 admission applications Last day to file applications for
April 1, raesaay	financial aid in Fall Semester 1975
April 28, Monday	Beginning of regular advisement and
	registration period for Fall Semester 1975
May 30, Friday	End of regular advisement and regis- tration period for Fall Semester 1975
June 2, Monday	Beginning of extended registration
,	period for Fall Semester 1975 .
August 29, Friday	End of extended registration period for Fall Semester 1975
	TOT PATT SCHIESCET 1973

September 10, Wednesday .	Beginning of late advisement and registration period for Fall
	Semester 1975 (Instructor's signature required)
September 10, Wednesday .	First day to add or drop a course
September 12, Friday	Student Orientation Program
September 15, Monday	Late registration fee begins (\$5)
September 15, Monday	Instruction begins
September 22, Monday	Last day to complete admission application procedures
September 26, Friday	Last day to apply for Fall 1975 graduation
September 29, Monday	Last day of late advisement and registration for Fall Semester 1975
September 29, Monday	Last day to add a course
September 29, Monday	Last day to file for partial refund of fees after withdrawing from the College
October 10, Friday	Last day to drop a course
October 10, Friday	Applications due for Spring 1976 and Summer 1976 graduation
October 13, Monday	Legal Holiday (Columbus Day)
November 1-30, Saturday	
through Sunday	Initial period for accepting admission applications for Fall Semester 1976
November 13, Thursday	Beginning of regular advisement and registration period for Winter Term 1976 and Spring Semester 1976
November 25, Tuesday	Last day to submit approved master's degree thesis for Fall Semester 1975 graduation
November 26, Wednesday	Last day to withdraw from College for Fall Semester 1975
November 27-30, Thursday	
through Sunday	Thanksgiving Holiday (College closed)
December 1, Monday	Extended filing period begins for Fall Semester 1976 admission applications
December 12, Friday	Last day of classes for Fall Semester 1975
December 15, Monday	Reading Day
December 16-19, Tuesday	
through Friday	Final exams, projects & evaluations
December 19, Friday	End of regular advisement and regis- tration period for Winter Term 1976 and Spring Semester 1976
December 19, Friday	Fall Semester 1975 ends
December 25-28, Thursday	•
through Sunday	Christmas Holiday (College closed)

June 1-30, 1975, Sunday	
through Monday	Initial period for accepting admission
July 1, 1975, Tuesday	applications for Winter Term 1976 Extended filing period begins for Winter Term 1976 admissions applications
December 31, 1975,	ter rerm 1970 admissions apprications
Wednesday	Last day to complete admission
•	application procedures
January 1, Thursday	Legal Holiday (New Year's Day)
January 5, Monday	Beginning of late advisement and regis- tration period for Winter Term 1976 (Instructor's signature required) Late registration fee begins (\$5)
January 5, Monday	Instruction begins
January 7, Wednesday	Last day of late advisement and
Tonue mr. 7 We do so does	registration for Winter Term 1976
January 7, Wednesday January 7, Wednesday	Last day to add a course Last day to drop a course
January 9, Friday	Last day to drop a course Last day to apply for Winter Term
outuary of firedy	1976 graduation
January 9, Friday	Applications due for Fall Semester
	1976 graduation .
January 13, Tuesday	Last day to submit approved master's degree thesis for Winter Term 1976 graduation
January 16, Friday	Last day to file for partial refund of
February 3, Tuesday	fees after withdrawing from College Last day of classes for Winter Term 1976
February 3, Tuesday	Winter Term 1976 ends
SPRING	SEMESTER 1976
	•
August 1-31, 1975, Friday	Initial namind of accepting admission
through Sunday	Initial period of accepting admission applications for Spring Semester 1976
September 1, 1975, Monday .	Extended filing period begins for
	Spring Semester 1976 admission applications
November 13, Thursday	Beginning of regular advisement and registration period for Spring
	Semester 1976
November 14, 1975, Friday.	Last day to file applications for financial aid in Spring Semester 1976
December 19, Friday	End of regular advisement and registration period for Spring Semester 1976
December 22, Monday	Beginning of extended registration
	period for Spring Semester 1976

February 3, Tuesday	End of extended registration period for Spring Semester 1976
February 16, Monday	Legal Holiday (Washington's Birthday)
February 17, Tuesday	Beginning of late advisement and
rebluary 17, lucsuay	registration period for Spring
	Semester 1976
	(Instructor's signature required)
F-1 17	Late Registration fee begins (\$5)
February 17, Tuesday	Instruction begins
February 17, Tuesday	First day to add or drop a course
February 24, Tuesday	Last day to complete admission appli-
7.1 - 05 W 1 1	cation procedures
February 25, Wednesday	Last day to apply for Spring Semester
	1976 and Summer 1976 graduation
March 2, Tuesday	Last day of late advisement and regis-
	tration for Spring Semester 1976
March 2, Tuesday	Last day to file for partial refund of
	fees after withdrawing from the
	College
March 2, Tuesday	Last day to add a course
March 15, Monday	Last day to drop a course
March 15, Monday	Applications due for Winter Term 1977 graduation
April 12-16, Monday	
through Friday	Spring Vacation
April 26, Monday	Beginning of regular advisement and
• •	registration period for Fall
	Semester 1976
April 29, Thursday	Last day to submit approved master's
	degree thesis for Spring Semester
	1976 graduation
May 7, Friday	Last day to withdraw from College
	for Spring Semester 1976
May 21, Friday	Last day of classes for Spring
	Semester 1976
May 24, Monday	Reading Day
May 25-28, Tuesday	
through Friday	Final exams, projects & evaluations
May 28, Friday	End of regular advisement and regis-
•	tration period for Fall Semester 1976
May 29, Saturday	Commencement
May 29, Saturday	Spring Semester 1976 ends
May 31, Monday	Legal Holiday (Memorial Day)
June 1, Tuesday	Beginning of extended registration
	period for Fall Semester 1976

SUMMER SESSIONS 1976 (TENTATIVE)

First Session--June 14-July 23

April 1-June 14 Regular registration period
June 14, Monday Instruction begins
June 15-21 Late registration period (\$5 late fee)
July 5, Monday Legal Holiday (Independence Day,

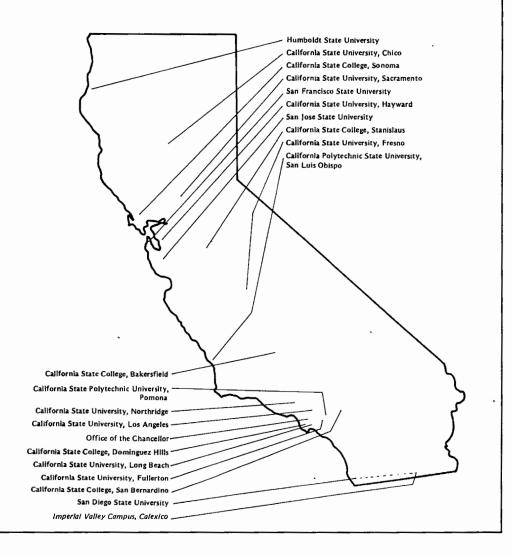
July 4)
July 23, Friday First session ends

Second Session--July 26-August 13

April 1-July 26 Regular registration period July 26, Monday Instruction begins July 27-28 Late registration period (\$5 late fee)

August 13, Friday Second session ends

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 and 14 of the 19 campuses received the title University.

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 1974 totaled approximately 292,000 students, who were taught by a faculty of 16,000. Last year the system awarded over 57 percent of the bachelor's degrees and 36 percent of the master's degrees granted in California. Over 465,000 persons have been graduated from the nineteen campuses since 1960.

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THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

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CALIFORNIA STATE COLLEGE, STANISLAUS

ADVISORY BOARD

Each of The California State University and Colleges by action of the Legislature is privileged to name an advisory board composed of citizens representative of the area served by the college. Appointees are approved by The California State University and Colleges Board of Trustees, and through their participation the college is better able to develop its program in relation to the needs of the college service area. The College is grateful to the following persons for their willingness to serve in this important capacity:

W. O. (Ted) Thompson, Chairman		
John L. Mensinger, Vice Chairman .	<i>.</i>	 Modesto
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Business Manager	

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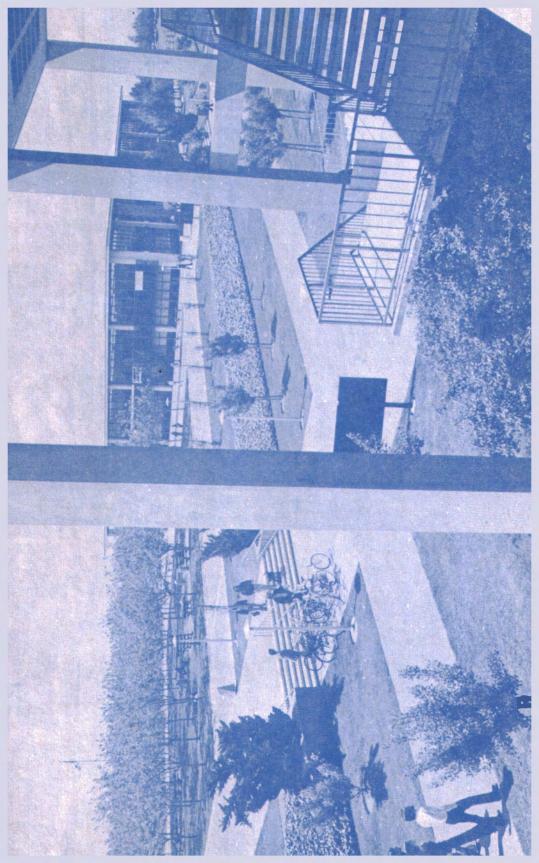
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The Board of Trustees of The California State University and Colleges, in Section 43800 of Title 5 of the California Administrative Code, has reserved the right to add, amend, or repeal any of its regulations, rules, resolutions, standing orders, and 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 College, Stanislaus reserves the right to add, amend, or repeal provisions of this catalog and rules of the College, 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 College 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.





The College and Community

California State College, Stanislaus is a liberal arts institution founded in 1957 as the 14th member of the California State University and Colleges. Classes were first offered in 1960 in temporary quarters, and in 1965 the college was moved to its permanent 220-acre campus on the north edge of Turlock in Stanislaus County.

Enrollment at Cal State Stanislaus has grown to more than 2800 students since its opening and the college continues to attract attention in educational circles with one of the most innovative and dynamic academic programs in the state university and colleges.

Cal State Stanislaus draws students from throughout California, other western states, and a few foreign countries. Located in a rural atmosphere and a small town setting it has become increasingly popular to students from metropolitan areas who long for a lifestyle without many of the problems that are part of the daily scene in the big cities.

The college offers bachelor degrees in 25 subject areas and master's degrees in seven: Business Administration, Education, English, History, Speech, Psychology and Public Administration.

Curriculum policy in the future is expected to be a substantial continuation and expansion of the college's broad-based liberal arts package.

The City of Turlock is situated on the southern edge of Stanislaus County about 13 miles south of Modesto, the county seat. It is a growing community of about 18,000 persons. The economy of Turlock, and of most cities in Central California, is based largely upon agricultural products and food processing plants.

Turlock is about two hours by car from San Francisco, from Yosemite National Park, the ski slopes of the Sierra Mountains and the sandy beaches of the Pacific Ocean. There also are several lakes, parks and other recreational areas much closer to the city.

Turlock has six elementary schools, a high school, two hospitals, a daily newspaper, a radio station, two theaters and several other activities of educational, cultural and recreational interest.

General Information

THE ACADEMIC PROGRAM

Being a small liberal arts college, CSCS combines academic excellence with a friendly, close-knit spirit among the students and faculty. The favorable faculty-student ratio permits small discussion groups, laboratory sessions and seminars, and a sense of informality.

Each student is encouraged to develop a broad background in his first two years before majoring in one of the 24 areas in the Schools of Arts and Humanities, Behavioral and Social Sciences, Natural Sciences, or the Divisions of Business Administration and Education. The major areas are:

Anthropology French Physics Geography Political Science Art Biological Sciences History Psychology Business Administration Liberal Studies Social Sciences Chemistry Mathematics Sociology Child Development Music Spanish Drama Physical Education Special Major Economics Physical Sciences Speech English

Courses are also offered in German, health, ethnic studies, geology, astronomy, and philosophy to supplement the existing major programs.

Master of Arts degrees are available in Education, English, History, and Speech, Master of Business Administration degree, Master of Science degree in Psychology, and Master of Public Administration.

ACCREDITATION

California State College, Stanislaus is fully accredited by the Western Association of Schools and Colleges and is a member of the American Association of Colleges for Teacher Education. It is approved by the United States Veterans Administration, the California State Department of Veterans Affairs, and the American Association of University Women. The Department of Chemistry is nationally accredited by the American Chemical Society.

4-I-4 ACADEMIC CALENDAR

From September 1960 through Summer 1965, the College operated on the semester system, each semester being approximately 16 weeks in length.

In September 1965, the College converted to the quarter system, each quarter being about 11 weeks in length.

Beginning with the 1973 Summer Session, the College returned to the semester system.

In September 1973, the College adopted a new 4-1-4 calendar which provides for a 13-week fall semester, a one-month winter term, and a 13-week spring semester. California State College,

Stanislaus guarantees that students who attended the College under the quarter system academic calendar will be protected from unreasonable requirements or hardship in completion of graduation requirements under the 4-1-4 curricular program. Original catalog year unit and subject graduation requirements may be elected by continuing students while semester unit course substitutions will be offered in order to meet graduation requirements. If a student believes conversion to the 4-1-4 academic calendar poses a genuine hardship for him, he may seek special petition consideration through his major adviser and the Admissions and Records Office, as appropriate.

Semester units can be converted to quarter units by multiplying by 1-1/2 (4 semester units x 1-1/2 = 6 quarter units). Quarter units are converted to semester units by multiplying by 2/3 (9 quarter units x 2/3 = 6 semester units).

SUMMER SESSION AND EXTENSION

The College offers summer session programs each year with courses available in most of the major areas of the curriculum. The programs offered enable students to complete course requirements more rapidly than would otherwise be possible. The summer session also allows students the opportunity to acquire depth in academic fields, to complete credential requirements, and to advance their professional competencies. Summer session is the first term of the academic year. A summer session catalog is issued annually.

The College offers a program of extension courses. Extension credit may be considered by the Admissions and Records office toward a degree only if requested by a student.

During the regular academic year, non-matriculated students holding an A.A. degree or equivalent may on a space-available basis enroll in regular upper division courses through extension. Students should obtain registration packets from the Office of Continuing Education.

Summer session and extension students planning to complete the College's degree or credential programs should seek admission to the College.

For information, refer to the Office of the Director of Continuing Education.

THE FACILITIES

Facilities at California State College, Stanislaus are strikingly modern and blend in well with the pastoral charm of the countryside. The 220-acre campus provides ample room for growth as enrollment dictates and assures that buildings can be erected only a short walk apart while maintaining the spacious atmosphere of the surrounding area.

The Library/Administration Building and the Classroom Building were the first buildings constructed on the permanent campus and were opened in 1965. These two facilities are the hub of the

General Information

campus and serve a variety of purposes as well as providing space for most faculty and administrative offices.

The Performing Arts Complex, which opened in the fall of 1970, is a multibuilding project which houses the departments of art, drama and music. The modern and very comfortable 300-seat Mainstage Theatre is the site of most drama productions and a number of recitals and concerts plus being the platform for numerous visiting lecturers. A concert hall that can seat up to 200 persons is a feature of the rusic racilities in the Performing Arts Complex while the art facilities are highlighted by spacious and functional rooms that provide up-to-date equipment for practically all the art media.

The Science Building, completed and put into use in 1972, is one of the most modern science facilities of its kind in the California State University and Colleges. With much traditional and space-age equipment, including an electron microscope, the Science Building offers a multitude of laboratories and classroom paraphernalia for science and mathematics students.

The Fieldhouse, located on the east side of the campus next to the outdoor athletic fields, is the center of physical education activities. Construction is near for an extensive athletic complex including a gymnasium seating 3000 persons.

A new Cafeteria Building, to open in the fall of 1975, is the newest facility on the Stanislaus campus and will become the center of attention for students during their leisure hours. The main dining room can seat nearly 700 for lunch or for special programs. A snack bar, which will be open evenings, will feature entertainment on a regular basis.

A College Union and Bookstore are located in temporary quarters until permanent buildings can be constructed within the next few years. The College Union is furnished with modern furniture and decor and provides á place for students to study, watch TV, eat lunch, and fraternize. It also houses the offices for the Associated Student Body officers and staff.

HBRARY

The College Library provides the recorded knowledge and cultural materials that students and faculty need for study and research. These materials are freely available in an attractive and comfortable building staffed by professionally trained librarian-scholars who organize, analyze, and interpret those materials. The librarians also aid students in acquiring principles of independent library research.

The College Library occupies the second floor of the Library Building. It seats 365 readers and features individual study desks and group study rooms.

The general collection of the College Library has been selected to meet the needs of the curriculum. It contains over 150,000 volumes of books and about 3,000 periodicals. Backfiles of most of these periodicals are available. The Library is a selective depository of U.S. Government publications and is also a complete depository of California State publications.

The Library has a Curriculum Library and Children's Collection. About 5,000 courses of study, curriculum guides, and units of work are available. A model collection of about 2,000 of the best children's books comprises the Children's Collection.

Since the Library has a staff of eight professional librarians, at least one librarian is available at all times to give reference service and reader advisory service.

AUDIO VISUAL CENTER

The College provides centralized audiovisual services which are designed to enrich classroom instruction by means of the latest equipment and materials available. The film library on campus lists 350 film titles which are used extensively by the faculty and students. About 500 filmstrips are also available.

A contract with the Stanislaus County Schools provides access to the regional film library, and extensive bookings of other off-campus materials are available through rentals from major film libraries throughout the United States.

Television and videotape recorders are available through the Audiovisual Center for student and faculty use in course-connected activities. The School of Behavioral and Social Sciences maintains a television dynamics laboratory with remote controlled equipment in a closed circuit system, and the Division of Education provides videotape recorders for evaluation and improvement of student teaching in the credential program.

The Audiovisual Center provides professional assistance to faculty for the design and implementation of innovative instructional development. Utilization of sophisticated technological advances in the delivery of various teaching strategies is available through emphasis on the latest available teaching techniques in higher education.



The College admits qualified high school graduates, transfer students from two-year community colleges and four-year institutions, and graduate students for course work and programs leading to baccalaureate degrees, advanced degrees, school service credentials, and several professions.

ADMISSION REQUIREMENTS

Requirements for admission to the College are in accordance with Title 5, Chapter 1, Subchapter 3, of the <u>California Administrative Code</u>, as amended by the Board of Trustees of The <u>California State University</u> and Colleges. A prospective applicant who is unsure of his status under these requirements is encouraged to consult with a school or college counselor or contact the College Admissions and Records Office.

ADMISSION AS A FIRST-TIME FRESHMAN

An applicant who has completed no college work* after high school graduation will be considered for admission as a first-time freshman under one of the provisions in this section. Submission of the results of the American College Test (ACT) or the College Entrance Examination Board Scholastic Aptitude Test (SAT) is required to establish eligibility.

Overall excellence of performance in high school subjects and evidence of academic potential provide the basis for admission at the College. While no course pattern is required, the applicant to be properly prepared to undertake a full program of studies and particularly to pursue the required program in general education, is strongly encouraged to include the following subjects as minimally adequate background for college work:

- 1. College preparatory English, 3 years (4 years preferred)
- 2. Foreign language, 2 years in one language
- 3. 'College preparatory mathematics, 2 years.

*Exceptions: College credit earned concurrent with high school enrollment; college credit earned in summer session after high school and prior to regular matriculation in college; college credit granted for the CLEP or ADVANCED PLACEMENT programs, or military or USAFI courses; or college credit granted for some non-traditional learning experience, will not affect the applicant's status as a first-time freshman for application quota purposes as well as admission. Further, the accelerated student, who completes his high school program midyear, who has applied to The California State University and Colleges for the following fall term, but chooses to attend a local community college in the spring term, will be considered a first-time freshman for application quota purposes as well as admission. All such college or advanced standing credit, if fully acceptable as transfer credit, will be granted the student after admission.

Admission to the College

- College preparatory laboratory science, 1 year in 11th or 12th grade
- College preparatory history and/or social sciences, 2 years
- Study in speech, music, art, and other subjects contributing to general academic background.

Below is a more specific listing of high school subjects specially recommended for students who intend to pursue majors offered by the College.

ANTHROPOLOGY: Social sciences, 4 years preferred.

ART: Drawing, painting, printmaking, and sculpture, as much high school and independent work in these fields as possible.

BIOLOGICAL SCIENCES: Mathematics, through trigonometry; foreign languages, 2 years (French or German preferred); biology, preferably 2 years; chemistry, 1 year; physics, 1 year.

BUSINESS ADMINISTRATION: Mathematics, 4 years; English, 4 years.

CHEMISTRY: Mathematics, 4 years (through trigonometry); chemistry, 1 year; physics, 1 year.

CHILD DEVELOPMENT: Biology; English, 4 years; mathematics, 4 years preferred (through trigonometry); social sciences, 4 years preferred.

DRAMA: English, 4 years; as much high school and independent drama experience as possible.

ECONOMICS: Social sciences, 4 years preferred; mathematics, 4 years preferred.

ENGLISH: English, 4 years; foreign language, 4 years.

FRENCH: Foreign language, 2 to 4 years French preferred.

GEOGRAPHY: History and/or social sciences, 4 years preferred.

HISTORY: History and/or social sciences, 4 years preferred; foreign language, 4 years preferred.

LIBERAL STUDIES: A broad selection of elective courses.

MATHEMATICS: Physics, 1 year; mathematics, 4 years (through trigonometry).

MUSIC: As much private music study as possible, as much participation in both vocal and instrumental music as possible, at least 1 year of music theory if offered, and 2 years French or German for voice majors.

- PHYSICAL EDUCATION: Biology; English, 4 years; social sciences, 4 years; as much participation in high school athletic and/or intramural programs as possible.
- PHYSICAL SCIENCES: Physics, 1 year; chemistry, 1 year; mathematics, 4 years (through trigonometry).
- PHYSICS: Physics, 1 year; chemistry, 1 year; mathematics, 4 years (through trigonometry).
- POLITICAL SCIENCE: History and/or social sciences, 4 years preferred; English, 4 years.
- PSYCHOLOGY: Biology; mathematics, 4 years (through trigonometry); English, 4 years.
- SOCIAL SCIENCES: Social sciences, 4 years preferred.
- SOCIOLOGY: History and/or social sciences, 4 years preferred.
- SPANISH: Foreign language, 2 to 4 years Spanish preferred.
- SPEECH: Courses in speech and activity in forensics; English, .4 years; social sciences, 4 years preferred.

California High School Graduates and Legal Residents

An applicant who is a graduate of a California high school or a legal resident of California for tuition purposes must have a grade point average and composite ACT or total SAT score which provides an eligibility index placing him among the upper onethird of California high school graduates. The minimum eligibility index is 741 for the ACT or 3072 for the SAT. It is computed by multiplying grade point average by 200 and adding it to ten times the composite ACT score or by multiplying grade point average by 800 and adding it to the total SAT score. The grade point average is based upon all high school work taken, excluding work completed in the freshman year as well as any courses in physical education or military science. For admission eligibility purposes, the College accepts the best ACT or SAT score for tests taken prior to high school graduation. The table on the next page provides the test scores needed with a given grade point average to be eligible for admission.

California residents who are military service personnel or veterans may be considered under special admission requirements.

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GPA ACT Score SAT Score	GPA ACT Score SAT Score	GPA SCOIPE
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3.12 12 576 3.11 12 584 3.10 13 592 3.09 13 600 3.08 13 608 3.07 13 616 3.06 13 624 3.05 14 632 3.04 14 640 3.03 14 648 3.02 14 656 3.01 14 664 3.00 15 672 2.99 15 680 2.98 15 688 2.97 15 696	2.86 17 784 2.85 18 792 2.84 18 800 2.83 18 808 2.82 18 816 2.81 18 824 2.80 19 832 2.79 19 840 2.78 19 848 2.77 19 856 2.76 19 864 2.75 20 872 2.74 20 880 2.73 20 888 2.72 20 896 2.71 20 904	2.60 23 992 2.34 28 1200 2.08 33 1408 2.59 23 1000 2.33 28 1208 2.07 33 1416 2.58 23 1008 2.32 28 1216 2.06 33 1424 2.57 23 1016 2.31 28 1224 2.05 34 1432 2.56 23 1024 2.30 29 1232 2.04 34 1440 2.55 24 1032 2.29 29 1240 2.03 34 1448 2.54 1040 2.28 29 1248 2.02 34 1456 2.53 24 1048 2.27 29 1256 2.01 34 1464 2.52 24 1056 2.26 29 1264 2.00 35 1472 2.51 24 1064 2.25 30 1272 2.00 35 1472 2.50 25 1072 2.24 30 1280 2.49 25 1080 2.23 30 1280 2.48 25 1088 2.22 30 1296 2.47 25 1096 2.21 30 1304 2.46 25 1104 2.20 31 1312 2.45 26 1112 2.19 31 1320

NON-RESIDENTS GRADUATING FROM HIGH SCHOOLS IN OTHER STATES OR POSSESSIONS. An applicant who is a non-resident for tuition purposes and who is a graduate of a high school in another state or a U.S. possession must have an eligibility index which would place him among the upper one-sixth of California high school graduates. The minimum required eligibility index is 826 for the ACT or 3402 for the SAT and is calculated as in the previous section.

GRADUATES OF HIGH SCHOOLS IN A FOREIGN COUNTRY. An applicant who is a graduate of a foreign high school must have preparation equivalent to that required of eligible California high school graduates. The College will carefully review the previous record of all such applicants and only those with promise of academic success equivalent to that of eligible California high school graduates will be admitted. Such applicants are not required to take the ACT or SAT except when specifically requested to do so; special requirements may apply.

NON-HIGH SCHOOL 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 his preparation in all other ways is such that the College believes his promise for academic success is equivalent to that of eligible California high school graduates.

HIGH SCHOOL STUDENTS ENTERING ADVANCED PLACEMENT PROGRAM. A student still enrolled in high school will be considered for enrollment in the College's Advanced Placement Program if he is recommended by his principal and his preparation is equivalent to that required of eligible California high school graduates. Such admission is only for specific course work and does not constitute the right to continued enrollment. Submission of a special application form each term is a prerequisite for continued enrollment. Such applicants are not required to take the ACT or SAT. Regular application procedures are not applicable.

The College Advanced Placement Program is intended to supplement the curriculum available to qualified high school students by opening college courses to them, to provide these students with the opportunity for a gradual transition to college, and to extend qualified students to the utmost limits of their intellectual capacities at as young an age as is practicable. A high school student admitted to this program may enroll in any lower division course providing he has satisfied all course prerequisites. Regular college credit will be awarded providing credit is not required for high school graduation. Inquiries should be addressed to the Director of Admissions.

ADMISSION AS AN UNDERGRADUATE TRANSFER

An applicant for admission to the College as an undergraduate transfer who is in good standing at the last college he attended will be considered for admission under one of the following provisions. California residents who are military service personnel

or veterans may be considered under special admission requirements. Transferable courses are defined as those officially certified as baccalaureate-level by the regionally accredited college at which the courses were taken. The California Community College transfer should consult his college counselor for information on transferability of courses.

APPLICANTS WITH FEWER THAN 56 TRANSFERABLE SEMESTER UNITS. An applicant who has completed fewer than 56 transferable semester units is eligible for admission if he meets the current first-time freshman requirements and has earned a grade point average of at least 2.0 (C) for all transferable college units attempted. Either ACT or SAT results are required of a transfer applicant with fewer than 56 transferable semester units.

APPLICANTS WITH 56 OR MORE TRANSFERABLE SEMESTER UNITS. An applicant who has completed 56 or more transferable semester units is eligible for admission if he has earned a grade point average of at least 2.0 (C) for all transferable college units attempted. A nonresident applicant must have a grade point average of at least 2.4 (C+).

ADMISSION AS AN INTERNATIONAL STUDENT. The admission of an international (foreign) student with college credit is governed by separate requirements. Prospective applicants from abroad should consult the College Admissions and Records Office for additional instructions.

OTHER UNDERGRADUATE APPLICANTS. An applicant not admissible under one of the above provisions should enroll in a two-year college or other appropriate institution, or consult the College Admissions Office for advice regarding his situation. Only under the most unusual circumstances will such applicants be permitted to enroll in the College. Permission is granted only by special action.

ADMISSION AS A POST-BACCALAUREATE GRADUATE: STUDENT

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 (C+) in the last 60 semester units attempted; and, (c) have been in good standing at the last college attended. Admission to the 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 the 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 who is eligible for admission to the College under Unclassified post-baccalaureate standard 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 the 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 s/he 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.

STUDENTS FORMERLY ENROLLED

Students formerly enrolled at the College who after an absence of one or more semesters desire to return may be readmitted by formally applying for readmission. Formerly enrolled students are subject to the regular application procedure and filing dates.

CSUC VISITORS PROGRAM

Any student entitled to continued enrollment at one of the other 18 campuses of the California State University and Colleges system may enroll for any term at the College as a visiting student by following a simplified application procedure. Concurrent enrollment at two CSUC campuses may similarly be approved. Students at the College also may apply for visitor status at another CSUC campus. CSUC Visitor Status and Concurrent Enrollment application forms are available on request from the College Admissions and Records Office.

CALIFORNIA RESIDENCY CLASSIFICATION

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 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 are found in Education Code Sections 22800-22865, 23763.1, 23754-23754.4, 23758.2 and 23752, and in Title 5 of the California Administrative Code, Article 4 (commencing with Section 41901) 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 his 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 may be established by 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 stay in California.

In general, the unmarried minor (a person under 18 years of age) derives legal residence from his father (or from his mother if the father is deceased), or, in the case of permanent separation of the parents, from the parent with whom the minor maintains his 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. The designated residence determination dates are September 20 for the fall semester, January 5 for winter term, and January 25 for the spring semester.

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 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.
- 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 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.
- 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. 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 College.
- Certain credentialed, full-time employees of school districts.
- 8. 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.
- .9. Certain exchange students.
- 10. 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.

11. 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 residence classification, may make written appeal to:

Office of General Counsel 5670 Wilshire Boulevard Suite 1260 Los Angeles, California 90036

within 120 calendar days of notification of the final decision on campus of his 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 <u>California Administrative Code</u>. 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.

HONORS AT ENTRANCE

Honors at Entrance is awarded an admitted student whose past record indicates his promise of superior academic achievement at the College.

ADMISSION APPLICATION PROCEDURES

UNDERGRADUATE APPLICATION PROCEDURES

All prospective undergraduates must file a complete application for admission including all the forms described in the application booklet and a \$20 non-refundable application fee. Each undergraduate applicant may file only one application for any one term with The California State University and Colleges System. Applications may be obtained from any campus of the system or high school and

community college counselors, and should be filed with the campus of first choice. Alternate choice campuses and majors may be indicated on the application. Applicants seeking financial aid should also complete and submit with the application a Preliminary Financial Aid Application.

POST-BACCALAUREATE APPLICATION PROCEDURES

All applicants for any type of post-baccalaureate status (e.g., Master's degree aspirants, those seeking credentials, and those interested in taking courses for professional growth, etc.,) must file a complete application packet for admission to post-baccalaureate status within the appropriate filing period. A complete application packet for admission to post-baccalaureate status includes all materials required for undergraduate applicants plus supplementary departmental program admission materials, and the \$20 non-refundable application fee. Post-baccalaureate applicants who were enrolled as undergraduate students at the campus in the term immediately preceding the term for which they now wish to apply are also required to complete and submit an application packet and remit the \$20 non-refundable application fee. Applicants seeking financial aid should also complete and submit with the application material specified above, a Preliminary Financial Aid Application.

Since applicants for post-baccalaureate programs will be limited to the choice of a single campus on each application, redirection to alternative campuses will be minimal. In the event that a post-baccalaureate applicant wishes to be considered by more than one campus, it will be necessary to submit a separate application and fee to each.

Application materials may be obtained from the Admissions Office or the Graduate Studies Office of any campus within the system.

WHO NEED APPLY

An Application for Admission or Readmission form must be filed by any person who plans to enroll at the College for a fall, winter, or spring term and who either was not enrolled for residence credit or audit courses, or who withdrew from the College, during the semester preceding the term for which he intends to enroll. A student enrolled at the College who qualifies for a baccalaureate degree, master's degree, or credential must apply for readmission with graduate standing and declare his new educational objective so that he may be considered for continued enrollment. Enrollment in summer session or extension courses does not exempt a person from the above admission application procedures.

STUDENTS SEEKING PART-TIME ENROLLMENT. Students seeking to enroll in a fall, winter, or spring term for a part-time or evening program of courses also must complete the admission procedure and are subject to the admission requirements stated above.

STUDENTS SEEKING ENROLLMENT AS AUDITORS WITHOUT CREDIT. Students seeking only to audit courses without credit must complete the admission procedure. If admitted to the College, these students must pay the same registration fees as other students. (See Auditors.)

STUDENTS SEEKING SUMMER SESSION OR EXTENSION ENROLLMENT. Students seeking to enroll only for summer session or extension courses are not subject to the admission requirements stated above and are not required to comply with the admission procedure or to matriculate unless they intend to complete the College's degree or credential requirements. For Summer Session and Extension, special enrollment procedures will apply. Summer session students and extension students who will be enrolling in residence credit courses to complete the College's degree or credential requirements may qualify for existing degree or credential requirements and secure assignment to a major adviser by completing the admission procedure and satisfying admission requirements.

APPLICATION FILING PERIODS

Applications for admission are accepted according to the following schedule:

	INITIAL	EXTENDED FILING
TERM	FILING PERIOD	PERIOD BEGINS
Summer Quarter	the previous February	March 1*
Fall Quarter/Semester	the previous November	December 1*
Winter Quarter/Term	the previous June	July 1*
Spring Quarter/Semester	the previous August	September 1*

SEMESTER CAL	LENDAR CAMPUSES	QUARTER CAL	ENDAR CAMPUSES
Chico Fresno	Sacramento San Diego	Bakersfield Dominguez Hills	Los Angelės Cal Poly, Pomona
Fullerton	San Francisco	Hayward	San Bernardino
Long Beach Northridge	San Jose Sonoma Stanislaus**	Humboldt	Cal Poly, S.L.O.

All applications postmarked or received during the initial filing period will receive equal consideration within the campuses' established enrollment categories and quotas. There is no advantage in filing before the initial filing period. With the

^{*} The extended filing periods continue until admission quotas are reached.

^{**} The Stanislaus campus is on a modified semester system known as the 4-1-4 calendar with an early fall semester concluding before the Christmas break, a winter term of one month in January, and a spring semester ending in early June.

exception of the impacted undergraduate program areas most campuses will be accepting applications well into the extended filing period.

CATEGORY QUOTAS AND SYSTEMWIDE IMPACTED PROGRAMS

Application category quotas have been established by some campuses, in some majors, where the number of applicants is expected to exceed campus resources. All applications received in the initial filing period will receive equal consideration for such categories. Certain undergraduate programs (e.g., architecture, natural resources, basic nursing, physical therapy) are impacted throughout the 19 campus system, and applicants to such programs are expected to meet supplementary admission criteria for admission to these programs. Applicants to these major programs will be sent further information by the campuses about the supplementary criteria to be used, and how and when applicants must meet them.

SPACE RESERVATIONS

Applicants who can be accommodated within enrollment quotas will receive confirmation of space reservation. Although the space reservation is not a statement of admission to a campus, it is a commitment on the part of the campus to admit a student once eligibility has been determined. When the student receives notice of the space reservation, he should initiate action to have transcripts of any college and high school work sent to the campus where space has been reserved. The campus will inform him of the number of copies of transcripts required, dates for submittal, and where they should be sent. The student should not request that transcripts be sent until requested to do so by the campus where space has been reserved.

Initial filing period applications of students who cannot be accommodated at their first choice campus will automatically be forwarded to their second choice, and, if they cannot be accommodated there, to their third choice, etc.

Each campus has established procedures to consider qualified applicants who would be faced with an extreme hardship if not admitted. Prospective hardship petitioners should contact the concerned campus regarding specific policies governing hardship admission.

APPLICATION FEE

A fee of twenty dollars (\$20) is charged for processing of applications for admission to the College. This fee is non-refundable, non-transferable, and applies to (1) all persons not regularly enrolled at the College during any of the three terms immediately preceding, (2) former students who subsequently registered in another college for residence, summer, extension, or correspondence courses, and (3) all applicants for first-time

graduate student status. Students seeking summer session or extension registration only are exempt from this requirement.

TRANSCRIPTS REQUIRED

An undergraduate applicant must request two sets of complete official transcripts from (1) the last high school he attended and (2) each college and university at which he registered, to be sent directly to the Admissions and Records Office. Transcripts presented by students cannot be accepted.

All transcripts and supporting admission documents are due in the Admissions and Records Office three weeks after the date requested or the following dates, whichever is later: March 1 for the fall semester, October 1 for the winter term, and December 1 for the spring semester.

No determination of admission eligibility will be made until all required transcripts have been received. Official transcripts must include a complete record of all previous high school and college work attempted whether or not the applicant desires credit. A separate official transcript is required from each college attended even though one transcript may show work completed at another college. All records submitted become the property of the College and cannot be returned to the applicant or duplicated.

APPLICANTS WITH COURSES IN PROGRESS. An applicant who is in attendance at a school or college on the date transcripts are requested must file a transcript which includes verification of the subjects in which he is currently enrolled. After the applicant has completed these subjects, he must notify his school or college to forward a supplementary transcript showing the final grades for that term.

VETERANS. A veteran who desires to have his military records evaluated for possible credit toward a baccalaureate degree must file a copy of his separation papers (DD 214) or form DD 295 with his application.

POST-BACCALAUREATE AND GRADUATE STUDENTS. An applicant who holds a baccalaureate degree from an accredited institution and who is not seeking a degree or credential from the College needs only to verify his baccalaureate degree to the Admissions and Records Office by filing when requested to do so, two official transcripts from the institution at which his degree was earned. A graduate who is seeking admission to a degree or credential program must request that two copies of complete official college transcripts be sent directly to the Admissions and Records Office from each college (other than Stanislaus) and university at which he registered.

FORMER STUDENTS. Former students of the college who are returning after graduation or any absence are required to submit two copies of official and complete transcripts covering attendance at any

other college since the date of last enrollment at the College. A former postbaccalaureate student who is not planning to complete the College's degree or credential requirements need not submit additional transcripts.

SUMMER SESSION AND EXTENSION REGISTRANTS. A student seeking to enroll for summer session or extension is not required to file official transcripts unless he plans to complete the College's requirements for a degree or credential.

ADMISSION EXAMINATION

Students who will be entering the college with fewer than 56 transferable semester units completed at regionally accredited colleges are required to take the American College Test (ACT) or the College Entrance Examination Board of Scholastic Aptitude Test (SAT). All other undergraduate applicants, particularly transfers who have mediocre college grade point averages, are urged to take one of these tests if they do not file the results of another recent college entrance aptitude examination with the Admissions and Records Office. Test results will be used as a basis for counseling and, when required, for determining eligibility for admission. Applicants are expected to request the testing service to forward score reports directly to the college. Applicants for admission should take the ACT or SAT not later than February for fall admission, October for winter admission, and December for spring admission.

Registration forms for either test may be obtained from high school and college counselors, or directly from the office of the testing service. American College Test registration arrangements are made by writing ACT Registration Unit, P.O. Box 168, Iowa City, Iowa 52240. The ACT will be given during 1975-76 on the following dates:

Saturday, June 14, 1975
Saturday, October 18, 1975
Saturday, December 13, 1975
Saturday, April 10, 1976
Saturday, June 12, 1976

The Scholastic Aptitude Test (SAT) may be taken at the College and other testing centers throughout the world on the dates listed below:

Saturday, June 28, 1975
Saturday, October 11, 1975
Saturday, November 1, 1975
Saturday, December 6, 1975
Saturday, January 24, 1976
Saturday, April 3, 1976
Saturday, June 5, 1976

Applications and fees should be sent directly to the College Entrance Examination Board, Box 1025, Berkeley, California 94701, in time to be received not later than four weeks and preferably six weeks prior to the test date selected.

Special institutional administrations of the SAT on additional dates to be announced will be arranged exclusively for applicants

to the College. Interested applicants should contact the College Testing Office regarding special institutional administrations of the SAT.

HEALTH HISTORY STATEMENT AND EXAMINATION

All admitted students must submit a health history statement. Appropriate forms will be provided all admitted students for submission prior to registration.

EVALUATION AND ACCEPTANCE OF CREDIT

The Admissions and Records Office will evaluate previous college work in terms of its relationship to the requirements of the College. Each student seeking a degree will be issued an Evaluation of Transfer Credit which will serve as a basis for determining the remaining requirements for the student's specific objective. The evaluation remains valid as long as the student matriculates at the date specified, pursues the objective declared, and remains in continuous enrollment. The student will not be obligated to meet additional graduation requirements unless such requirements become mandatory as a result of changes in the California Administrative Code.

Because of these regulations, the student should notify the Admissions and Records Office immediately if he changes the degree objective specified in his evaluation. (See Declaration or Change of Degree Objectives.)

While a student may follow the specific catalog year degree requirements on which his Evaluation of Transfer Credit is based, he will be held responsible for complying with all changes in other regulations, policies, and procedures which may appear in subsequent catalogs.

ADVANCED PLACEMENT AND CREDIT BY EXAMINATION

The College participates in the Advanced Placement Program of the College Entrance Examination Board. Advanced placement in sequential courses and six semester units of course credit may be awarded to entering students for scores of 3, 4 and 5 on the CEEB Advanced Placement examination. Advanced placement and unit credit also may be awarded for satisfactory scores on the CSUC English Equivalency Examination (EEE) and College Level Examination Program (CLEP) general and subject examinations.

Course credit earned through the College's on-campus Advanced Placement Program for High School Students or from early entrance programs at other colleges will be recognized by the College the same as is regular credit, provided this credit is not applied toward high school graduation. (See Admission as a First-time Freshman.)

TRANSFER OF CREDIT FROM A COMMUNITY COLLEGE

Transferable courses are defined as those officially certified as baccalaureate-level by the regionally accredited college at which the courses were taken. No upper division credit may be allowed from a two-year college, nor may credit be allowed for professional courses in education.

Credit from two-year colleges is allowed up to a maximum of 70 semester units. Additional lower division courses may be completed at a four-year college for full credit, even after 70 units have been earned. Completion of General Education requirements is not required for admission with upper division status.

It is greatly advantageous and frequently imperative to begin some upper division course work, especially that which is applicable to major requirements, soon after 56 semester units are earned. Postponement of transfer usually results in the expense of postponed graduation because a minimum of two years of study is normally required from whichever date upper division course work is started. Simultaneous enrollment at the College for upper division course work and at a two-year college may be approved for any student by the assigned major adviser.

CREDIT FROM NON-ACCREDITED COLLEGES

Courses from institutions of higher learning which are not accredited to offer work leading to the baccalaureate degree by a regional accrediting agency recognized by the U.S. Office of Education and courses from those which are accredited as a "specialized institution" may be accepted for credit toward advanced standing and fulfillment of graduation requirements only if appropriate in purpose, scope, and depth for a baccalaureate degree. Credit allowed from these institutions will be designated as provisional. Regular credit may be granted upon adviser recommendation, department endorsement, and completion of 24 semester units at the College with a 2.0 (C) grade point average or better.

A student with a degree from such an institution may have his educational experience recognized by the College as equivalent to the completion of a baccalaureate degree from a regionally accredited institution upon adviser recommendation, department endorsement, and completion of 12 units at the College with a grade point average of 3.0 (B) or better or completion of 24 units with at least a 2.5 (C+) grade point average.

COURSE WORK COMPLETED TEN YEARS BEFORE ENROLLMENT

Course work completed ten years before enrollment at the College is designated provisional credit, primarily to alert the student and assigned adviser that course scheduling adjustments may be warranted. Regular credit for this course work will be allowed based on adviser recommendation after satisfactory completion of 24 units at the College.

CREDIT FOR EXTENSION AND CORRESPONDENCE COURSES

The maximum credit for correspondence and extension courses which may be allowed toward the bachelor's degree is 24 semester units.

WORKSHOP CREDIT

Workshop credit does not substitute for course credit in a credential sequence and will not be applied toward the general education, major, or minor requirements of the College. Such credit may be applied toward a bachelor's degree only as elective units.

CREDIT FOR MILITARY SERVICE

Undergraduate students who have been in military service may receive credit toward a baccalaureate degree. Courses taken at military service schools if appropriate in purpose, scope, and depth for a baccalaureate degree may also yield credit. Military experience will be evaluated only upon request. Separation papers (DD 214) or form DD 295 verifying such experience must be filed with the Admissions and Records Office before credit will be allowed.

ACADEMIC ADVISEMENT

The Academic Advising Office directs the academic advising program at the College. Such advising is primarily the responsibility of faculty members in the specific academic areas. Upon admission a student is referred to an adviser in his declared major field of study or to a general adviser if he is undeclared or is without a California State College, Stanislaus degree objective. An undeclared major must declare a degree major or another specific educational objective prior to his junior year. Any selection or change of major or minor after admission must be accompanied by an official declaration form. (See Declaration or Change of Degree Objectives.) If a student is uncertain as to a choice of major and/or its related vocational goal, he may request from his adviser a referral to the Testing Office.

Although the adviser assists the student in planning his entire educational program, the student is considered to be responsible for meeting all course prerequisites and all requirements for his degree or credential. Specific days for academic advising are designated each semester in the Academic Calendar to provide a time for the student to consult with his adviser in determining a program of courses for the approaching term. At this conference the student completes a Registration Request form which is a part of the registration process.

A student is prepared for his first advising conference only after he has reviewed appropriate sections of the College catalog, examined course offerings in the Class Schedule, and prepared a Trial Study List including alternatives (found in the Class Schedule). If an Evaluation of Credit form has not yet been issued, any catalog(s) of former college(s) attended and any transcripts not on file at CSCS must also be brought to the conference.

A student intending to enter any of the professions listed below may obtain information about CSCS pre-professional programs from the following sources.

PREPARATION FOR PRE-PROFESSIONAL STUDIES

The plan of undergraduate study at California State College, Stanislaus emphasizes a liberal education in preparing for professional or vocational specialization. A student preparing for a professional specialization has opportunities to do so by selecting, in consultation with an appropriate pre-professional adviser, the kind of curriculum that most soundly meets the requirements set by the profession he or she wishes to enter.

PRE-PROFESSIONAL PROGRAM: MEDICINE, VETERINARY MEDICINE, OPTOMETRY, DENTISTRY, PHARMACY

The majority of students entering medical and dental schools in the United States do so after having acquired a B.A. or B.S. degree at an undergraduate college. Possession of an undergraduate degree is especially worthwhile, since professional schools do not offer liberal arts subjects.

Any undergraduate major is appropriate for a pre-professional student as long as certain basic subject areas are included in the program. For specific requirements of professional schools, the student is urged to consult such special sources as "Medical School Admission Requirements" (a publication of the Association of American Medical Colleges), and the College's Health Sciences Advisory Committee.

Students interested in the health sciences should register with the Health Sciences Advisory Committee through the Dean of Natural Sciences as soon as admission to the College is granted. A committee member will then prepare a suggested basic program to supplement advisement by the major adviser. The committee will also compile data on each student and prepare a letter of evaluation to be sent at the student's request in support of his application to professional schools. Registration with the committee does not commit the student to any particular program or career. (See catalog section titled Health Sciences.)

PRE-PROFESSIONAL PROGRAM: LAW

Applicants for admission to most law schools are expected to have a B.A. or B.S. degree and to have taken the Law School Admission Test. There is no single "pre-law" major required, or in most instances recommended, since the successful study of law is more often related to the ability to grasp and solve difficult intellectual problems and to employ disciplined work habits, than it is to any narrow, specialized field of study.

Several broad objectives of pre-legal education are set forth by the Association of American Law Schools. These include the oral and written command of language; an understanding and appreciation of social, political, and economic values, institutions, problems, and frames of reference; and an ability for creative, innovative, critical, and analytical thinking.

Since no one major is mandatory, the student should select one which emphasizes the areas mentioned above (economics, English, history, philosophy, political science, and sociology to name a few). For additional information, the student should consult with the pre-law adviser.

For additional information, a student should see the bulletins or catalogs of various law schools or the official "Pre-Law Handbook," current edition, prepared by the Law School Admission Test Council and the Association of American Law Schools. This handbook may be obtained at most college bookstores or ordered from Educational Testing Services, Princeton, N.J. 08540.

REGISTRATION

Registration is the final step in the matriculation process. When a student has been admitted to the College and has determined which subjects he should take, he should make an appointment to see his adviser during the Academic Advising Period to prepare for registration and obtain the necessary registration forms and instructions. A Class Schedule listing courses offered is available before the Academic Advising Period for each term.

Under the present Computer Assisted Registration system students may register in person or by mail. It is to the advantage of the student to register as early as possible in the registration period as noted in the Academic Calendar. Late registrants may find themselves handicapped in arranging their programs and must pay a \$5.00 late registration fee, as required by State law.

If a student unofficially drops a course or leaves the College without first reporting to the Admissions and Records Office to make the change official, he may receive grades of F or NC. If he attends a course without officially adding it, he will receive no credit for the course.

Students who do not attend the regularly scheduled class meetings during the first week of class after registration may be refused entrance to the class by the instructor. Students are responsible for dropping such classes.

In accordance with credential regulations for school personnel (Ryan Act, 1970), the College has developed or is developing programs for approval by the Commission for Teacher Preparation and Licensing (CTPL). Course work leading to prior regulations (Fisher) is available by advisement.* The Ryan Act provides for both service credentials and teaching credentials. The three major teaching credentials are as follows:

- Multiple Subject Teaching Credential: for teaching in a self-contained classroom in grades preschool through twelve and in classes for adults.
- Single Subject Teaching Credential: for teaching a single subject in a departmentalized school; most commonly applicable to California junior and senior high schools.
- Specialist Credential: for teachers with special preparation and competence in the area designated, in addition to the basic teaching credentials.

The Commission for Teacher Preparation and Licensing has approved the programs at California State College, Stanislaus leading to the following credentials:

- 1. Multiple Subject Instruction
- 2. Single Subject Instruction
- 3. Reading Specialist Credential
- 4. Special Education: Communication Handicapped
- 5. Special Education: Learning Handicapped
- 6. Administrative Services

In addition, the credential programs listed below are being revised under terms of the new credentialing and licensing act; these programs have been offered by the College under previous legislation.

Services Credentials:

- 1. Pupil Personnel Credential: School Counseling
- 2. Pupil Personnel Credential: School Psychology

Students interested in revised or proposed programs should check with the offices of the Division of Education and Department of Psychology for current status of programs.

^{*}Students seeking to make initial credential applications under prior regulations need to consult the Credential Coordinator and get total program approval.

HONOR LIST OF STUDENTS

Each semester the College publishes a list of undergraduate honor students. To qualify for the list, a student during the semester under consideration must (1) register for and earn a minimum of 10 units of graded course work at the College, and (2) achieve a 3.5 (B+) grade point average for all course work attempted at the College.

GRADING SYSTEM

ACADEMIC GRADES

- A Excellent . . . Student has demonstrated a high level of competence in meeting course objectives. Four (4) grade points per unit of credit are awarded; affects progress points in same manner.
- B Good . . . Student has demonstrated a more than satisfactory level of competence in meeting course objectives. Three (3) grade points per unit of credit are awarded; affects progress points in same manner.
- C Satisfactory . . . Student has demonstrated a satisfactory level of competence in meeting course objectives. Two (2) grade points per unit of credit are awarded; affects progress points in same manner.
- D Unsatisfactory . . . Student has demonstrated only a barely passing level of competence in meeting course objectives so that it is not necessary to repeat the the course for credit. One (1) grade point per unit of credit is awarded; affects progress points in same manner.
- F Failure . . . Student has not demonstrated a minimally passing competence in meeting course objectives. Credit is not merited. Affects both progress points and grade point calculations; zero progress points and grade points assigned.
- CR Credit . . . Student has demonstrated at least a satisfactory "C" level of competence in meeting course objectives (at least "B" level in graduate courses). Not used in grade point average calculations. Two (2) progress points per unit of credit are awarded (three [3] per unit of credit in graduate courses); grade points are not affected.

NC - No Credit . . . Student has not demonstrated minimally satisfactory competence in meeting course objectives. Credit is not awarded. Not used in grade point average calculations but affects progress points calculations; zero progress points assigned.

ADMINISTRATIVE SYMBOLS

- I Incomplete Course . . . Student has not completed course requirements due to reasons beyond his control. Must be made up within the time limit set by the instructor and, in any case, no more than one year following the end of the term in which the grade was assigned. Failure to complete the assigned work will result in an incomplete reverting to a grade of "NC" for grading options 1, 2, 3, and 6; and to a grade of "F" for grading options 4 and 5. (See Grading Options below.) An extension of time may be granted via approved petition. Not used in grade point average or progress points calculation.
- RD Report Delayed . . . No grade reported by the instructor.

 The "RD" symbol may be used in those cases where a delay in reporting of a grade is due to circumstances beyond the control of the student. Symbol will be replaced by an appropriate academic grade as soon as possible. Not used in grade point average or progress points calculation.
- W Withdrawn from Course . . . A student may withdraw from any course through the 20th day of instruction, as indicated in the Academic Calendar, without having any administrative symbol recorded. A student may withdraw from the College by filing an approved Withdrawal Card in the Admissions and Records Office. A student who withdraws from the College is deemed to be fully responsible for such action and is not eligible for readmission to the College prior to the beginning of the next term. A student who takes unauthorized leave may receive a final grade of "F" or "NC" in each course for which he was registered. Students who officially withdraw by the last day to file for a partial refund of fees will have their refund automatically mailed to the address indicated on the Withdrawal Card. (See Refund Regulations.) Withdrawals after the 20th day of instruction and prior to the last three weeks of instruction are permissible only for serious and compelling reasons. Permission to withdraw during this period required the following statements and approval on the "Request to Drop Course with W Grade" form:
 - a. A statement of the serious or compelling reasons with supporting evidence.

Academic Standards

- b. Report of the course instructor on the student's academic performance to date and recommendations (if any).
- c. Notification of the student's adviser, allowing him the opportunity to provide pertinent information concerning the student's withdrawal (if any).
- d. Approval of the School Dean (Division Chairman). Upon approval, a "W" will be assigned. The "W" carries no connotation of quality of student performance and is not used in grade point average or progress points calculation. Withdrawals shall not be permitted during the final three weeks of instruction except in cases such as accident or serious illness where the cause of withdrawal is due to circumstances clearly beyond the student's control and the assignment of an incomplete is not practicable. Written approval is required by the School Dean (Division Chairman).
- SP Satisfactory Progress . . . Indicates a term of satisfactory progress in a course or activity which may require more than one term to complete (e.g., master's thesis). Not used in grade point average or progress points calculation.
- AU Audit . . . Enrollment in a class for purposes of instruction only. No credit. Not used in grade point average or progress points calculation.

Prior to Fall Semester 1973, the following grades were also used:

- WS Withdrew, Satisfactory . . No effect on units earned or grade point average.
- WU Withdrew, Unsatisfactory . . 0 grade points (equivalent to grade of "F").
- IS Incomplete, Satisfactory . . No effect on grade point average.
- IU Incomplete, Unsatisfactory . . 0 grade points.
- P Passing . . . No effect on grade point average; indicates achievement of a sufficient portion of course objectives to justify the awarding of unit credit.

GRADING OPTIONS

- 1. Courses graded exclusively Credit/No Credit.
- Courses graded A, B, C/No Credit--without the student's option to receive a Credit or No Credit grade.
- Courses graded A, B, C/No Credit--with the student's option to receive a Credit or No Credit grade.
- 4. Courses graded A, B, C, D, F--with the student's option to receive a Credit or No Credit grade.
- 5. Courses graded A, B, C, D, F.
- Courses graded Credit/No Credit--with the student's option to receive a letter grade.

PROGRESS POINTS

Progress points are for the purpose of determining probation and disqualification at the College and are based on the computation as noted under Grading System above. Administrative Symbols are not used in determining progress points.

CREDIT/NO CREDIT GRADING

Affy student may elect to be graded on a "Credit/No Credit" (CR/NC) basis in any course approved for credit grading. Courses approved for CR/NC are indicated as such in the Class Schedule.

The student must notify the course instructor in writing of his election of the credit grading system by the Last Day to Add a Course. Request forms are available from instructors or the Admissions and Records Office during the first week of class.

The "Credit" (CR) grade is earned for "C" work or better ("B" or better, in graduate courses) as judged by the instructor concerned, "Gredit" and "No Credit" (NC) grades will have no effect on grade point average but will affect progress points. Each department determines the maximum number of CR/NC courses applicable to degree requirements, but in no case shall more than one-third of the required upper division or graduate units or courses in a degree program be graded CR/NC. No more than 40 semester units graded on a CR/NC basis may be applied toward a baccalaureate degree. No more than 8 semester units of CR/NC may be applied in a given semester toward a baccalaureate degree.

SCHOLARSHIP STANDARDS *

For the purpose of determining eligibility for a bachelor's degree, a student must earn and maintain a grade point average of at least 2.0 (C) for his entire college record in all courses at California State College, Stanislaus. Failure to maintain standards of minimum competency will result in either Probation or Disqualification.

GOOD STANDING

A student is in good standing when he is eligible to continue enrollment and is free from academic disqualification and disciplinary suspension and expulsion.

For the purpose of determining a student's eligibility to remain at California State College, Stanislaus (Good Standing), both the quality of performance and progress toward his academic objective shall be considered. Such eligibility shall be determined by means of a Progress Point Scale based on the grade and progress point values of grades mentioned under Grading System-Academic Grades.

^{*}The student may also be subject to expulsion, suspension, and/or probation for other causes. See Student Conduct, Rights, and Responsibility in Student Services section of this catalog.

Academic Standards

PROBATION

A student shall be placed on probation if, in any fall or spring semester, he fails to earn twice as many progress points as all units attempted during that term. Each student on probation will be expected to meet with his School Dean (Division Chairman) or the Dean's designee to formulate a plan to rectify his academic deficiencies and maintain progress toward a degree.

DISOUALIFICATION

A student shall be disqualified and lose good standing if, while on probation in a fall or spring semester, he fails to earn twice as many progress points as all units attempted during that term or is admitted or readmitted on probation and fails to meet the conditions established at the time of admission.

Any student may also be disqualified if, during any semester, he earns fewer cumulative grade points than cumulative units attempted, and the cumulative grade point deficiency is so great that in view of the student's overall educational record it seems unlikely that the deficiency will be removed within a reasonable period.

A student disqualified at the end of Fall Semester is eligible to attend Winter Term. In such cases the effective date of disqualification shall be the last day of the Winter Term.

SPECIAL ADMINISTRATIVE ACTION

A student may be placed on administrative-academic probation for any of the following reasons:

- Withdrawal in two successive terms or in any three terms from more than half of the units for which he is registered as of the end of the fourth week of a semester.
- Repeated failure to progress toward the stated degree or other program objective, when such failure appears to be due to circumstances within the control of the student.
- Failure to comply, after due notice, with an academic requirement or regulation which is routine for all students or a defined group of students (e.g., failure to take tests, complete specified course work, etc.).

Notification of such action shall provide the conditions for removal from probation and the circumstances which would lead to disqualification.

Furthermore, a student who has been placed on administrativeacademic probation later may be disqualified if:

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

Notification of such action shall provide an explanation of the basis for the action.

REINSTATEMENT AFTER DISQUALIFICATION

A student who is disqualified will not normally be considered for reinstatement and readmission until after one full semester of nonattendance at California State College, Stanislaus.

After completion of the period of disqualification and after fulfillment of any other requirements stipulated, a student may petition for reinstatement to the Dean of his School (Division Chairman) and apply for readmission at the Admissions and Records Office.

To be reinstated and readmitted, a student must provide before the specified deadline dates listed in the College catalog evidence that future academic performances will be satisfactory.

Reinstated students will be readmitted only if admission quotas permit. Students whose petitions for reinstatement are approved will be readmitted on probation only, regardless of the grade point average earned at any other institution.

REPEATED COURSES

Courses may be repeated by undergraduate students and only the most recent grade earned will be used for unit credit and grade points. This policy is effective only for courses repeated during or since Summer 1973. The original enrollment and the repeated effort need not be at the same college if it can be established after faculty consultation, as appropriate, that the courses are equivalent in terms of content and emphases. This provision for repetition is not applicable when a course may be taken additional times for credit.

A student should file a Notification of Repeated Course form at the Admissions & Records Office after he repeats a course.

At admission to the College, the repeated course actions and policies of former institutions will be honored.

ACADEMIC RENEWAL

Courses with unsatisfactory grades either at California State College, Stanislaus or at other colleges may be excluded from credit and grade point consideration if course repetition is inappropriate (e.g., change of major, or courses not offered at CSCS), subject to the following provisions:

- at least five calendar years have elapsed since the course work was attempted;
- 2. the student is an undergraduate and has completed at CSCS 15 semester units with a 3.0 (B) grade point average, or 30 semester units with a 2.5 (C+), or 45 semester units with a 2.0 (C);
- 3. a maximum of one academic year of course work may be disregarded and when such action is taken all work attempted during those terms must be disregarded; similar actions by other institutions would be counted in determining the one year limit.

Academic Standards

- 4. The student must provide evidence that his past performance was due to extenuating circumstances and that additional enrollment would be necessary to qualify for a degree if his request were not approved.
- 5. The permanent academic record will be annotated so that a record of all work remains legible, ensuring a true and complete academic history.

This policy is retroactive. A student must initiate such action using an appropriate petition form; upon approval of the faculty adviser, School Deam (Division Chairman), and Vice President for Academic Affairs, admission personnel will implement the policy.

At admission to the College, the academic renewal actions and policies of former institutions will be honored.

POLICIES AND PROCEDURES

NOTE: Students are held individually responsible for knowing and complying with these regulations.

GENERAL EDUCATION CREDIT

The Class Schedule, the Winter Term Bulletin, and this Catalog designate the courses offered during 1975-76 at the College which are applicable to General Education requirements. Only courses so designated are approved for credit applicable to General Education. All enrolled undergraduates should therefore refer to the current catalog section entitled General Education, which lists acceptable General Education courses.

CLASS ATTENDANCE

Regularity in attending classes is assumed. Students are allowed no specified number of absences, but legitimate absences for which instructors will make allowances are: illness, accident, death in family, and college activities which the student is obligated to attend. In such cases, the instructor may give the student opportunity to make up the work missed.

Students who do not attend the regularly scheduled class meetings during the first week of class after registration may be refused entrance to the class by the instructor. Students are responsible for dropping such classes.

AUDITORS

Admitted students may register in courses as auditors without credit with permission of the instructor provided that enrollment be permitted only after students otherwise eligible to enroll in the course on a credit basis have had an opportunity to do so. An auditor must pay the same registration fees as other students and may not change his registration to obtain credit after the last day to add a course. A student registered for credit may not change to audit status after the last day to drop a course. An auditor may participate in class activities or take examinations with the instructor's consent. Regular class attendance is expected. An audited course will not be posted on a student's permanent academic record unless he has formally registered for the course and, in the opinion of his instructor, has attended a substantial number of class meetings.

CONCURRENT ENROLLMENT

Any matriculated student pursuing a degree or credential at the College who desires to enroll for a course at another institution or in an extension course at the College must secure prior approval from his major adviser if credit is to be accepted.

Policies and Procedures

Acceptance of credit, however, depends on policies set forth in the catalog section on Evaluation and Acceptance of Credit, and it is the responsibility of the student to find out whether a course taken in concurrent enrollment will be accepted. Application forms are available at the rack across the hall from the Admissions and Records Office.

OFFICIAL PROGRAM LIMITS

A student who wishes to register in excess of 16 units during a fall or spring semester must submit at the time of registration a Request to Exceed Official Program Limits approved by his major adviser and the Dean of his School. Four units is the maximum for which a student may enroll during a winter term.

Units taken for Credit by Examination do not count toward excess units; however, concurrent enrollment courses, audited courses, and courses in which a student is making up an incomplete grade are all counted as part of the student's total course load.

When courses in the 500 series are included, a program normally may not exceed three courses or 12 units. Students with outside responsibilities are advised to reduce their study loads proportionately. Excess units forms are available at the Admissions and Records Office forms rack.

CREDIT BY EXAMINATION

Any student who possesses or through independent study can acquire the ideas and concepts of a course at CSCS can accelerate progress through the College by means of Challenge Examinations. Credit earned in this manner is not treated as part of the student's work load during the regular term and therefore does not require a petition for excess study load.

Credit earned by Challenge Examinations will not be counted toward fulfillment of the College's residence requirement and may not be counted toward the completion of major and minor requirements except with the express approval of the Major and/or Minor adviser and the appropriate Department Chairman. However, both subject and unit credit (unless otherwise specified) will be granted and counted toward the College's 124 semester unit graduation requirement.

All credit allowed through Challenge Examinations will be ungraded and will be documented in the student's academic record file.

There are presently two types of courses at the College for which a student may receive credit by Challenge Examinations. These examinations are prepared, approved, and evaluated by the appropriate academic department, and administered by the College Testing Office.

CSCS Courses Regularly Offered by Examination

Special course sections for credit by examination may be offered in the Class Schedule by a department. Credit may be earned in these courses by:

- Enrolling in the course for Credit by Examination during a regular registration period.
- Taking the Challenge Examination at the time and place specified and passing it at the level deemed satisfactory by the department.

Grades of Credit (CR) and No Credit (NC) will be awarded.

CSCS Catalog Courses

A currently enrolled or formally admitted student who has had special preparation in a given subject and who feels that he has covered the necessary course work may challenge by examination any course currently listed in the CSCS catalog under the following conditions:

- Examination from the Admissions and Records Office, obtain the necessary departmental approvals, pay an examination fee of \$3 per semester unit or fraction thereof to a maximum of \$10 per course challenge, and file all copies of the completed request with the Director of Testing. Instructions for completing and processing the request are contained in the form.
- The student must take the Challenge Examination at the time and place specified and pass it at the level deemed satisfactory by the department.

Grades of Credit (CR) or No Credit (NC) will be awarded.

Subject Requirements

Certain specific subject requirements (e.g., U.S. Constitution, State and Local Government, etc.) may be passed by Challenge Examinations under the following conditions:

- 1. An appropriate course is not offered by the College.
- Special arrangements must be made with the appropriate department for the preparation of the necessary examination.
- 3. The student must secure a Request for Credit by Challenge Examination form, secure the necessary approvals, pay an examination fee of \$6 and file all copies of the completed request with the Director of Testing.
- 4. The student must take the Challenge Examination at the time and place specified, and pass it at a level deemed satisfactory by the department.

Subject credit only is granted for this type of Challenge Examination. An appropriate notation certifying completion of the specific requirement will be placed on the student's permanent academic record.

A specific schedule of dates for these types of Challenge Examinations will be published by the College Testing Office. These dates will usually fall near the end of the eighth week of each semester.

Advanced Placement, CLEP, and English Equivalency Test Programs
Credit by Examination may also be secured through the College
Entrance Examination Board Advanced Placement Program as well

Policies and Procedures

as by passing appropriate sections of the College Level Examination Program (CLEP) General and Subject Examinations. In addition, students seeking General Education credit in English may take the California State University English Equivalency Test in May of each year. Six semester units of credit are awarded for successfully passing this examination. In individual cases, a limit may be imposed on the number of units of credit which can be earned through Challenge Exams. Further information concerning these options may be obtained from the Admissions and Records Office or the Office of Testing Services.

INDIVIDUAL STUDY COURSES

Individual study courses are available in certain fields to a student who has demonstrated capacity for independent study and superior ability in regular course work in those fields at the College. A total of six units of individual study credit, excluding course work taken in winter terms, is the maximum permitted toward a degree, credential, or other educational objective. These courses are numbered 4980, 5980, and 6980 following the subject field prefix. Individual study courses are not offered to cover the content of a course already part of the College's regular program of instruction even though the course may not be offered every term.

A student seeking to enroll for an Individual Study course must at registration file the original copy of an approved Request for Course by Individual Study form. The second copy is to be filed with the department concerned. Request forms are available at the Admissions and Records Office forms rack. The request for individual study must be approved by the student's individual study instructor, major adviser, and the department head concerned who will retain a copy of approved requests. Approvals should be obtained during the advising for registration period indicated in the Academic Calendar.

SEQUENCE COURSES

No student will be able to take a sequence course for credit which is below the level of a course for which credit was received in the past.

POSTBACCALAUREATE CREDIT

All courses taken during the term in which a student earns his degree that are not needed to fulfill degree requirements will, upon the approval of the Request for Postbaccalaureate Credit form, be indicated on his permanent academic record as acceptable postbaccalaureate credit. Students graduating Spring Semester may also request to have the preceding Winter Term courses included as postbaccalaureate credit if not used for degree requirements. Request forms are obtained from and filed with the Admissions and Records Office.

DECLARATION OR CHANGE OF EDUCATIONAL OBJECTIVES

A student who selects or changes his educational objective at the College after admission must file a Declaration or Change of Degree Objective form with the Admissions and Records Office. To officially change and/or declare an educational objective, all appropriate signatures must be obtained on the form. Students admitted to a credential program will have their names submitted to the Admissions and Records Office by the Division of Education.

Juniors and seniors must officially declare a degree major at the College or other specific educational objective.

ADDING AND DROPPING COURSES

No courses may be added or dropped unless submitted on official forms, properly signed and accepted at the Admissions and Records Office during the regular add or drop period. Unauthorized withdrawal or dropping of a course will result in a final grade of F or NC.

A student may drop a course during the term subject to the following regulations: \cdot

- A course may be dropped if an approved Program Change card is filed in the Admissions and Records Office on or before the last day to drop a course as shown in the Academic Calendar.
- 2. A student may not drop a course after the 20th day of instruction as shown in the Academic Calendar except when approved by the School Dean (Division Chairman) for serious or compelling reasons. Permission to drop a course after this deadline requires the following statements and approval on the "Request to Drop Course with W Grade" form.
 - a. A statement of the serious or compelling reasons with supporting evidence.
 - b. Report of the course instructor on the student's academic performance to date and recommendation (if any).
 - c. Notification of the student's adviser, allowing him the opportunity to provide pertinent information concerning the student's withdrawal (if any).
 - d. Approval of the School Dean (Division Chairman).

Students may add courses by filing an approved Program Change card in the Admissions and Records Office not later than the last day to add a course, as shown in the Academic Calendar.

LEAVE OF ABSENCE

A student withdrawing from the College who will not be registered for any of the terms of an entire academic year may for reasons beyond his control (i.e., compulsory military duty, medical, etc.) request a "leave of absence" to protect his right to degree or credential requirements which were in effect at the time he was admitted to the College or admitted to a degree or credential program. This Request for Leave of Absence form is obtained

Policies and Procedures

from and filed with the Admissions and Records Office. Granting a "leave of absence" to a student does not guarantee readmission to the College nor exempt him for the regular application for readmission procedure and filing dates.

PLANNED STUDENT LEAVES

A Planned Student Leave is an interruption of a student's formal education in which he voluntarily ceases his enrollment at the College to pursue other educationally related activities to complete or enrich his academic program or to clarify his educational goals. The intent of this program is to make it possible for a student to suspend his academic work, leave the campus, and later resume his studies with a minimum of procedural difficulty. Planned Student Leave request forms are available from the Admissions and Records Office. Enrollment at another institution of higher education during a Planned Student Leave is subject to advance Concurrent Enrollment approval.

'l. Eligibility

Any enrolled student is eligible to request a Planned Student Leave. Newly admitted students who have not yet registered are also eligible; the primary intent in such instances being to provide an opportunity for beginning students to pause between high school and college, or between community college and four-year college enrollment.

2. Requests for Approval

- a. Each Planned Student Leave request must include a stated intent to reenroll at the College within a specified period, and a plan for how the time is to be used in relation to an educational objective. Acceptable requests will be those for planned travel, national service (Peace Corps, Vista), study, or other specific plans which will contribute to the student's educational objectives.
- b. The request must be filed prior to the period of absence and is subject to the approvals of the student's assigned academic adviser, the academic dean or division chairman, and the Registrar.
- c. Educational leaves may begin at any time. However, if a student chooses to begin a leave while he has course work in progress the student is subject to all normal regulations and clearances (e.g., official withdrawal, financial aid termination, etc.).

3. Duration of Leave

A typical Planned Student Leave will be for one academic year. A student may request, in writing, an extension of his leave prior to its termination. Under no circumstance shall successive leaves exceed two calendar years.

4. Return Responsibilities and Benefits

A student returning from an approved educational leave is required to submit an application for readmission but will not be required to pay another application fee or submit to residency and health screening if terms of the leave have been satisfied. A returning student must specify on his application that he is returning from an approved leave. Readmission is guaranteed providing the readmission application is filed according to the following schedule: Fall, November; Winter and Spring, August--or 30 days after leave approval, whichever is later. A student will be guaranteed his normal registration priority and rights to prior graduation requirements provided leave terms are fully met and proper return procedures are followed.

5. Student Record Entry

Each student enrolled in this program will have an entry made in his records indicating that he is on a planned student leave. The dates of the beginning and conclusion of the leave will also be recorded.

6. Compliance

A student on a Planned Student Leave who does not comply with the provisions of this policy and the conditions of the leave is subject to forfeiture of the advantages of this program.

WITHDRAWAL FROM COLLEGE

A student may withdraw from the College by filing an approved Withdrawal Card in the Admissions and Records Office. A student who withdraws from the College is deemed to be fully responsible for such action and is not eligible for readmission to the College prior to the beginning of the next term. A student who takes unauthorized leave may receive a final grade of F or NC in each course for which he was registered.

Students who officially withdraw by the last day to file for a partial refund of fees will have their refund automatically mailed to the address indicated on the Withdrawal Card. (See Refund Regulations.)

Withdrawals after the 20th day of instruction and prior to the last three weeks of instruction are permissible only for serious and compelling reasons. Permission to withdraw from the College with W grades in all course work after the 20th day requires approval of the School Dean (Division Chairman). Failure to obtain approval will result in NC grades in all course work. Withdrawals shall not be permitted during the final three weeks of instruction except in cases such as accident or serious illness where the cause of withdrawal is due to circumstances clearly beyond the student's control and the assignment of an incomplete is not practicable. Written approval is required by the School Dean (Division Chairman).

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INCOMPLETE WORK

An incomplete (I) signifies that a portion of required coursework has not been completed and evaluated in the prescribed time period due to unforeseen, but fully justified, reasons beyond the student's control and that there is still a possibility of earning credit. It is his responsibility to bring pertinent information to the instructor and to reach agreement on the means by which the remaining course requirements will be satisfied. A written copy of this agreement will be filed with the Department Chairman. A final grade will be assigned when the work agreed upon has been completed and evaluated.

An incomplete must be made up within the time limit set by the instructor and, in any case, no more than one year following the end of the term in which the grade was assigned. This limitation prevails whether or not the student maintains enrollment. Failure to complete the assigned work will result in an incomplete reverting to a grade of NC for grading options 1, 2, 3, and 6, and to a grade of F for grading options 4 and 5. (See Class Schedule for grading options.)

In case of prolonged illness or any emergency which necessitates an extension of time to complete the course, the student may petition through his School Dean. Students may not be permitted to graduate until all incompletes are removed. A student is not to reregister in a course in which he has an incomplete.

SATISFACTORY PROGRESS WORK

The "SP" (Satisfactory Progress) symbol is used in connection with courses that extend beyond one academic term. It indicates that work is in progress and has been evaluated and found to be satisfactory to date, but that assignment of a precise grade must await completion of additional work. Cumulative enrollment in units attempted may not exceed the total number applicable to the student's educational objective. Work is to be completed within a stipulated time period. This may not exceed one year except for graduate degree theses for which the time may be up to two years, but may not exceed the overall time limit for completion of all Master's degree requirements. Any extension of time limit must receive prior authorization by the School Dean.

All work must be completed within one calendar year of the date of first enrollment and a final grade will be assigned to all segments of the course on the basis of overall quality. Any extension of this time period must receive prior authorization of the School Dean.

STUDENT CLASSIFICATIONS

Class	level	:

Freshman . . . 0-29½ acceptable completed semester units Sophomore . . 30-59½ acceptable completed semester units Junior . . . 60-89½ acceptable completed semester units Senior . . . 90 or more acceptable completed semester units

Graduate . . . Possesses acceptable baccalaureate or

advanced degree

Admission status:

General Met all admission requirements Probational Admitted with scholastic deficiency Permitted to register pending official Conditional verification of admission status Extension Permitted to register for extension course work only Permitted to register for summer session course work only

Registration status:

Student enrolled in last semester Continuing Returning student who registered in a Former previous term but not the last semester Student who is registering in a regular

term for the first time

Full- and part-time students:

Undergraduate Classification

All undergraduates are classified as full- or part-time according to the unit total listed below:

Classification	Fall/Spring Units	Winter Units
Full-time	10.0 or more*	3.0 or more*
3/4	7.0 - 9.5	2.0 - 2.5
1/2	5.0 - 6.5	1.5
1/4	4.0 - 4.5	1.0
Less than 1/4	.5 - 3.5	.5

- Note: 1. During the Fall and Spring semesters these classifications also apply to postbaccalaureate students enrolled for less than 4 units of course work applicable to any graduate program.
 - During Winter Term these classifications apply to postbaccalaureate students enrolled for less than 2 units of course work applicable to any graduate program.

^{*}Other agencies (i.e., U. S. Immigration Office, etc.) have the prerogative to define full-time to meet their particular requirements.

Policies and Procedures

Graduate Classification

Postbaccalaureate students enrolled for 4 or more units of course work applicable to a graduate program are classified as full- or part-time according to the unit totals shown below. Students must enroll for 2 or more units applicable to a graduate program during Winter Term to be classified in this category.

Classification	Fall/Spring Units	Winter Units
Full-time	7.0 or more*	2.0 or more*
3/4	5.5 - 6.5	NA
1/2	4.0 - 5.0	NA
1/4	NA	NA
Less than 1/4	NA	NA

GRADE REPORTS TO STUDENTS

A report of final grades in all courses will be sent to the mailing address of a student after the conclusion of each semester, term, and summer session. Units may not in all cases reflect exact totals, i.e., grade changes, clearance of incompletes, repeated courses, etc.

CHANGE OF ADDRESS

A student who changes his mailing or permanent address after admission or registration should immediately notify the Admissions and Records Office. This information is needed in order to insure registration information, grades, correspondence, and other such material reach the student without unnecessary delay. The United States postal service also should be immediately notified of changes in mailing address.

TRAMSCRIPTS

Official transcripts of courses attempted at the College are issued only with the written permission of the student concerned. Partial transcripts are not issued. A fee of \$1 for each transcript issued must be received before the record can be forwarded. Transcripts from other institutions which have been presented for admission or evaluation become a part of the student's permanent academic file and are not returned or copied for distribution. Students desiring transcripts covering work attempted elsewhere should request them from the institutions concerned.

^{*} Other agencies (i.e., U. S. Immigration Office, etc.) have the prerogative to define full-time to meet their particular requirements.

PETITIONS

Students may petition for waiver of certain college-wide academic requirements or for review of decisions affecting their academic status. Petition forms and information concerning regulations may be secured from the Admissions and Records Office. All such petitions must be reviewed and signed by the student's major adviser and/or instructor, as appropriate, before being filed with the Admissions and Records Office.

A petition concerning a departmental major, minor, or other requirement should be directed to the appropriate department.

Petitions concerning reinstatement after disqualification are to be filed directly with the major adviser for submission of his recommendation to the School Dean.

FEES AND REFUNDS

Fees are established in accordance with State laws and the regulations of The Trustees of The California State University and Colleges and are subject to change as prescribed by law. Auditors must pay the same fees as students enrolled for credit.

Total registration fees for California residents are approximately \$190.00 per academic year (\$83.50 per semester; \$23.00 for Winter Term). Total registration fees and tuition for non-residents are approximately \$1,488.00 per academic year (\$646.50 per semester; \$195.00 for Winter Term).

REGISTRATION FEES

Payable at time of registration. No individual can be admitted to class prior to payment of all required fees.

Material and Service Fees:	
0.0 to 2.5 Units	\$ 42.00
3.0 to 6.5 Units	48.Ò0
7.0 to 9.5 Units	54.00
10 or more units (full-time student load)	63.00
Winter Term	18.00
Associated Student's Fees: Regular Students (7.0 Units or more)	
Regular StudentsFall Semester	9.00
Winter Term	2.00
Spring Semester	9.00
Limited StudentsFall Semester	4.50
Winter Term	2.00
Spring Semester	4.50
Summer Session	2.00
College Union Fees: Regular StudentsEach Semester Limited StudentsEach Semester Winter Term Summer Session	9.00 4.50 2.00 4.00
Health Facility FeeEach Semester (nonrefundable)Winter Term (nonrefundable)	2.50 1.00
OTHER FEES AND CHARGES (in addition to registration fees)	
Nonresident tuition including foreign nonresident: For the first 12 units (per unit or fraction of unit). For the 13th unit and over (maximum) per Semester Application Fee (nontransferable & nonrefundable)	43.00 563.00 20.00 5.00

Fees and Refunds

Graduation Fee
Check returned from bank for any cause 5.00
Transcript of Record
Failure to meet administratively required
appointment or time limit 2.00
Replacement of equipment or materials lost or
damaged
Library books or materials lost or damaged Cost plus \$1.00
Summer Session-per unit
Extension Courses-per unit:
Lecture and Discussion Courses
Parking Fees
Nonreserved spaces, autos:
Regular students, per semester 13.00
Winter Term 4.00
Reserved spaces, per month or major fraction thereof 8.00
Two-wheeled, self-propelled vehicles licensed by State
Department of Motor Vehicles, per semester 25% of above
Alternate vehicle (auto) in addition to fee for
first vehicle, per semester 2.00
Alternate, two-wheeled vehicle, per semester 2.00

NONRESIDENT STUDENTS

The nonresident tuition fee is payable by all students who have not been legal residents of the State of California for at least one year immediately preceding the opening of the school term.

Tuition payable by nonresident and foreign visa students is in addition to fees required of resident students, except for enrollment in extension or summer session.

The nonresident tuition fee will not be required of a student who is the child or spouse of an academic or administrative employee of The California State University and Colleges.

Questions regarding residency classification for admission eligibility and tuition purposes should be directed to the Residency Clerk in the Admissions and Records Office.

No tuition fee shall be required of any nonresident student who is a full-time employee of The California State University and Colleges or who is the child or spouse of an employee of The California State University and Colleges.

Certain certificated full-time employees of a California School District are deemed to be resident students.

Initial determination of residence status is made by College officials prior to or at the time of registration, and fees must be paid at registration. Full refund of nonresident fees paid will be made if final determination by the College's legal adviser 'indicates that a student is a legal resident.

REFUND REGULATIONS

Written application for refund of fees must be made on the Withdrawal Card available from the Admissions and Records Office.

Fees and Refunds

To receive a partial refund, the completed Withdrawal Card must be received in the Admissions and Records Office not later than the 14th calendar day following the first day of instruction.

Upon official withdrawals from the College by the stated refund deadline, the State will refund the total fees paid less \$12.50.

For each unit of nonresident fee charged, the State will refund the entire fee charged during the first week of each semester; thereafter 75% will be refunded the second week, 50% the third week, 25% the fourth week. There will be no refund after the fourth week.

THE STUDENT SERVICES FEE

The Student Services Fee for 1975-76 was recently established by the Trustees of The California State University and Colleges in lieu of the Material and Services Fee; however, the fee level was maintained at \$144 (for 12 or more units for the Academic Year). It is intended that this new fee will provide 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 counselor's salaries and clerical support plus operating expenses and equipment.
- 3) Testing: covers the cost of test officers, psychometrists, clerical support, operating expenses and equipment.
- 4) Placement: provides career information to students and faculty for academic program planning and employment information to graduates and students.
- 5) Financial Aids Administration: includes the cost of the counseling and business services provided in connection with the financial aid programs.
- 6) Health Services: provides health services to students and covers the cost of salaries of Medical Officers and Nurses plus related clerical and technical personnel as well as operating expenses and equipment.
- Housing: includes the cost of personnel providing housing information and monitoring housing services provided to students.
- 8) Student Services Administration: covers 50% of the cost of the Dean of Students Office which has responsibility for the overall administration of student services.

Prior to 1975-76 the Student Services fee was known as the Materials and Service fee and not only covered the above expenditures but covered the cost of Instructional and Audio Visual supplies

and contractual services. A Task Force recommended that responsibility for financing these expenditures be transferred to the State and that the basis for this fee be more adequately communicated to students and campus staff. It should be noted that the 1975-76 Student Services fee is subject to change by future Board of Trustees action made necessary by budget actions of the Executive and Legislative branches of government.

DEBTS OWED TO THE INSTITUTION

From time to time the student may become indebted to the insti-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.

AVERAGE ANNUAL COSTS AND SOURCES OF FUNDS
PER FULL-TIME EQUIVALENT* STUDENT
IN THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

The nineteen campuses of The California State University and Colleges are financed primarily through funding provided by the taxpayers of California. For the 1974-75 year, the total cost of operation is \$603 million, which provides continuing support for 231,295 full-time equivalent (FTE*) students. This results in an average cost per FTE student of \$2,608 per year. Of this amount, the average student pays \$254. Included in this average student payment is the amount paid by nonresident students. The remaining \$2,354 in costs are funded by state and federal taxes.

^{*}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.

Fees and Refunds

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

1974-75 PROJECTION OF TOTAL COSTS OF CAMPUS OPERATION (Including Building Amortization)

Enrollment: 231,295 FTE

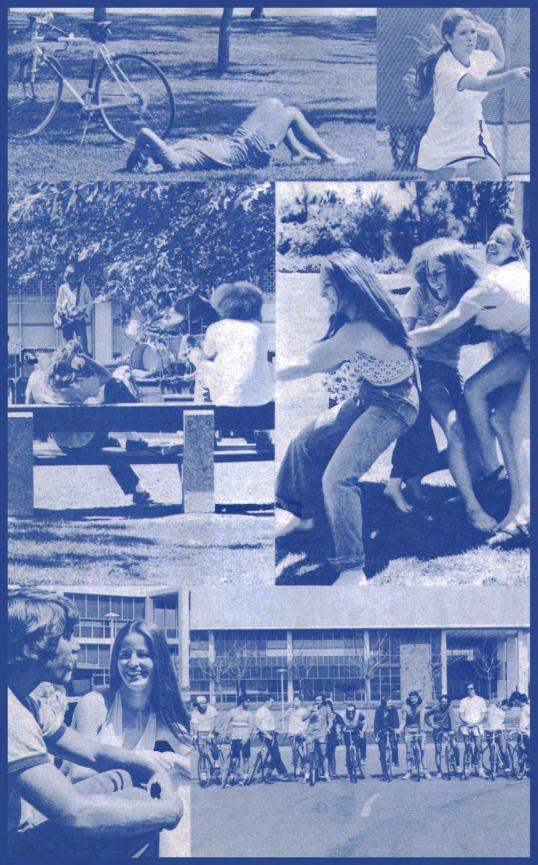
	Amount	Average Cost Per Student (FTE)*	Percent- age
State Appropriation (Support) State Funding (Capital Outlay)* Student Charges	58,806,800	\$2,111 124 254***	81.0 4.8 9.7
Federal (Financial Aids) Total	27,456,316 \$603,041,644	119 \$2,608	4.5 100.0

^{*}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 more than 14,000 acres of land and the wide range of facilities and equipment on the 19 campuses are currently valued at approximately \$1.2 billion. Amortized over a 40-year period, they are valued at \$125 per FTE student.

^{***} The average costs paid by a student include the student service fee (formerly called the materials and service 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 \$254 depending on whether they are part-time, full-time, resident or nonresident students.





The Student Services Office is established to meet student needs and offer assistance so that all students may fully benefit from the educational program. Specific services are listed on the following pages and completely described in the Student Handbook.

INTERNATIONAL PROGRAMS

An overseas study program is offered by The California State University and Colleges International Programs in which students enroll for a full academic year simultaneously at their home campuses, where they earn academic credit and maintain campus residency, and at a distinguished foreign university or a special program center.

Cooperating universities abroad include the University of Provence, France; the Universities of Heidelberg and Tubingen, Germany; the University of Florence, Italy; the Universidad Ibero-Americana, Mexico; the Universities of Granada and Madrid, Spain; the University of Uppsala, Sweden; Lincoln College and Massey University, New Zealand; and Waseda University, Japan. United Kingdom, cooperating universities, which may vary from year to year, include Aberdeen, Dundee, Bangor, Heriot-Watt, Leicester, London, Oxford, Liverpool, Lampeter, and Sheffield. In addition, California State University and Colleges students may attend a special program in Taiwan, Republic of China, or an architectural program in Copenhagen, Denmark. New Zealand: A special program in agriculture is offered in affiliation with Massey University and Lincoln College. Academic calendar is February to October to allow for Southern Hemisphere's reverse seasons.

Eligibility is limited to students who will have upper division or graduate standing during their year of participation, who have a 2.5 overall grade point average (3.0 for the United Kingdom program), who show ability to adapt to a new environment, and who, in the cases of France, Germany, Mexico, and Spain, have completed two years of college level study (or the equivalent) in the language of instruction at the foreign university. Selection is made by a faculty committee on the student's home campus and by a statewide faculty committee.

The International Programs is supported by state funds to the extent that such funds would have been expended had the student concerned continued to study in California. Students assume costs for pre-departure orientation, insurance, transportation, housing, and meals. Home campus registration fees, tuition on the home campus for out-of-state students (if the student is not a California resident), and personal incidental expenses or vacation travel costs while abroad are also paid by the student. The Office of International Programs collects and administers funds for those

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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. Students accepted in the International Programs may apply for any financial aid available at their home campuses, except work-study and college opportunity grants.

Application for the 1976-77 academic year must be submitted before February 13, 1976 (except for New Zealand and United Kingdom applicants who must submit applications by May 16, 1975 and January 9, 1976, respectively). Applicants are notified of acceptance by April 1, 1976 (New Zealand by June 1, 1975). Detailed information may be obtained from the College Student Services Office or by writing to The California State University and Colleges International Programs, 5670 Wilshire Boulevard, Los Angeles, California 90036.

INTERNATIONAL PROGRAMS COURSES

Students enrolled at California State College, Stanislaus under the California State University and Colleges International Study Programs register concurrently at Cal State, Stanislaus and at the host institution abroad. Credit for work taken abroad is in terms of Stanislaus courses. If the student studying abroad finds no counterpart courses at Stanislaus, he should register for one of the courses listed below.

- INST 2930. Projects in Study Abroad: (Subject) No maximum number of units. Open only to students in California State University and Colleges International Study Program.
- INST 4930. Projects in Study Abroad: (Subject) No maximum number of units. Open only to students in California State University and Colleges International Study Program.
- INST 5930. Projects in Study Abroad: (Subject) No maximum number of units. Open only to students in California State University and Colleges International Study Program.

ORIENTATION

Orientation provides new students with an opportunity to learn about services, personnel and activities that are available as well as academic information. An Orientation Day is held in the fall and mailers sent in winter and spring.

COUNSELING

The Counseling Service is staffed with counselors that are available to talk with students on a voluntary and confidential basis. The service offers to students the choice of individual or group counseling.

The Counseling Service provides the students the opportunity to explore educational and vocational planning as it relates to their goals. Also, the opportunity is provided to confront problems of emotional and social development, marriage and family, selective service, family planning, drugs, etc.

HOUSING

Stanislaus has a wide variety of housing including its own oncampus 168-bed coeducational dormitory, 700 private apartments within one block of campus, and various homes for rent and "liveins." The dormitory is a new addition to the campus and includes lounge space, cafeteria, swimming pool, volleyball courts, etc. There is a Housing Office which lists all available housing and also can arrange for roommates if needed. Call 633-2171 for assistance.

CAREER PLANNING AND PLACEMENT

Students are encouraged to avail themselves of the opportunity for interest and ability testing, and to take advantage of the facilities of the career library as they investigate possible career choices. Placement services include help in developing a personal information file, in requesting recommendations, and writing resumes and letters of application. Interviews with employers seeking personnel are arranged both on- and off-campus, and lists are maintained of open positions in the immediate area as well as statewide.

FACILITY RESERVATION

Reservation of campus facilities, except for regularly scheduled classroom activities, must be done through the Student Services Office. Only chartered student clubs, the ASCSCS, and other recognized college groups may use college facilities. Consult the policy on "Use of Campus Facilities" and "Policy on Special Events" in the office for details.

PART-TIME EMPLOYMENT

A current listing of local off-campus job opportunities is maintained in the Student Services Office for students' use. In addition, a list is maintained of students with specific skills (e.g., babysitting, typing, yardwork, etc.). If you wish to be placed on this list, check with Student Services.

'FINANCIAL AIDS

The Financial Aid Office administers federal and state financial aid programs available for qualified students to help meet their educational expenses. New students who wish to be considered for financial aid should complete the financial aid section of the College Admissions Application. Other students

· Student Services

must complete either the Parents' Confidential Statement (PCS) or the Student's Financial Statement (SFS). There are application deadlines which must be carefully observed.

The Financial Aid Office administers federal and state financial aid programs to assist those students who would be denied a college education due to insufficient financial resources. New students who wish to be considered for financial aid should complete "Part C" of the Common Admission Application. The Financial Aid Office will request additional information upon receipt of the "Part C" form. Students are encouraged to complete their applications as early as possible since available funds are limited.

Financial aid programs available to qualified students are:

NATIONAL DIRECT STUDENT LOAN (NDSL) - The NDSL is a federal program providing long-term, low-interest loans in amounts governed by established need and availability of funds. Three percent simple interest and repayment of the principle begins nine months from the date the borrower ceases to be a full-time or half-time student. In some cases deferment of payment and full forgiveness of the loan and interest may be possible.

COLLEGE WORK-STUDY - Students who qualify for financial aid may be able to work on or off campus for all or a portion of their educational expenses.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG) - These awards are federally funded and are only granted to undergraduate students who have exceptional financial need. Preference is given to those students who come from low-income backgrounds.

LAW ENFORCEMENT EDUCATION PROGRAM (LEEP) - The Law Enforcement Education Program makes available grants for fees and books each semester to full-time employees of law enforcement agencies. Loans may be made available to students who intend to make law enforcement a career. The loan is reduced at the rate of 25% for each year of service in a public law enforcement agency upon graduation.

STATE EDUCATIONAL OPPORTUNITY PROGRAM GRANT - Students who are admitted to the college under the Educational Opportunity Program and who have financial need may be funded under this state program.

FEDERALLY INSURED STUDENT LOAN PROGRAM (FISL) - Loans are made available to full-time students through private lending institutions such as banks, savings and loans, and credit unions. Repayment of the loan and interest is deferred until nine months after the student has graduated or left school. The application and related forms are available at the Financial Aids Office.

STUDENT ASSISTANT PROGRAM - This work program is funded through the state budget and is administered by the various academic departments on campus. EMERGENCY LOAN FUND - Emergency loans to meet educational expenses are available to enrolled students. A maximum of \$50 may be borrowed with repayment in forty-five days.

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 23762. Students qualifying for these benefits are known as Alan Pattee scholars.

Students interested in more information regarding financial aid programs or application procedures should inquire directly to the Financial Aid Office, California State College, Stanislaus.

HEALTH SERVICES

All admitted students must submit a health history statement. It is also strongly recommended that all admitted students obtain a complete physical examination prior to entrance, particularly those who will be involved in intercollegiate athletics.

The College maintains a Health Center in Room 117 of the Class-room Building, which is staffed by a full-time registered nurse and part-time doctors. In some cases referral may also be made to local community doctors or hospitals. These services are provided as part of the student health fees and include emergency, outpatient care for injury and acute illness; transportation; some medications; necessary lab tests and X-rays. Any off-campus referrals are usually limited to one visit under the policy.

SUPPLEMENTAL HEALTH INSURANCE - The very basic emergency outpatient service described above should be supplemented by an individual policy of the student or his parents. The College does offer a group policy which is available on the student's request. The cost is nominal and provision can be made for dependents.

STUDENT GOVERNMENT AND ACTIVITIES

The Associated Students (ASCSCS) is the elected government of the students of CSCS and has a budget composed of student body fees. Operated under the supervision and with the advice of the College President and the Dean of Students, it represents the student position on policy issues and also plans a program of activities for the students and the community which is intended to complement the academic program of the College. There is also a group of clubs organized for special purposes and activities.

INTRAMURAL AND INTERCOLLEGIATE ATHLETICS

There is a substantial intramural program available throughout the year including football, basketball, volleyball, etc. The College also participates in ten intercollegiate sports: baseball,

Student Services

basketball (male and female), golf, cross country, track, tennis (male and female), volleyball (female), soccer and wrestling. The men participate in the Far Western Conference of the NCAA and the women in the Northern California Intercollegiate Athletics Conference.

TESTING

The Testing Office provides a comprehensive program of services for students, faculty and staff. Tests of aptitude, academic achievement, reading proficiency and study habits, vocational interests and temperament/personality are available to students to assist them in making educational, vocational and personal decisions. A program of "Credit by Examination" is also administered by this office, enabling students to obtain academic credit for prior college-level training either formal or informal, and to challenge some established college courses under certain circumstances. Information concerning all national testing programs such as Graduate Record Examinations, Medical College Admission Tests and National Teacher Examinations is available. Assistance with test selection, test construction and the analysis and improvement of evaluation techniques is provided on request to faculty, staff and students.

CAMPUS TUTORIAL PROGRAM

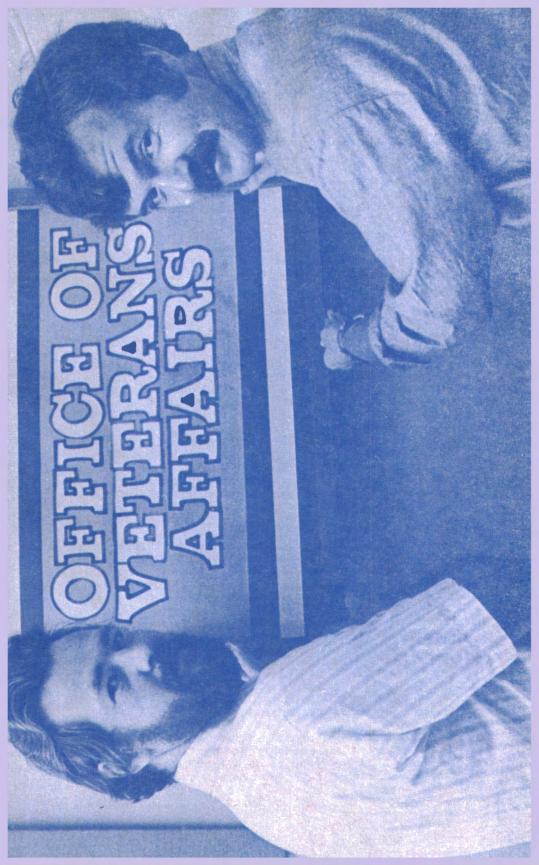
There is a tutorial program available to students having difficulty with almost any academic area on campus. Tutoring is done on an individual basis by students and faculty.

OPERATION SHARE TUTORIAL PROGRAM

The Share tutorial program is a student organized project through which volunteer college and high school students work with elementary school children a minimum of two hours per week. These children are often from disadvantaged backgrounds and need both academic and developmental assistance.

EDUCATIONAL OPPORTUNITY PROGRAM

The program offers students a combination of academic supportive services (tutoring, counseling, advising, etc.), as well as financial aid, where qualified. A prospective EOP student should (1) contact the campus EOP Office before or at the time of admission application and (2) file an admission application form in the initial filing period under regular admission procedures. Only those seeking special academic admission and/or support services should apply as EOP.



STUDENT CONDUCT, RIGHTS AND RESPONSIBILITY

The College assumes that students are mature individuals who have a serious academic purpose in attending college and that they will conduct themselves individually and in groups in an appropriate manner. Departures from appropriate conduct can result in sanctions from oral reprimands to expulsion. Actions warranting such measures include violations of Title 5 of the California Administrative Code, regulations of the California State University and Colleges, the College or public law. The College and State regulations are outlined in the Student Handbook which can be obtained in L-102 along with procedures used in case of violations. There is also a Statement of Student Rights and Responsibilities and a Student Grievance Procedure in Academic Matters available.

VETERANS PROGRAM

There is a Veterans Affairs Office on campus which aids veterans with academic, personal, and financial problems. In particular, it offers assistance with matters concerning VA benefits, transitional academic difficulties, tutoring, personal counseling, job placement, etc. There is a Veterans Administration Representative (Vet. Rep.) assigned to the campus to deal with VA benefit difficulties.

VETERANS ASSISTANCE

The College maintains liaison with the U.S. Veterans Administration and the California State Department of Veterans Affairs. The Registrar, the Veterans Coordinator and the Veterans Representative assist veterans in conducting their relations with these agencies.

ELIGIBILITY - The veteran must have served on active duty for a continuous period of 181 days or more, any part of which occurred on or after February 1, 1955, or, if he served for less than 181 days, must have been discharged or released on or after February 1, 1955, because of service connected disability.

PROCEDURE - Application must be made to the Veterans' Administration in San Francisco through the Veteran's Clerk in the Admissions and Records Office. The VA then determines the veteran's eligibility and notifies the veteran.

FULLTIME UNIT LOAD - Veterans should refer to the section of this catalog titled "Student Classifications" for the listing of units required for fulltime and parttime enrollment status.

INFORMATION - Further information about Veterans' Administration or Cal-Vet regulations is available from the Veterans Clerk in the Admissions and Records Office, or the Veterans Coordinator or Veterans Representative in the Veterans Affairs Office.

4-1-4

The 4-1-4 academic calendar inaugurated at California State College, Stanislaus in 1973-74 is a modified semester system. On a yearly basis, the 4-1-4 program requires the same instructional weeks, the same academic credits, and the same fee costs as in a traditional quarter or semester system. The 4-1-4 calendar makes no changes in the basic requirements for a baccalaureate degree. Total units required for graduation, general education requirements, the work required for academic credit--all remain essentially the same.

WINTER TERM

As an integral part of the 4-1-4 program at Stanislaus, winter term courses are required for graduation. Normally, students matriculating as freshmen must complete three winter term courses, students entering as sophomores or juniors must take two courses, and senior transfers must enroll in one winter term. (See Residence Requirements for details.)

Working students who can demonstrate the necessity of a parttime load during winter term may petition to enroll for two units of Individual Study.

If a student is unable to complete a winter term course due to illness or other circumstances beyond his control and thus is unable to fulfill the winter term requirement for graduation, he may petition for an alternative—as is the case with most college requirements.

Winter term requirements do not apply to graduate students, nor to continuing and transfer students who choose to retain the graduation requirements of catalogs prior to 1973-74. All students, of course, are encouraged to enroll in winter term courses.

DEGREES OFFERED

The College grants the Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Master of Business Administration, and Master of Public Administration degrees.

ELECTION OF REGULATIONS

A matriculated student who has been in continuous enrollment pursuing the same objective may elect to meet baccalaureate graduation requirements in effect either at the time of his first entering a degree program at a California community or CSUC campus, or at the time of his graduation. (See Evaluation and Acceptance of Credit.)

APPLICATION FOR GRADUATION

A prospective candidate for a baccalaureate degree should submit an application for graduation to the Admissions and Records Office when two semesters remain to complete requirements for his degree. In any case, a student should not apply later than the date indicated in the Academic Calendar.

FACULTY APPROVAL

Approval of the major adviser and the department concerned is required before the College may award a degree.

GRADUATION HONORS"

Graduation honors are awarded to students at commencement on the basis of their overall grade point average achieved in their undergraduate work, as follows:

REQUIREMENTS FOR A BACCALAUREATE DEGREE

To qualify for a baccalaureate degree, a student must satisfy the specific requirements in the following areas:

UNITS

A minimum 124 semester units is required. At least 40 units must be in courses recognized for upper division credit.

RESIDENCE

A student must complete a minimum of 24 semester units at the College. At least 12 of these 24 units must be completed among the last 20 units taken in fulfillment of degree requirements.

Credit in summer sessions may be counted as residence credit on a unit-for-unit basis. Extension course credit or credit by examination will not be counted as residence credit.

In addition, students must complete winter term course work as follows:

- Students entering as freshmen with less than 15 semester units must complete 12 units of winter term course work.
- Students entering as freshmen with 15 or more units, entering as sophomores, or entering as juniors with less than 75 semester units must complete 8 units of winter term course work.
- Students entering as juniors with 75 or more semester units or entering as seniors must complete 4 units of winter term course work.

SCHOLARSHIP

Each student must complete with a grade point average of 2.0 (C) or better (1) all acceptable college units attempted, (2) all units attempted in a major field of study, and (3) all residence credit units attempted at the College.

GENERAL EDUCATION-BREADTH REQUIREMENTS (a)

To provide more options for students, the College has adopted a flexible General Education program within the requirements of the California Administrative Code, Title 5, Section 40405.

The College's General Education requirements total a minimum of 40 semester units. The courses and units are distributed among the four areas of Natural Sciences, Social Sciences, Humanities, and Basic Subjects, as well as courses required in U.S. history, government, and physical education. The College accepts certification of General Education-Breadth requirements by a California community college or other CSUC campus according to regulations of Title 5. The College upon request will certify completion of these requirements to another CSUC campus.

NATURAL SCIENCES (b)

A minimum of 6 semester units are required to include at least one course from each of the following two groups, one of which must include a lab.

BIOLOGICAL SCIENCES

- BIOL 1010. Principles of Biology (lab), 4 units
- BIOL 2310. Human Genetics, 2 units
- BIOL 2650. Environmental Biology, 2 units
- BOTY 1050. Introduction to Botany (lab), 4 units
- ZOOL 1050. Introduction to Zoology (lab), 4 units

2. PHYSICAL SCIENCES

- ASTR 2100, 2110. Descriptive Astronomy (lab optional), Lecture, 3 units; lab, 1 unit
- CHEM 1000. Chemistry in the Modern World, 3 units
- Principles of Chemistry I (lab), 5 units CHEM 1100.
- Principles of Chemistry II (lab), 5 units CHEM 1110.
- CHEM 2400. Science of Winemaking, 4 units
- GEOL 2100, 2110. Principles of Geology (lab optional)
 - Lecture, 3 units; lab, 1 unit
- PHSC 1300. Environmental Pollution, 2 units
- PHYS 1100. Basic Physics I (lab), 5 units
- PHYS 1110. Basic Physics II (lab), 5 units
- PHYS 1500. Energy and Matter (lab), 3 units

SOCIAL SCIENCES (c)

A minimum of 6 semester units are required to include at least two courses from the following list.

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ANTH 2000.
            Cultural Profiles:
                                Introduction to Peoples of
            the World, 3 units
ANTH 2060.
            Introduction to Cultural Anthropology, 3 units
ANTH 2080.
            Introduction to Physical Anthropology, 3 units
ANTH 2090.
            Introduction to Prehistoric Archeology, 3 units
ECON 2500.
            Principles of Economics I. 4 units
ECON 2510.
            Principles of Economics II, 4 units
ETHS 2000.
            Contemporary Black Studies, 3 units
ETHS 2100.
            Contemporary Chicano Studies, 3 units
ETHS 2200.
            Contemporary Asian-American Studies, 3 units
ETHS 2300.
            Contemporary Native American Studies, 3 units
GEOG 2010.
            Introduction to the Physical Environment, 3 units
GEOG 2020.
            Introduction to Cultural Geography, 3 units
GEOG 2400.
            World Regional Geography I. 3 units
GEOG 2410.
            World Regional Geography II, 3 units
HIST 1010.
            Western Civilization I, 3 units
HIST 1020.
            Western Civilization II, 3 units
HIST 2050.
            Third World I, 4 units
HIST 2060.
           Third World II, 4 units
PSCI 2010.
            Modern Political Ideologies, 3 units
PSCI 2600.
            Issues in International Politics, 3 units
PSYC 2010.
            Introduction to Psychology, 3 units
PSYC 2020.
            Introduction to Psychological Methods, 3 units
PSYC 2150.
            Psychology of Marriage and Adjustment, 3 units
SOCL 1010.
            Introduction to Sociology, 3 units
SOCL 2240.
            Social Problems, 3 units
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HUMANITIES (d)

A minimum of 5 semester units are required to include at least one course from each of the following two groups.

1. LITERATURE/PHILOSOPHY

ENGL 1010.	Introduction to Literature, 3 units
ENGL 1500.	Literature for Non-Majors, 3 units
PHIL 1010.	Introduction to Philosophy, 3 units
PHIL 2200.	Ancient Greek Philosophy, 3 units
PHIL 2230.	Seventeenth & Eighteenth Century Philosophy,
	3 units

2. ARTS

ART	1000.	Introduction to Drawing, 3 units
ART	2100.	Art History Survey I, 3 units
ART	2110.	Art History Survey II, 3 units
DRAM	1010.	Introduction to Theatre, 3 units
DRAM	2010.	Theatre & Society, 3 units
DRAM	2300.	Theatre Workshop I, 2 units

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DRAM 2350. Rehearsal & Performance, 3 units
MUS 1000. Introduction to Music, 3 units
MUS 2400. Orchestra, 1 unit (e)
MUS 2410. Chorale, 1 unit (e)
MUS 2420. College Choir, 1 unit (e)
MUS 2430. Chamber Singers, 1 unit (e)
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MUS 2440. Symphonic Wind Ensemble, 1 unit (e)

BASIC SUBJECTS

A minimum of 8 semester units are required to include at least one course from each of the following three groups.

1. ENGLISH COMPOSITION (f)

ENGL 1000. English Composition, 3 units

2. MATHEMATICS (g)

```
Math for Liberal Arts Students, 3 units
MATH 1000.
MATH 1030.
           Elementary Foundations of Mathematics I,
MATH 1040.
           Elementary Foundations of Mathematics II,
            3 units
MATH 1050.
           Basic College Algebra, 3 units
MATH 1100.
           Precalculus, 3 units
MATH 1410. Calculus I, 4 units
MATH 1420. Calculus II, 4 units
MATH 1500.
           Finite Mathematics, 3 units
MATH 1600.
           Statistics, 4 units
MATH 1610.
           Statistics for Decision Making, 3 units
MATH 1910.
           Calculus with Applications I, 3 units
MATH 1920.
           Calculus with Applications II, 3 units
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3. OTHER BASIC SUBJECTS

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BUS 2000.
            Introduction to Computers, 2 units
ENGL 2050.
            Technical and Report Writing, 3 units
FREN 1010.
            Elementary French I, 4 units
FREN 1020.
            Elementary French II, 4 units
GERM 1010.
            Elementary German I, 4 units
            Elementary German II, 4 units
GERM 1020.
            Computers in Society, 3 units
MATH 1200.
MATH 2000.
            Introduction to Computers, 3 units
PHIL 1100.
            Logic, 3 units
SPAN 1010.
            Elementary Spanish I, 4 units
SPAN 1020.
            Elementary Spanish II, 4 units
SPCH 2000.
            Speech Communication, 3 units
            Oral Communication Processes, 4 units
SPCH 2010.
SPCH 2100.
            Discussion and Debate, 3 units
SPCH 2400. Oral Interpretation, 3 units
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In addition to a minimum of 32 semester units selected from the above four areas of Natural Science, Social Science, Humanities, and Basic Subjects, students must also complete course requirements in U.S. history, government, and physical education as indicated below.

 UNITED STATES HISTORY AND CONSTITUTION: CALIFORNIA STATE AND LOCAL GOVERNMENT

The <u>California Administrative Code</u>, Title 5, Section 40404 requires ". . . . appropriate courses in the Constitution of the United States, and in American history, including the study of American institutions and ideals, and of the principles of state and local government established under the Constitution of this State ". Completion of the following courses will satisfy these requirements:

A. One of the following courses covering United States history:

HIST 2600. Problems in U.S. History, 3 units

HIST 3610. Colonial America, 3 units

HIST 3620. Ante-Bellum America, 3 units

HIST 3630. America After the Civil War, 3 units

HIST 3640. Contemporary America, 3 units

B. One course covering United States Constitution and California State and local government:

PSCI 1200. American Government, 3 units

⁽a) Any student who is under catalog year graduation requirements prior to 1975-76 will be permitted to substitute this program of General Education requirements for one of a prior year.

⁽b) Requirements may be satisfied by acceptable scores on the CLEP Natural Sciences General Examination.

⁽c) Requirements may be satisfied by acceptable scores on the CLEP Social Sciences General Examination.

⁽d) Requirements may be satisfied by acceptable scores on the CLEP Humanities General Examination.

⁽e) Course must be taken two consecutive semesters for credit to be applicable.

⁽f) Requirement may be satisfied by acceptable score on the CSUC English Equivalency Examination.

⁽g) Requirement may be satisfied by acceptable score on the CLEP Mathematics General Examination.

⁽h) Students may satisfy subject requirements in United States History and Constitution and California State and Local Government by passing departmental examinations in these fields. HIST 4740, Constitutional History of the United States, 3 units, will fulfill the U.S. Constitution portion of these requirements.

2. PHYSICAL EDUCATION

A one-semester physical education activity course at the PHED 1000 level is also required by the College for a baccalaureate degree.(i)

A minimum of 40 semester units of General Education is required. Any undergraduate course is acceptable as additional units toward this requirement, except for those in the discipline(s) of a student's major. For example, a physical education major may take zoology for additional units, but not physical education or health courses.

MAJOR

The major consists of a pattern of upper division courses which are prescribed by the department or school concerned, are exclusive of General Education requirements, and must be preceded by specified prerequisites in the major field of study and in supporting fields. Required courses in a major will total not less than 24 upper division semester units in that discipline. More than one major may be completed.

The College offers programs leading to the baccalaureate with a major in the following areas (available concentrations indicated):

Anthropology

Art

Biological Sciences

Botany

Entomology

Environmental Sciences

Zoology

Business Administration

Accounting Finance

Marketing

Operations Administration

Personnel Management

Chemistry

Environmental Sciences

Child Development

Drama Economics English French

Geography History

History of Religions

Liberal Studies

Mathematics

Environmental Sciences

Operations Research

Statistics

Music

Physical Education

Physical Sciences Applied Physics

Applied Injuics

Earth & Space Sciences

Environmental Sciences

Physics

Political Science

Public Administration

Psychology

Social Sciences

Interdepartmental Program Administration of Justice

International Studies

Urban & Community Studies Sociology

Spanish Special Major

Speech

Communication Disorders
Organizational Communication

Note: Students seeking teaching credentials are advised to consult a credential adviser. (See Division of Education.)

A student may be exempted from the physical education requirement if the student is over 25 years of age.

As the College grows, new majors will be added. Freshmen may claim any additional majors developed and offered by the time they reach upper division standing.

SPECIAL MAJOR

Special academic programs leading to a degree not accommodated by existing standard degree programs are available for strongly motivated students at the College. A program as designed jointly with a volunteer committee of faculty advisers may be submitted for approval on a Request for Special Major Program form. This committee must consist of three professors from at least two schools. A student interested in a Special Major program may search out a volunteer faculty advisory committee on his own.

Permission of the Council of Academic Deans and the Vice President for Academic Affairs is required in all cases. For meritorious programs, the Council of Academic Deans is prepared to suspend normal College rules governing majors, minors, general studies, and the like (but not State laws nor Trustee regulations). The proposal may be for a special major only or for a comprehensive program covering the student's undergraduate experience at the College. The applicant must have at least 30 semester units remaining to complete minimum requirements for a baccalaureate degree at the College before permission may be granted for a Special Major.

MINOR

Completion of a minor is a requirement for a baccalaureate degree when required by the department of the major. A minor is a pattern of prescribed course work consisting of a minimum of 8 upper division semester units and a minimum of 15 semester units in courses acceptable to the major adviser and the department concerned. Departmental minors normally require one-half of the number of units required for a major within a department. More than one minor may be completed.

A minor for the baccalaureate degree, if required, may be selected from the listing below:

French Physical Education Anthropology Geography Physical Sciences Art German Physics Art History History Political Science Biological Sciences Business Administration History of Religions Psychology Mathematics Sociology Chemistry Earth Sciences Music Spanish Economics Philosophy Speech Technology & Change English

As the College grows, new minors will be added. Freshmen may also claim any additional minors developed and offered by the time they reach upper division standing.

DEPARTMENTAL REQUIREMENTS

All requirements of the department of the major must be completed to qualify for a baccalaureate degree.

ALL COLLEGE REGULATIONS

Compliance with all regulations prescribed by the College is a requirement for graduation with a baccalaureate degree.

REQUIREMENTS FOR AN ADDITIONAL BACCALAUREATE DEGREE

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

- 1. Complete a minimum of 24 semester units in residence at the College after requirements for his last degree have been fulfilled; at least 12 of these units must be in the subject field of the student's current major; and at least 4 units in winter term course work.
- Comply with all graduation requirements of the College including the General Education requirements and approval by the major adviser, department of the major, and the faculty.
- 3. Maintain at least a 2.0 (C) grade point average for all Stanislaus residence course work taken while pursuing the additional degree.
- Complete a major in a discipline other than that in which a previous degree was earned.

Rather than complete requirements for an additional degree, a postbaccalaureate student may, if s/he prefers, complete only requirements for an additional major. Such a program must be completed under the supervision of an academic department and is certified only through the Admissions and Records Office.

GRADUATE PROGRAMS

The College offers Master of Arts programs in Education, English, History, and Speech; Master of Business Administration; Master of Public Administration; and a Master of Science program in Psychology. Specific requirements within these degree programs will be found in the catalog sections of the department concerned.

GRADUATE APPLICATION PROCEDURES

All applicants for any type of post-baccalaureate status (e.g., master's degree aspirants, those seeking credentials, and those interested in taking courses for professional growth, etc.) must file a complete application packet for admission to postbaccalaureate status within the appropriate filing period. A complete application packet for admission to post-baccalaureate status includes an "Application for Admission/Readmission," a "Supplemental Application for Post-Baccalaureate/Graduate Admission," and the \$20 non-refundable application fee. Postbaccalaureate applicants who were enrolled as undergraduate students at Cal State Stanislaus in the term immediately preceding the term for which they now wish to apply are also required to complete and submit an application packet and remit the \$20 nonrefundable application fee. Applicants seeking financial aid should also complete and submit with the application material specified above, an "Application for Financial Aid."

Since applicants for post-baccalaureate programs will be limited to the choice of a single campus on each application, redirection to alternative campuses will be minimal. In the event that a post-baccalaureate applicant wishes to be considered by more than one campus, it will be necessary to submit a separate application (and fee) to each.

Application materials may be obtained from the Admissions Office or the Graduate Studies Office of any campus within the California State University and Colleges system and should be filed with the campus of choice.

Applicants must contact the department for instructions regarding specific departmental admission procedures.

TRANSCRIPTS

A graduate who is seeking admission to post-baccalaureate study, a graduate program, or a credential program must request that two copies of complete official college transcripts be sent directly to the Admissions and Records Office from each college (other than Stanislaus) and university at which he registered.

ADMISSION TO POST-BACCALAUREATE STANDING: UNCLASSIFIED

A student not having a graduate degree or credential objective may be admitted to Unclassified-Post-Baccalaureate standing. Such admission requires an acceptable baccalaureate degree or equivalent academic preparation as determined by the College, and good standing in the last college attended.

Students admitted in this category are those having declared undergraduate objectives (e.g., a second bachelor's degree) or students seeking to enroll in specific courses for personal or professional growth.

ADMISSION TO GRADUATE STANDING: CONDITIONALLY CLASSIFIED

Students seeking admission to a specific graduate degree program who have deficiencies in prerequisite preparation may be admitted to the program with conditionally classified standing. Students admitted on conditionally classified status will be informed by their departments of deficiencies to be made up in order to have their conditional standing removed.

ADMISSION TO GRADUATE STANDING: CLASSIFIED

Graduate classified standing is awarded to an applicant for admission to a degree program who meets all the criteria for admission specified by the College and the department(s) offering the program.

ADVANCEMENT TO MASTER'S DEGREE CANDIDACY

Classified graduate standing gives a student permission to work toward qualifying for candidacy. Advancement to candidacy gives a student permission to proceed toward qualifying for the degree. Requirements for advancement to candidacy include the following:

- 1. Classified graduate standing, including satisfactory performance on any required test.
- 2. Completion of any undergraduate prerequisites which the adviser specifies.
- 3. Satisfactory completion of such departmental and scholastic achievement tests as may be required.
- 4. A minimum grade point average of 3.0 (both overall and at the College) on all upper division and graduate course work from the date of embarking on the first course of the proposed master's degree program.
- 5. Satisfactory completion of the foreign language requirements for those programs having such a requirement.
- 6. Completion at the College of appropriate course work in the program with a 3.0 average on all completed work appearing on the program.
 - 7. Approval by the appropriate departmental graduate committee.

8. As soon as possible after the completion of Steps 1 through 7, submission to the department of a properly signed petition for advancement to candidacy, including a departmentally approved program of graduate study for the master's degree.

MASTER'S DEGREE PROGRAM REQUIREMENTS

The program requirements for master's degrees assume substantial undergraduate preparation to the field. A student lacking this preparation will find it necessary to exceed the minimum requirements indicated below.

The program for the master's degree is a coherent pattern of (1) courses specified for an approved field of concentration, and (2) additional courses selected to meet the student's particular needs. It consists of at least 30 units completed after the bachelor's degree and within seven years just preceding the granting of the master's degree. Only graduate courses (5000 series) and such upper division courses (4000 series) as are recommended by the departments and 6000 series courses approved by the schools

are acceptable in the unit requirement. Other courses are counted in calculating the student's study load, but cannot be counted toward the unit requirement for the master's degree. The total program must include the following:

1. At least 21 units of the program must be Stanislaus residence credit, 6 units of which must have been taken at Stanislaus prior to enrolling for the thesis or project or for a seminar alternative to the thesis.

- 2. Of the 30 units for the degree, not more than 9 units may consist of any combination of approved student teaching, extension courses, or transfer of credit. Student teaching credit is not ordinarily used on master's degree programs. In unusual circumstances, if student teaching is demonstrably appropriate to a program, up to 3 units of such work may be approved by the school committee. Credit by examination may be used to fulfill prerequisites, but may not apply toward the 30 units. Extension credit is not regularly used on master's degree programs; special cases, however, may be ruled upon by the appropriate school dean. Transfer extension and correspondence credit may be used toward a master's degree only if the institution offering the work would use it on a comparable master's degree program and if it is judged by appropriate school dean to be particularly relevant to the individual student's program.
- 3. With approval of departmental graduate adviser, post-baccalaureate credit allowed for work taken in the term or summer in which the baccalaureate degree is granted may be applied toward a master's degree, if it meets master's degree criteria in all respects.
- 4. At least half of the units must be in courses designed primarily for master's degrees (numbered in the 5000 series). Most programs require more than 15 units of 5000 series course work.
- 5. Appropriate course work from a field other than the major may be required at the discretion of the major department.

 Appropriate provision must be made for a thesis, a project, or, when permitted, a seminar alternative.

It is the student's responsibility to complete the specific courses listed on his program. Once a program has been approved by the student's graduate committee, it may be changed only on the written request of the student and his department adviser and with the approval of the department chairman.

FOREIGN LANGUAGE REQUIREMENT

Foreign language is not a general college requirement for admission to or completion of the master's degree program at the College. However, for advancement to candidacy, demonstration of competence, usually equivalent to that achieved through two years of collegiate study of one foreign language, is required in specified majors in which upper division and graduate courses demand such competence.

Ordinarily, the requirement calls for demonstration of the ability to read materials of the major in one appropriate foreign language.

GRADE REQUIREMENTS

- 1. All graduate students will be held to the scholarship standards listed under Academic Standards.
- 2. No course with a grade below C may apply on a master's degree program.
- 3. To be eligible for advancement to candidacy, a student must have earned a B average on all upper division and graduate course work completed after the date of embarking on the first course to be included in the master's degree program.

To be eligible for the granting of the degree, a student must have maintained a B average on his complete program. Any grade earned in a course on the program continues to figure in the grade point average, even if that course is for any reason later dropped from the program. To be eligible to receive the master's degree with distinction, a student must be nominated by his department and must have earned at least a 3.9 grade point average on the program for the master's degree or on all upper division and graduate work subsequent to the bachelor's degree.

EXAMINATIONS

Besides regular course examinations, some master's degree programs at the College require qualifying examinations for classified standing and advancement to candidacy and in some instances final oral or written comprehensive examinations at the conclusion of the program.

Graduate Programs

QUALIFYING EXAMINATIONS

Among the qualifying examinations used by some departments are the Aptitude Test and the Advanced Test of the Graduate Record Examinations, a nationally standardized group of examinations prepared and scored by the Educational Testing Service. Graduate Record Examinations are given four times a year in various parts of the world; students taking the examination at any of the testing centers may request that their scores be sent to the College Test Office. The College Test Office administers the test on the College campus. For information about dates, fees, and application procedures, consult the Test Office.

FINAL EXAMINATIONS

In addition to the qualifying examinations, all departments reserve the right to require written or oral comprehensive examinations when circumstances demand. A few departments require final comprehensive examinations of all candidates, and most departments requiring a thesis also require an oral defense of the thesis. Graduate students are urged to consult their graduate adviser about examination requirements.

EXTENSION OF TIME

A period of seven years is allowed for the completion of all requirements for the master's degree. A student whose program has been interrupted by military service should consult the dean of the school about provisions for military extensions. Otherwise, time may be extended only by the substitution of recent courses for outdated ones or by the passing of comprehensive examinations in the relevant courses or subject field.

THESIS, PROJECT, AND THESIS ALTERNATIVE

The College has adopted the following definitions of the terms "thesis" and "project":

- 1. A thesis is the systematic study of a significant problem. The problem, its major assumptions, its significance, the methods and sources for gathering data, the analysis of data, and the conclusions and recommendations are clearly stated.
- 2. A project may take either of the two following forms: The systematic development of a plan for, or the critical evaluation of, a significant undertaking, or

A creative work such as a novel, a musical composition, or a group of paintings.

In either type of project criteria employed in developing the plan, or in making the evaluation of the task, the details of the plan or evaluation, the methods used, and the supporting data are clearly stated.

3. A thesis alternative is a specifically designed or selected seminar designated by a department as acceptable in lieu of the thesis.

No academic distinction is made between a thesis and a project. Either one is equally acceptable as a means of fulfilling the requirements for the master's degree. Specific departmental instructions or requirements should, however, be ascertained by the candidate before enrollment in courses numbered 5990.

Whether a student is preparing a thesis or a project, it should be noted that quality work accomplished is a major consideration in judging acceptability. The finished product must evidence originality, appropriate organization, clarity of purpose, critical analysis, and accuracy and completeness of documentation where needed.

Critical thinking and independent thinking should characterize every project. Mere description, cataloging, compilation, or other superficial procedures are not adequate.

The qualify of writing, format, and documentation must meet standards appropriate for publication in the scholarly journals of the field, or consistent with the dictates of an authorized stylebook.

- 1. Registration for thesis requires authorization by the department chairman. If, however, a student fails to enroll within one semester (excluding summer sessions) after his official acceptance by a thesis committee, the committee is dissolved, and a new committee must be appointed before registration can be processed. A student planning to register or reregister for thesis after a break in regular semester attendance must be readmitted to the College.
- 2. A student whose thesis is planned to extend over more than the term in which he first enrolls in 5990 may receive a Satisfactory Progress (SP) grade.
- 3. Before a thesis is officially accepted by the Vice President's office, it must meet the criteria on matters of format, documentation, and quality of writing. The semifinal draft, initialed by the thesis chairman as acceptable with technical corrections, should be submitted to the Vice President for Academic Affairs at least three weeks before the last day of scheduled final examinations.
- 4. Four copies (three to be retained by the College) signed by the thesis chairman and ready for binding, together with the school or departmental clearance form must be submitted to the Vice President's office no later than one week before the last day of scheduled final examinations.
- 5. A student may arrange to have his thesis published in microfilm form, with an abstract of the thesis published in the quarterly periodical Masters Abstracts. This form of publication is encouraged by the College. Further details of the microfilming and copyright procedure may be obtained from the College Librarian.

Graduate Programs

APPLICATION FOR GRADUATION WITH A MASTER'S DEGREE

A request that the master's degree be granted must be filed (including verification of payment of the graduation fee) at the Admissions and Records Office in the first two weeks of a term or first week of a summer session in which the work is to be completed. Dates for filing applications are listed in the Academic Calendar. Diplomas for those completing degree requirements during summer sessions and at midyear will be awarded at the following June commencement exercises.

Failure to complete requirements for the degree during the term of the application necessitates the filing of a new application for the term of actual completion.

ANNOUNCEMENT OF COURSES

COURSE NUMBERING SYSTEM
DEPARTMENTAL REQUIREMENTS
COURSE DESCRIPTIONS

COURSE NUMBERING SYSTEM

COURSE LEVEL IDENTIFICATION

1- 999	Subcollegiate
1000-2999	Lower division courses designed primarily for freshmen and sophomores
3000-4999	Upper division courses designed primarily for juniors and seniors, and certain selected courses for graduate students. These courses should be taken by freshmen and sophomores only under unusual circumstances approved by both the instructor and major adviser.
5000-5999	Graduate courses for degrees. These courses are open only to qualified graduate students.
6000-6999	Professional postbaccalaureate courses.
8000-8999	Courses not applicable to baccalaureate or advanced degrees. These courses are often unique in format, experimental in content, and provide opportunities to pursue intellectual, civic, and cultural interests. Includes non-credit courses.
	During Spring 1963 to Spring 1967, appearance of the letter "G" following a course title on a student's permanent academic record indicates graduate-level credit in courses recommended by the College as applicable to advanced degree programs.

SPECIAL COURSE NUMBERS

For uniformity, certain types of courses have been listed under a single number by all departments and divisions as follows:

4920, 5920, and 6920 Workshops
4940, 5940, and 6940 Field Work
2950, 4950, and 5950 Selected Topics
4960
2970, 4970, 5970, 6970 Offered only Winter Term
4980, 5980, and 6980 Individual Study
4990 and 5990

EXPLANATION OF COURSE NOTATIONS

The notations used in course descriptions listed under the various departments are as follows:

- The figure in parentheses following the course title indicates the number of semester units for the course. Courses offered for varying units are indicated as (2-4), (1-5), etc.
- A notation such as (Formerly 450), at the end of a course description indicates the course was previously numbered 450.
- 3. Winter Term courses are not described in this catalog but are described in a Winter Term bulletin.

Administration of Justice:

A Concentration Within the Social Sciences Major

Michael H. Moynihan, M.A., Director

The Administration of Justice Program leads to a Bachelor of Arts, Social Sciences. The concentration prepares students for careers in law enforcement, corrections, probation, and parole. The program includes scheduling for both in-service and preservice students.

REQUIREMENTS FOR THE DEGREE WITH A CONCENTRATION IN ADMINISTRATION OF JUSTICE

- 1. Complete the requirements for the Bachelor of Arts degree.
- Complete one course in research methods, SOCL 2030 (4 units), and the major, consisting of not less than 32 upper division units from the list below as approved by the major adviser:
 - 4 courses in Sociology (select from Section B)
 - 3 courses in Psychology
 - 3 courses in Political Science (Jurisprudence)
 - 1 interdisciplinary Social Science Seminar (Administration of Justice Section)
 - 11 courses of not less than 32 upper division units. A maximum of 8 units of Winter Term CR graded course work may apply toward the major.,
- No minor is required.

REQUIRED AND RECOMMENDED COURSES:

- SOCIOLOGY. Prerequisite: SOCL 1010, Introduction to Sociology, 3 units
 - A. Research Methods

SOCL 2030. Research Methods, 4 units

- B. Criminology: Criminal Justice (Select 4)
 - SOCL 3020. Criminal Justice Research, 3 units
 - SOCL 3250. Criminal Justice I, 3 units
 - SOCL 4120. Sociology of Crime & Delinquency, 3 units
 - SOCL 4130. Sociology of Correction, 4 units
 - SOCL 4140. Sociology of Law, 3 units
 - SOCL 4240. Social Deviance, 3 units
 - SOCL 4250. Criminal Justice II, 3 units

Administration of Justice

 PSYCHOLOGY. Prerequisite: PSYC 2010, Introduction to Psychology, 3 units

Select 3 from the courses below:

PSYC 3130. Human Development, 3 units
PSYC 3160. Introduction to Psychological Testing,
3 units
PSYC 3310. Introduction to Social Psychology, 3 units
PSYC 3320. Introduction to Personality, 3 units

PSYC 3320. Introduction to Personality, 3 units PSYC 3350. Introduction to the Study of Abnormal Behavior, 3 units

PSYC 3790. Introduction to Counseling Theory, 3 units

3. POLITICAL SCIENCE (JURISPRUDENCE).

Prerequisite: PSCI 1200

American Government

3 units

Select 3 from the courses below:

PSCI 3220. Constitutional Law, 4 units

PSCI 3260. Urban Justice, 3 units

PSCI 3300. Introduction to Public Administration, 3 units

PSCI 4200. Problems in Civil Liberties, 3 units

PSCI 4210. The Judicial Process, 3 units

PSCI 4310. Public Policy Analysis, 4 units

Anthropology

Joel S. Canby, Ph.D., Professor, Chairman Lewis K. Napton, Ph.D., Professor Thomas E. Durbin, Ph.D., Associate Professor Corinne P. Armstrong, M.A., Assistant Professor Carol P. Carson, M.A., Assistant Professor

The Department of Anthropology and Geography offers the Bachelor of Arts, Anthropology. The major is designed for students preparing for a career in teaching of the social and biological sciences, and for students preparing for graduate work in anthropology and the various geographical area and interdisciplinary specializations such as African Studies, Asian Studies, Latin American Studies, etc.

Anthropology may also be used as a field for the degree Bachelor of Arts, Social Sciences. (For further information, see Social Sciences.)

REQUIREMENTS FOR THE BACHELOR OF ARTS, ANTHROPOLOGY

Anthropology majors are to:

- 1. Complete requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- 3. Complete the major of not less than 30 upper division units as approved by the major adviser; of these no more than 8 units of CR graded course work may apply toward the major.
- 4. Completion of a minor is not required.

DEGREE MAJOR IN ANTHROPOLOGY

Prerequisites to the Major:

- ANTH 2060. Introduction to Cultural Anthropology, 3 units ANTH 2080. Introduction to Physical Anthropology, 3 units ANTH 2090. Introduction to Prehistoric Archeology, 3 units
- 2. General Education applicable courses which serve as a useful background for anthropology are listed below; students should include as many of these as practicable while completing General Education requirements. Reading ability in at least one foreign language is also recommended.

Recommended courses to support the major:

BIOL 2310. Human Genetics, 2 units
BIOL 3810. Evolution, 2 units
ECON 2500, 2510. Principles of Economics I & II,
8 units

Anthropology

ENGL 2050. Technical & Report Writing, 3 units
GEOG 2020. Intro. to Cultural Geography, 3 units
GEOG 2400, 2410. World Regional Geography I & II,
6 units
GEOG 2100. Principles of Geology, 3 units
HIST 1010, 1020. Western Civilization I & II, 6 units
MATH 1600. Statistics, 4 units
MATH 2000. Introduction to Computers, 3 units
PHIL 1100. Logic, 3 units
PSCI 2000. Intro. to Political Science, 3 units
PSYC 2010. Introduction to Psychology, 3 units
PSYC 2020. Intro. to Psychological Methods, 3 units
SOCL 1010. Introduction to Sociology, 3 units
ZOOL 1050. Introduction to Zoology, 4 units
ZOOL 2250. Anatomy Laboratory, 2 units
ZOOL 4600. Animal Behavior-Ethology, 3 units

The Major

A minimum of 30 upper division units distributed as follows:	Units
ANTH 3650. History of Anthropology	
Ethnography	6
Advanced Prehistoric Anthropology	
Additional upper division units in anthropology	
Total	30

DEGREE MINOR IN ANTHROPOLOGY

The minor consists of 21 units, including at least 12 units of upper division courses in anthropology, normally to be distributed as listed below. In addition, minors wishing to specialize in one area of anthropology may do so with the approval of their minor adviser. No more than 8 units of CR graded course work may apply toward the minor.

Prerequisites to the major in anthropology							
ANTH 3650. History of Anthropology	•	•	٠	•	•	•	3
Ethnography or Ethnology		•	•		•		3
Advanced Prehistoric Anthropology							3
Advanced Physical Anthropology					•		_3

TEACHING CREDENTIALS

Anthropology majors interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs:

LIBERAL STUDIES CONCENTRATION IN ANTHROPOLOGY

1.	ETHNOLO	GY (recommended for Teaching Candidates)	Units
	(If Stu Int	60. Intro. to Cultural Anthropology i used as credit toward completion of Liberal idies Area A [Social Sciences], then GEOG 2020, iro. to Cultural Geography, must be taken in lition.)	3
	ANTH 36	550. History of Anthropology	3 14
	Tot	al	20
2.	ARCHEOL	OGY	
	*ANTH 36 Advance	90. Intro. to Prehistoric Archeology	3 3 14 20
3.	PHYSICA	L ANTHROPOLOGY .	
	ANTH 36 Advance	80. Intro. to Physical Anthropology	3 3 14 20
	100	ANTHROPOLOGY SUB-AREAS	20
		Lower Division	
ANT ANT ANT	H 2000. H 2060. H 2080. H 2090. H 2950.	Intro. to Physical Anthropology, 3 units Intro to Prehistoric Archeology, 3 units Selected Topics in Anthropology, 1-5 units	
		Upper Division	

GENERAL ANTHROPOLOGY (applicable to all areas below)

ANTH 3650. History of Anthropology

^{*}ANTH 2060, Introduction to Cultural Anthropology, is a prerequisite so students selecting either of the non-teaching options should take that course to fulfill their Area A requirements. See Liberal Studies in this catalog.

Anthropology

ETHNOGRAPHY

ANTH 3050.	Cultures of the Middle East, 3 units
ANTH 3060.	Australia and Oceania, 3 units
ANTH 3070.	Sub-Saharan Africa, 3 units
ANTH 3100.	East and South Asia, 3 units
ANTH 3110.	Peoples of the Soviet Union, 3 units
ANTH 3350.	The North American Indian, 3 units
ANTH 3360.	Indians of California and Western North
	America, 3 units
ANTH 3370.	Native Peoples of Mexico, 3 units
	Native Peoples of Central and South America,
	3 units

ETHNOLOGY

ANTH 4010.	Culture and Personality, 3 units
ANTH 4050.	Ethnographic Research Methods, 4 units
ANTH 4060.	Anthropological Linguistics, 4 units
ANTH 4100.	Studies in Social Anthropology, 2-4 units
ANTH 4200.	Applied Anthropology and Social Change, 4 units
ANTH 4210.	Cultural Dynamics, 3 units
ANTH 4220.	Folk Literature and Arts in Anthropological
,	Perspective, 4 units

ADVANCED PREHISTORIC ARCHEOLOGY

ANTH	3520.	Method and Theory in Archeology, 3 units
ANTH	3560.	Old World Archeology, 3 units
ANTH	3570.	North American Archeology, 3 units
ANTH	3580.	Origins of Old World Civilization, 3 units
ANTH	3590.	Mesoamerican and South American Archeology,
		3 units
ANTH	4600.	Archeological Field Methods, 4 units
ANTH	4610.	Seminar in Advanced Archeology, 3 units
ANTH	4620.	Science in Archeology, 3 units
ANTH	4630.	Archeological Expedition Proseminar, 1-3 units
ANTH	4940.	Archeological Expedition, 4-8 units
VANCED	PHYSICA	AL ANTHROPOLOGY

ADV

ANTH 3750.	Human Evolution, 3 units
ANTH 3760.	Primate Evolution and Anatomy, 3 units
ANTH 3780.	Primate Social Behavior, 3 units
ANTH 4750.	Advanced Human Evolution, 4 units
ANTH 4760.	Advanced Primate Evolution and Anatomy, 4 units
ANTH 4790	Advanced Primate Social Rehavior A units

SPECIAL STUDIES

ANTH 495	0. Selecte	d Topics i	n Anthropol	ogy, 1-5	units
ANTH 496	0. Senior	Seminar, 1	-4 units		
ANTH 498	30. Individ	ual Study,	1-4 units		
ANTH 598	30. Individ	ual Study,	1-4 units		

COURSE DESCRIPTIONS

Lower Division

ANTH 2000. Cultural Profiles: An Introduction to Peoples of the World (3)

Introduction to representative cultures throughout the world. A descriptive course designed primarily for non-majors interested in other peoples and their cultures. Prerequisite: None.

ANTH 2060. Introduction to Cultural Anthropology (3)

Meaning of culture, its diversity and degrees of elaboration among different peoples, organization, and functioning of cultures. (Formerly 201)

ANTH 2080. Introduction to Physical Anthropology (3)

Survey of human biology and physical anthropology; vertebrate evolution, primate evolution and behavior, human evolution and race.

ANTH 2090. Introduction to Prehistoric Archeology (3)

Introduction to prehistory and culture growth; the basis theories, methods and goals of archeology; cultural and historical reconstructions based on interpretation of data recovered from worldwide archeological contexts.

ANTH 2950. Selected Topics in Anthropology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of anthropology. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

ANTH 2970. Selected Topics offered during Winter Term (4)

Upper Division

ANTH 3050. Cultures of the Middle East (3)

Investigates the historical and cultural background of the various contemporary societies of North Africa and Southwest Asia. Attention is given to the varied effects of Western culture on the indigenous populations of the Middle East. Prerequisite: ANTH 2060 or equivalent.

ANTH 3060. Australia and Oceania (3)

Study of the settlement of Australia and the islands of the Pacific Ocean in prehistoric times and survey of the living

Anthropology

indigenous cultural groups of the area. Prerequisite: ANTH 2060 or equivalent.

ANTH 3070. Sub-Saharan Africa (3)

Introduction to African cultures, combining a brief survey of the peoples of the sub-continent and a special focus on representative societies. Prerequisite: ANTH 2060 or equivalent.

ANTH 3100. East and South Asia (3)

Investigates the cultural development of China, Japan, India, and the major off-shore islands. Also considers the lifeways of various primitive and advanced cultures of this region today. Prerequisite: ANTH 2060 or equivalent.

ANTH 3110. Peoples of the Soviet Union (3)

Examines the development of the European Russians into a nation, the rise of pastoral nomads of the steppes and their impact on Europe, and presents selected samples of cultures of indigenous peoples of the Siberian taiga and tundra. (Formerly 305) Prerequisite: ANTH 2060 or equivalent.

ANTH 3350. The North American Indian (3)

A general survey course designed to acquaint students with the prehistoric and historic cultures of the Indians of North America. The course consists of investigations of various theories of the origin of the American Indian and the application of the culture-area concept to an understanding of the various cultures. (Formerly 330) Prerequisite: ANTH 2060 or equivalent.

ANTH 3360. Indians of California and Western North America (3)

Special emphasis is given to the study of the Indians of California and adjacent areas with special reference to their historical and cultural backgrounds. (Formerly 331) Prerequisite: ANTH 2060 or equivalent.

ANTH 3370. Native Peoples of Mexico (3)

A general survey course designed to acquaint students with the prehistoric and historic cultures of the Indians of Mexico and adjacent areas of Mesoamerica. The course consists of investigations of various theories of the origin of Middle American Indians and the application of the culture-area concept to an understanding of the various cultures. Prerequisite: ANTH 2060 or equivalent.

ANTH 3380. Native Peoples of Central and South America (3)

A general survey course designed to acquaint students with the prehistoric and historic cultures of the Indians of Central 104 and South America. The course consists of investigations of various theories of the origin of Central and South American Indians and the application of the culture-area concept to an understanding of the various cultures. Prerequisite: ANTH 2060 or equivalent.

ANTH 3520. Method and Theory in Archeology (3)

Study of current methods in archeology, emphasis on applied and theoretical procedures in data sampling, collection, and evaluation; survey of method and theory in excavation of archeological sites; integration, analysis, and interpretation of archeological phenomena. (Formerly 325) Prerequisite: ANTH 2090 or equivalent, or consent of instructor.

ANTH 3560. Old World Archeology (3)

Survey of major developments in Old World prehistory from the dawn of man to the beginnings of the Classical cultures. Emphasis on the archeology of early men in Africa, the Paleolithic cultures of Europe, the Neolithic of the Near East viewed against the changing ecology of the Old World. (Formerly 326) Prerequisite: ANTH 2090 or equivalent, or consent of instructor.

ANTH 3570. North American Archeology (3)

Survey of the prehistory of the American Indian from the arrival of man in the New World to the Historic Period. Study of the archeological sites, cultures, and culture areas in the New World north of Mexico. Emphasis on the relation of man and environment in prehistoric North America. Areas considered include the Great Basin and the Arctic. (Formerly 327) Prerequisite: ANTH 2090 or equivalent, or consent of instructor.

ANTH 3580. Origins of Old World Civilizations (3)

An archeological survey course designed to acquaint the student with the evolution of complex culture or civilization in the Old World. Prerequisite: ANTH 2060 or 2090 or equivalent, or consent of instructor.

ANTH 3590. Mesoamerican and South American Archeology (3)

A general survey course designed to acquaint the student with the development of prehistoric cultures in the New World Mesoamerican and Andean areas. (Formerly 329) Prerequisite: ANTH 2090 or equivalent, or consent of instructor.

ANTH 3650. History of Anthropology (3)

Study of the history of the development of anthropological methods and theories. A required course for all majors, minors, and social science majors with an emphasis in anthropology. Prerequisite: ANTH 2060; ANTH 2080 and 2090 desirable.

Anthropology

ANTH 3750. Human Evolution (3)

Survey of the evolutionary processes in the development of man; origin and phylogeny of hominids; study of fossil man and the extinct primates; fossil evidence for human evolution. (Formerly 345) Prerequisite: ANTH 2080 or equivalent. Recommended: ZOOL 1050.

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ANTH 3760. Primate Evolution and Anatomy (3)

Evolutionary history of the primates with special emphasis on their anatomy and its importance to the study of primate behavior and evolution. (Formerly 346) Prerequisite: ANTH 2080 or equivalent. Recommended: ZOOL 1050.

ANTH 3780. Primate Social Behavior (3)

Survey of living non-human primate groups and their classification; geographical distribution, feeding habits, reproduction, and social behavior of these primates; the implications of non-human primate behavior for the understanding of human behavior. Prerequisite: ANTH 2080 or equivalent. Recommended: ZOOL 1050.

ANTH 3800. Introduction to Linguistics (4)

An introduction to the scientific study of language. Topics covered include dialect study, language acquisition, comparative linguistics, and modern theories of language. (Same as ENGL 3800)

ANTH 4000. Current Trends in Anthropology (2)

A symposium on anthropology featuring speakers on their special areas of research, including current anthropological theories. Prerequisite: Consent of instructor.

ANTH 4010. Culture and Personality (3)

Individual and modal personalities in relation to cultural background. Socialization in non-literate and other non-European societies. National character studies, basic personality structure, acculturation, and cross-cultural studies of abnormality. (Formerly 332) Prerequisite: One course in Ethnography or Ethnology.

ANTH 4050. Ethnographic Research Methods (4)

An introduction to techniques employed by anthropologists in performing primary and secondary research. Both basic statistical and non-statistical methods of handling data are presented. The course is not a field study course. Prerequisites: One course in Ethnography or Ethnology and consent of instructor.

ANTH 4060. Anthropological Linguistics (4)

A survey of major topics in the fields of linguistics and language and culture. Both descriptive and historical approaches to language study are considered. Prerequisite: One course in Ethnography or Ethnology.

ANTH 4100. Studies in Social Anthropology (2-4)

Studies in various aspects of Social Anthropology. Course content may vary from term to term. Typical courses include: Religion in Anthropological Perspective; Kinship Structures and Family Organizations; Economic Anthropology; Traditional Political Systems in Contemporary Societies. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ANTH 4200. Applied Anthropology and Social Change (4)

Study of changes resulting from contact between small-scale societies. Consideration will be given to processes of social change and organized attempts to introduce change. Prerequisite: ANTH 2060 or equivalent, or consent of instructor.

ANTH 4210. Cultural Dynamics (3)

Cultural stability and dynamics; with reference to geographical base, innovation, invention, and technology. Prerequisite: One course of Ethnography or Ethnology.

ANTH 4220. Folk Literature and Arts in Anthropological Perspective (4)

Survey of folk literature and traditional arts of small scale and peasant cultures from an anthropological perspective. Prerequisite: ANTH 2060 or equivalent, or consent of instructor.

ANTH 4600. Archeological Field Methods (4)

Techniques of site survey, sampling, and excavation with special emphasis on application of systematic field procedures, problem design, excavation, and recording of archeological evidence under controlled field conditions in the Central Valley. (Formerly 432) Prerequisite: ANTH 2090 or equivalent, or consent of instructor. (Course may be repeated for a maximum of 8 units.)

ANTH 4610. Seminar in Advanced Archeology (3)

Advanced studies in archeology, including planning and direction of archeological excavations and research projects,

Anthropology

procedures in site and survey reporting, simulation in funding and logistics in archeological field work, advanced synthesization and analysis of archeological data. Recommended for advanced students in archeology. Prerequisite: ANTH 3520 or consent of instructor.

ANTH 4620. Science in Archeology (3)

Survey of applications in archeology of techniques and theories derived from the natural and physical sciences. Study of dating and analytical techniques, laboratory investigations of faunal, floral, and inorganic materials derived from archeological sites. Prerequisite: ANTH 3520 or consent of instructor.

ANTH 4630. Archeological Expedition Proseminar (1-3)

Preparation for the Winter Term or Spring-Summer Session archeological expedition projects. The proseminar meets once each week during fall or spring semester, and is prerequisite for participation in the Winter Term archeological expedition. Subject matter includes lectures and assigned readings designed to acquaint the student with the culture, ecology, and relevant topics pertaining to the area to be investigated during the Winter Term or Summer Sessions. Prerequisite: Consent of instructor.

ANTH 4750. Advanced Human Evolution (4)

Study of human anatomy and its application to the understanding of human evolution; detailed studies of the fossil evidence for human evolution. Prerequisite: ANTH 3750 may be taken concurrently. Recommended: ZOOL 1050.

ANTH 4760. Advanced Primate Evolution and Anatomy (4)

Study of primate anatomy and its application to an understanding of primate evolution; detailed studies of the fossil evidence for primate evolution. Prerequisite: ANTH 3760 may be taken concurrently. Recommended: ZOOL 1050.

ANTH 4780. Advanced Primate Behavior (4)

Advanced studies in primate behavior. Includes actual research at local zoos on primates in such areas as aggression, dominance, mother-infant behavior, reproduction, communication, etc. Prerequisite: ANTH 3780, or other course in animal behavior.

ANTH 4940. Archeological Expedition (4-8)

Practical experience in archeological procedures under actual field conditions. The course may include study of known archeological sites, survey of archeologically unexplored areas, or

excavation of specific sites. Instruction includes research design and methods of implementation, reconnaissance, mapping, recording, testing, and excavation of archeological data. Related studies include field photography, instrument survey, faumal identification, microanalysis, and expedition logistics. Individual initiative is encouraged. (Formerly 433) Prerequisites: Consent of instructor and ANTH 2090 or ANTH 3520.

ANTH 4950. Selected Topics in Anthropology (Topics to be specified in Class Schedule) (1-5)

Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

ANTH 4960. Senior Seminar (1-4)

Seminar for seniors in anthropology. Review and discussion of selected topics in anthropology. Each student is expected to report on an individual project. (Formerly 491) Prerequisite: Consent of instructor.

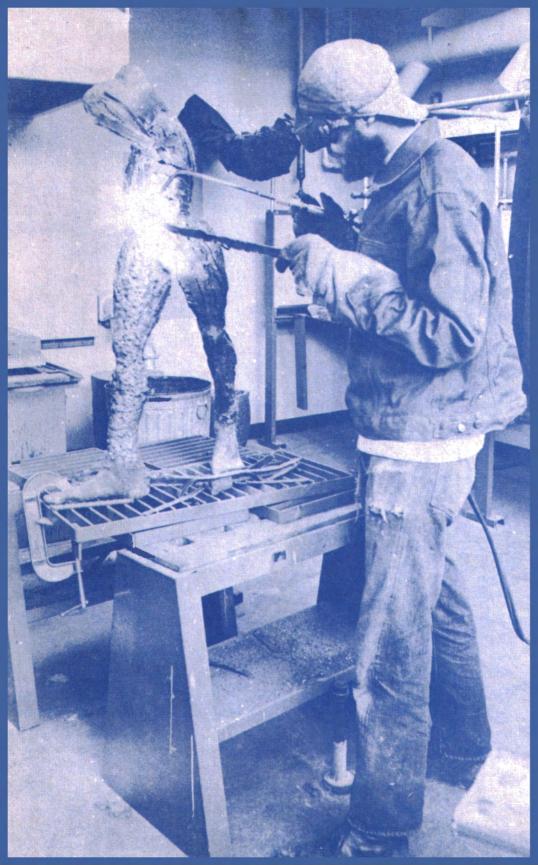
ANTH 4970. Selected Topics offered during Winter Term (4)

ANTH 4980. Individual Study (1-4)

For students' capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

ANTH 5980. Individual Study (1-4)

For students capable of independent study in one of the fields of anthropology. May be repeated for a total of 6 units; topics and supervising instructor may vary. Prerequisite: Available only for postbaccalaureate credit.



Art

Martin L. Camarata, M.A., Professor, Chairman Ralf Parton, M.A., Professor James Piskoti, M.F.A., Associate Professor Charles G. Simonds, M.A., Assistant Professor Richard R. Taylor, M.A., Assistant Professor

The Department of Art offers the degree, Bachelor of Arts, Art. The program is designed to provide the student with a rich, well balanced studio and art history program. The art courses and their structural sequence provide the student with mastery of significant skills, exploration of media, imagination, and the individual development of artistic performance. Excellent studio facilities play a major role in stimulating a positive approach to creativity.

The Department of Art also offers a one-year postbaccalaureate program leading to a Certificate in Printmaking. This program, Workshop in Printmaking, is available to qualified graduate students.

The art curriculum prepares students for additional academic preparation such as graduate school, and teachers credential programs.

The Foundation Program along with selected upper division courses is suited for general students interested in Liberal Arts and enriching their cultural and intellectual awareness of the creative process.

REQUIREMENTS FOR BACHELOR OF ARTS, ART

Art majors are to:

- 1. Complete the requirements for the Bachelor of Arts degree.
- Complete the Foundation Program in Art.
- Complete the major of not less than 30 upper division units.
- Completion of a minor is not required.

GENERAL REQUIREMENTS FOR ART MAJOR

- Students entering the college at the upper division level will be evaluated, through portfolio, prior to placement in courses.
- 2. All art majors are required, during their senior year, to submit a representative portfolio of their art work to the faculty which will judge the work, on a qualitative basis, for evidence of personal, conceptual, and aesthetic concerns. Participation in an exhibition of works chosen from the portfolio is a requirement for graduation as a major in art. The Department of Art reserves the right to retain any student art work and/or slides of work for its permanent collection.

DEGREE MAJOR IN ART

Prerequ	isites	to the	Major	- F	ound	lati	.on	Pr	ogı	am							
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ART	1010.	Drawi	ng I .													_	3
ART	1020.		ng II														3
ART	1100.	Desig	nI.														3
	1200.	Desig	n II.														3
	2100.	Art H	istory	Sur	vey	I		•		•				•	•	•	3
ART	2110.	Art H	istory	Sur	vey	II		•	٠	٠	•	•	•	•	•	٠_	3
		Total			٠.	•		•		•		•	•		•	•	18
The Major	•																
ART	3010.	Drawi	ng III														3
	3200.	Prob1	ems in	Pair	ntin	ıg I											3
ART	3300.	Sculp	ture I	, Ide	eas	and	th	e i	Fig	ur	е.						3
ART	3410.	Conte	mporary	/ Ar	t.				•								3
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Twer	ity-seve	en uni	ts as 1	iste	ed b	elo	w:										
Lower Div	ision	(req	uired)														
ART	1010.	Drawi	ng I, 3	uni	its												
	1020.	Drawi	ng II,	3 ur	nits												
	1100.	Design	n I, 3	uni	ts												
ART	1200.	Design	1 II, 3	uni	its		-										
	2100. 2110.																
AKI	2110.	Art n.	istory	Surv	vey	11,	3	ωn	LLS								
Upper Div	ision																
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112

following areas:

Printmaking:

ART 3100. Printmaking I, 3 units

ART 3110. Printmaking II, 3 units

ART 3120. Lithography, 3 units

Painting:

ART 3200. Problems in Painting I, 3 units

ART 3210. Problems in Painting II, 3 units

ART 3220. Problems in Painting III, 3 units

Sculpture:

ART 3300. Sculpture I, 3 units

ART 3310. Sculpture II, 3 units

ART 3320. Sculpture III, 3 units

WORKSHOP IN PRINTMAKING PROGRAM -

Admission Requirements:

- 1. B.A. degree with a major in art.
- Minimum of two courses in printmaking at the undergraduate level.
- 3. Portfolio evaluation by faculty in the printmaking area.
- 4. Interest in the field and seriousness of endeavor.

Print courses for the program may be selected from department course offerings in consultation with the adviser.

Requirements for the Certificate:

- 1. Complete minimum of 14 units of studio electives in print-making. $\dot{}$
- Submit a portfolio of prints to a faculty committee who shall evaluate the work.
- Participate in a group print exhibition or a one-man exhibition of prints on campus or a place acceptable to both the student and faculty.

DEGREE MINOR IN MODERN ART HISTORY

Eighteen units, to include at least 8 units in upper division.

Lower Division

ART 2100. Art History Survey I, 3 units

ART 2110. Art History Survey II, 3 units

Electives in Art History as approved by the minor adviser.

Upper Division

ART 3400. Modern Art 1900-1945, 3 units

ART 3410. Contemporary Art, 3 units

ART 4420. Early Modern Art, 3 units

ART 4430. 20th Century American Art, 3 units

Electives in Art History as approved by the minor adviser.

TEACHING CREDENTIALS

Art majors interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.

LIBERAL STUDIES CONCENTRATION IN ART

Lowe	r Divi	sion																					Į	Jnits	;
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Uppe	r Div	ision	•																						
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COURSE DESCRIPTIONS

Lower Division

ART 1000. Introduction to Drawing (3)

Emphasis on introduction to drawing media and process as visual language for the general student.

ART 1010. Drawing I (3)

Descriptive drawing by developing eye and hand control. Variety of media and techniques. (Formerly 100) Prerequisite: Art major/minor or consent of instructor.

ART 1020. Drawing II (3)

Continued exploration of drawing. Emphasis on spatial concepts and expressive content using a variety of media and techniques. Prerequisite: ART 1010.

ART 1100. Design I (3)

Studio exploration of plastic elements as a basis for building a theoretical and practical vocabulary for two-dimensional design and composition in color. (Formerly 120) Prerequisite: Art major/minor or consent of instructor.

^{*}ART 1010 cannot apply toward the concentration if used to satisfy Liberal Studies Area C requirements.

ART 1200, Design II (3)

A course designed to encourage students to see, design, and build sculpture by combining basis architectural and geometric concepts with an individual imagination. Assignments will be given in a variety of materials with criticism on each project. (Formerly 130) Prerequisite: Art major or consent of instructor.

ART 2100. Art History Survey I (3)

Survey of the major visual arts from prehistoric times to High Renaissance.

ART 2110. Art History Survey II (3)

Survey of the major visual arts from the baroque era to major movements of the 20th century.

ART 2950. Selected Topics in Art (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in art. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.

ART 2970. Selected Topics offered during Winter Term (4)

Upper Division

ART 3010. Drawing III (3)

Emphasis on figure as compositional element. May be repeated for a total of 6 units. Prerequisites: ART 1010, 1020, 1100, 1200; or consent of instructor.

ART 3020. Drawing IV (3)

Development of expression, techniques, and media. Emphasis on independent student production. May be repeated for a total of 6 units. Prerequisites: ART 1010, 1020, 3010; or consent of instructor.

ART 3100. Printmaking I (3)

Fundamental theories and practices involved in the processes of relief printing and silk-screen printing. Exploration of woodcut, wood-engraving, and color relief printing; exploration of silk-screen processes using paper stencil, glue block-out, stencil film, and photo-film methods. May be repeated for a total of 6 units. (Formerly 210) Prerequisites: ART 1010, 1020, 1100, 1200; or consent of instructor.

ART 3110. Printmaking II (3)

Techniques of intaglio printmaking. Exploration of hard and soft grounds, engraving, aquatint, collograph, color intaglio methods, and photo mechanical processes. Emphasis on techniques and their relation to the graphic image. (Formerly 311, Intaglio Printmaking) May be repeated for a total of 6 units. Prerequisites: ART 1010, 1020, 1100, 1200; or consent of instructor.

ART 3120. Lithography (3)

Development of graphic images based on lithographic techniques and processes. Emphasis on the unique qualities of the lithographic print. May be repeated for advanced work. Prerequisites: ART 1010, 1020, 1100, 1200; or consent of instructor.

ART 3200. Problems in Painting I (3)

Form and content in painting. Painting structure and composition. Basic media, techniques, and concepts. May be repeated for a total of 6 units. (Formerly 220) Prerequisites: ART 1010, 1020, 1100, 1200; or consent of instructor.

ART 3210. Problems in Painting II (3)

Assignments will be given emphasizing the relation of craft to material and content to format. Continued development of spatial concepts, form, and color. May be repeated for a total of 6 units. Prerequisites: ART 1010, 1020, 1200, 3200; or consent of instructor.

ART 3220. Problems in Painting III (3)

Assignments with the goal of technical development of media. Emphasis on individual solutions of painting problems and development of critical sense. May be repeated for a total of 6 units. (Formerly 323) Prerequisites: ART 3200, 3210; or consent of instructor.

ART 3270. Watercolor (3)

Painting problems using watercolor medium. Control of technique with an emphasis on individual development and expression. Prerequisites: ART 1010, 1020, 3200; or consent of instructor.

ART 3300. Sculpture I, Ideas and the Figure (3)

Assignments are geared to the imaginative use of the figure through clay, plaster, and wax. The purpose is to engage students in a fresh analysis of the figure as a spatial yet personal statement. May be repeated for a total of 6 units. (Formerly 230) Prerequisite: ART 1200, or consent of instructor.

ART 3310. Sculpture II, Object as Sculpture (3)

A series of assignments will be given in order to make the student consider the relationship of idea of structure. Welding, bronze, and aluminum casting will be the means. Critiques on assignments will be given. May be repeated for a total of 6 units. Prerequisites: ART 1200, 3300; or consent of instructor.

ART 3320. Sculpture III, Ideas and Sculpture (3)

Assimilating and expanding sculptural ideas toward developing an individual personality in sculpture. Plastic fabrication, vacuum-forming, and fiberglass techniques will be used as projects. Extended criticism will be given on all work. May be repeated for a total of 6 units. Prerequisites: ART 1200, 3300; or consent of instructor.

ART 3400. Modern Art 1900-1945 (3)

An analysis and interpretation of the major artistic movements from 1900-1945. Emphasis will be placed on the changing aesthetic and artistic expressions of this period. (Formerly 348)

ART 3410. Contemporary Art (3)

Analysis of development of style trends in the visual arts from 1945 to the present.

ART 4020. Advanced Drawing (3)

Advanced problems and techniques in drawing. Emphasis placed on a professional attitude within a seminar framework. May be repeated for credit. (Formerly 405) Prerequisites: ART 1010, 1020, 1100, 1200, 3010, 3020; or consent of instructor.

ART 4100. Advanced Printmaking (3)

Advanced projects in printmaking with emphasis on the development of personal imagery and the mastery of technique. Individual projects via consultation with instructor. May be repeated for credit. (Formerly 415) Prerequisites: 2 printmaking courses from ART 3100, 3210, 3220; or consent of instructor.

ART 4200. Advanced Painting (3)

Advanced problems and techniques in painting. Emphasis on personal concepts, individual development, and a professional attitude within a seminar framework. May be repeated for credit. Prerequisites: ART 3200, 3210; or consent of instructor.

Art

ART 4300. Advanced Sculpture (3)

Advanced assignments and critical analysis emphasizing independent production and a sound creative identity. Emphasis will be placed on a professional attitude within a seminar teamwork. May be repeated for credit. (Formerly 435) Prerequisite: Any 2 upper division sculpture courses, or consent of instructor.

ART 4420. Early Modern Art (3)

A study of the major trends and artists from Neo-Classicism through Impressionism. An investigation into the relationship of these artists and movements to the cultural and intellectual milieu.

ART 4430. 20th Century American Art (3)

A study of American art from Eakins to the present, concentrating on painting and sculpture; tracing the art of this century in relation to European currents and the native experience.

ART 4510. Gallery Management (1)

Preparation for gallery managementship. May be repeated for credit. Prerequisite: Consent of instructor.

ART 4950. Selected Topics in Art (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in art. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.

ART 4960. Senior Seminar (2)

Study of the nature and problems confronting the contemporary American artist. Prerequisite: Senior standing in the major.

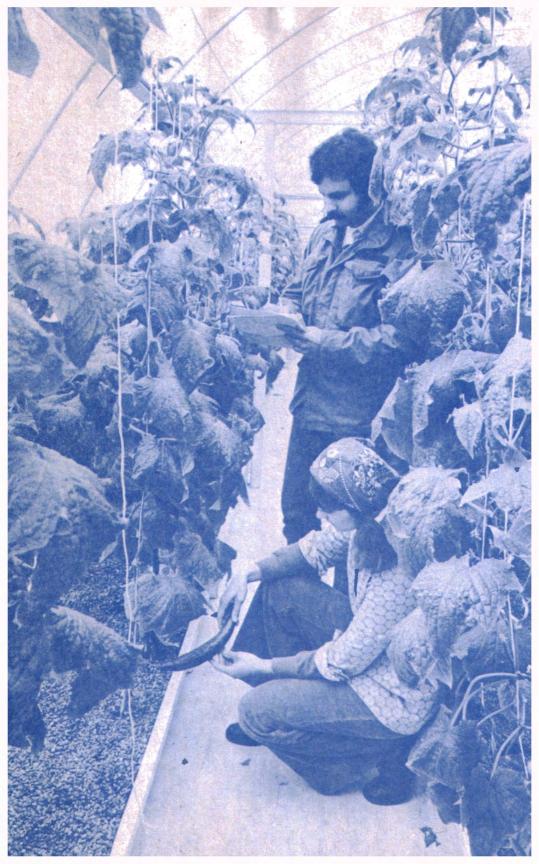
ART 4970. Selected Topics offered during Winter Term (4)

ART 4980. Individual Study (1-4)

For the student capable of independent specialized work in studio and/or history and criticism. Students would normally be senior art majors with one year of study in the department. A written outline of the proposed independent study must be submitted and approved by the instructor under whom the student wishes to work. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

ART 5980. Individual Study (1-4)

For postbaccalaureate students with a degree major in art capable of independent specialized work in studio and/or history and criticism. A written outline of the proposed independent study must be submitted and approved by the instructor under whom the student wishes to work. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.



Glenn A. Hackwell, Ph.D., Professor, Chairman
Steve J. Grillos, Ph.D., Professor
James C. Hanson, Ph.D., Professor
Jay P. Christofferson, Ph.D., Associate Professor
David M. Gotelli, Ph.D., Associate Professor
Perpetuo S. Mayol, Ph.D., Associate Professor
Judith A. Brown, Ph.D., Assistant Professor
Wayne S. Pierce, Ph.D., Assistant Professor
Pamela Roe, Ph.D., Assistant Professor
Walter Tordoff III, Ph.D., Assistant Professor
Daniel F. Williams, Ph.D., Assistant Professor

The Department of Biological Sciences offers programs of study in the biological sciences for students seeking the Bachelor of Arts, Biological Sciences. Courses are offered to provide breadth and background in the natural sciences for the general student. Individual major programs are designed to prepare students for graduate work, careers in the biological sciences, and teaching. The student majoring in the biological sciences who wishes to prepare for a preprofessional program in such areas as dentistry, medicine, lab technology, nursing, and similar professions should consult with the major adviser early in his undergraduate program.

Students interested in marine biology and oceanography may elect course work at the Moss Landing Marine Laboratories for partial fulfillment of their in-resident major and degree requirements. Refer to the Marine Sciences section of the catalog for description of Moss Landing course offerings.

REQUIREMENTS FOR THE BACHELOR OF ARTS, BIOLOGICAL SCIENCES

Biological sciences majors are to:

- Complete the requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- 3. Complete the major of not less than 24 upper division units, including course requirements as specified for the major. No more than 8 units of CR graded course work may apply toward the major.
- 4. Completion of a minor is not required.

DEGREE MAJOR IN BIOLOGICAL SCIENCES

Prerequisites to the Major:

Required courses in the major field:

BOTY 1050. Introduction to Botany, 4 units ZOOL 1050. Introduction to Zoology, 4 units

Required courses in supporting fields:

CHEM 1100, 1110. Principles of Chemistry I, II, 10 units CHEM 3010, 3030. Organic Chemistry, 3 units, 1 unit Mathematics (Statistics or Calculus), 3-4 units Elective courses in chemistry, mathematics, or physics, 8-9 units

The Major	Units
BIOL 3310. Cellular & Molecular Biology BIOL 3320. General Genetics	
major adviser)	. 4
Course in Ecology (approved by major adviser) To be elected from the following: BIOL 3630, BIOL 3650, BIOL 4630	. 4
Course in Physiology (approved by major adviser) To be elected from the following: BIOL 4220, BOTY 4200, ENTO 4220, ZOOL 4230 *Electives in the Biological Sciences (approved by	. 4
major adviser)	. 14
Total	. 32

ELECTIVE CONCENTRATIONS IN THE MAJOR

Students wishing to have a specific concentration may do so by completing all the requirements for a major in biological sciences to include specific concentration requirements listed below. A minimum of 16 upper division units must be completed within the area of concentration. Additional units within the concentration will be selected with the aid of the adviser.

BOTANY CONCENTRATION:

BOTY 3100. Survey of Lower Plants, 4 units BOTY 3120. Morphology of Vascular Plants, 4 units BOTY 4200. Plant Physiology, 4 units or BIOL 4220. General & Cellular Physiology, 4 units

^{*} A maximum of 8 units may be satisfied by courses at lower division level as approved by major adviser.

ENTOMOLOGY CONCENTRATION:

ENTO 3000. Principles of Entomology, 4 units

ENTO 3330. Medical Entomology, 3 units

ENTO 3740. Insect Classification, 4 units

ENTO 4220. Insect Physiology & Internal Anatomy, 4 units

ZOOLOGY CONCENTRATION: At least one course from each of the following groups:

1. ZOOL 3610. General Vertebrate Zoology, 4 units

ZOOL 4620. Herpetology, 4 units

ZOOL 4630. Ornithology, 4 units

ZOOL 4640. Mammalogy, 4 units

2. ZOOL 4420. Invertebrate Zoology I, 4 units

ZOOL 4430. Invertebrate Zoology II, 4 units

ENTO 3000. Principles of Entomology, 4 units

ENTO 3740. Insect Classification, 4 units

ZOOL 4230. Animal Physiology, 4 units
 BIOL 4220. General & Cellular Physiology, 4 units

ENVIRONMENTAL SCIENCES CONCENTRATION:

A Biological Sciences major may complete additional requirements in the sciences and mathematics to qualify for an Environmental Sciences Concentration in addition to the Bachelor of Arts degree in Biological Sciences. This program requires study in biological sciences, chemistry, mathematics and physical sciences, along with an environmental seminar and investigation of an environmentally related problem. Further details are found in the Environmental Sciences section of this catalog.

PREPROFESSIONAL PREPARATION

Biological Science majors interested in dentistry, medicine, optometry, and veterinary medicine should complete the following courses: CHEM 3010, 3030; CHEM 3020, 3040; PHYS 1100; PHYS 1110; ZOOL 3130 and ZOOL 3150 or equivalent. Additional course work for specific professions will vary with the profession; i.e., for premedical students, BIOL 4220, CHEM 4010, CHEM 4020, CHEM 4400, CHEM 4410, and mathematics through calculus are recommended.

Students interested in biological laboratory occupations following the baccalaureate degree in biological sciences should complete BIOL 4310, CHEM 2010, MATH 1600, MATH 2000, MBIO 2010, and MBIO 2030 as part of their major. (Additional information may be found in the Health Sciences section of this catalog).

DEGREE MINOR IN BIOLOGICAL SCIENCES

Twenty units, to include at least 12 units in upper division.

Lower Division

BOTY 1050. Introduction to Botany, 4 units ZOOL 1050. Introduction to Zoology, 4 units (equivalent courses may be substituted by minor adviser)

Upper Division

Courses as approved by minor adviser, 12 units

LIBERAL STUDIES CONCENTRATION IN BIOLOGY

Lower Division Uni	its
*BOTY 1050. Introduction to Botany, 4 units or *ZOOL 1050. Introduction to Zoology	4 2
Upper Division	
 One course dealing with the diversity of biological organisms	1
 Biological Science Electives	L
Total	- L

PREPARATION FOR GRADUATE WORK OR PROFESSIONAL DEGREES

It is recommended that the student who intends to seek an advanced degree in graduate study select a minor in the physical sciences or mathematics and complete at least a college-level one-year sequence or equivalent in French, German, or computer programming (FORTRAN).

Students planning to seek advanced and professional degrees are advised to complete both a year sequence in college physics and a year sequence in organic chemistry. If interested in biochemistry, ecology, or molecular biology, the student should also elect a year sequence in calculus and a course in statistics.

^{*} Either BOTY 1050 or ZOOL 1050 will satisfy the BIOL 1010 requirement in the Liberal Studies program.

COURSE DESCRIPTIONS

BIOLOGY

Lower Division

BIOL 1010. Principles of Biology (4)

Introduction to basic biological phenomena common to all living organisms: Cellular and molecular levels of organization, genetics, and the mechanisms of heredity in organic evolution, environmental associations, structure as it relates to function, and reproduction from the molecular to gross structural levels. (Formerly 101, 103) (Lecture, 3 hours; laboratory, 3 hours). Prerequisite: None.

BIOL 2310. Human Genetics (2)

Basic principles of heredity and evolution particularly as they apply to man. Not applicable for credit in biological science major. (Lecture, 2 hours) Prerequisite: None.

BIOL 2650. Environmental Biology (2)

Basic ecological concepts as they apply to present day resource management and human environmental problems, including wildlife, forest, soil, water, air, and mineral resources. Ecological aspects of air and water pollution, human population growth, pesticide use, and energy consumption. (Lecture, 2 hours; field trips) (Formerly 263) Prerequisite: None.

BIOL 2950. Selected Topics in Biology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of biology. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

BIOL 2970. Selected Topics offered during Winter Term (4)

Upper Division

BIOL 3310. Cellular and Molecular Biology (3)

Basic concepts of cellular phenomena dealt with at the molecular level of organization. (Lecture, 3 hours) (Formerly 351) Prerequisites: BOTY 1050, ZOOL 1050, and CHEM 1100, 1110, or equivalent.

BIOL 3320. General Genetics (3)

Mechanisms of inheritance illustrating the role of genetics in modern biology. (Lecture, 3 hours) Prerequisite: BIOL 3310 or equivalent.

BIOL 3330. Introduction to Microscopy (3)

Theoretical basis and practical uses of various types of light and electron microscopes; what kinds of microscopes yield what kinds of information; how information is recorded. (Lecture, 3 hours) (Formerly 432) Prerequisite: One year college-level biology.

BIOL 3630. Ecology (4)

Basic interrelationships of plants and animals within their physical environments. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisites: BOTY 1050, ZOOL 1050, and CHEM 1100, 1110, or equivalent, and statistics or calculus. (Satisfies ecology elective for the major)

BIOL 3650. Aquatic Biology (4)

The biota of fresh water with emphasis on the ecology, identification, physiology, and behavior of aquatic organisms. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisites: BOTY 1050, ZOOL 1050, and CHEM 1100, 1110, or equivalent. (Satisfies ecology elective for the major)

BIOL 3810. Evolution (2)

Basic concepts of evolutionary theory including evidence and mechanisms that underlie and support the evolution of living things. (Lecture, 2 hours) Prerequisites: BOTY 1050, ZOOL 1050, or equivalent; BIOL 3320 recommended.

BIOL 4220. General and Cellular Physiology (4)

Physico-chemical properties of protoplasm, permeability, metabolism, and nuclear-cytoplasm interaction. (Lecture, 2 hours; laboratory, 6 hours) (Formerly 322) Prerequisites: Two years of college-level biology, and CHEM 3010, 3030, or equivalent. (Satisfies physiology elective for the major)

BIOL 4310. Histological and Cytological Techniques (3)

Principles and practice of preparing tissues for microscopy study. (Lecture, 1 hour; laboratory, 6 hours) (Formerly 451) Prerequisite: Two years of college-level biology or equivalent.

BIOL 4330. Electron Microscopy Laboratory (2)

Practical use of the electron microscope and practice in the supporting techniques. (Laboratory, 6 hours) Prerequisite: BIOL 3330 and/or consent of instructor.

BIOL 4630. Marine Biology (4)

Study of marine communities with emphasis on local communities. Ecology and natural history of plants and animals, and their adaptations to marine environments are stressed. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisites: BOTY 1050, ZOOL 1050 or equivalent, and one semester invertebrate zoology or BOTY 4140, and consent of instructor. (Satisfies ecology elective for the major)

BIOL 4950. Selected Topics in Biological Sciences (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of biological sciences. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

BIOL 4970. Selected Topics offered during Winter Term (4)

BIOL 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

BIOL 5980. Individual Study (1-4)

For qualified students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

BOTANY

Lower Division

BOTY 1050. Introduction to Botany (4)

Introduction to the fundamental aspects of plant biology; taxonomy, anatomy, morphology, physiology, and ecology. (Lecture, 3 hours; laboratory, 3 hours) (Formerly 105 and 106) Prerequisites: Grade of A or B in high school biology, satisfactory score on biology qualifying examination, or BIOL 1010.

BOTY 2950. Selected Topics in Botany (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of botany. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

BOTY 2970. Selected Topics offered during Winter Term (4)

Upper Division

BOTY 3100. Survey of Lower Plants (4)

Natural history and taxonomy of the algae, fungi, lichens, mosses, and liverworts. (Lecture, 3 hours; laboratory, 3 hours; field trips) (Formerly 311) Prerequisite: BOTY 1050 or equivalent. (Satisfies diversity elective for the major)

BOTY 3120. Morphology of Vascular Plants (4)

Comparative study of structure, development, ecology, and evolutionary importance of club mosses, horsetails, ferns, and seed plants. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisite: BOTY 1050 or equivalent. (Satisfies diversity elective for the major)

BOTY 3500. Introductory Plant Pathology (4)

Nature, cause, and control of plant diseases with emphasis on economic agricultural crops. (Lecture, 3 hours; laboratory, 3 hours) Prerequisite: BOTY 1050 or equivalent.

BOTY 3700. Flowering Plants (4)

Structure, kinds, taxonomic relationships, and classification of local flowering plants with practice in their collection and identification. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: BOTY 1050 or equivalent. (Satisfies diversity elective for the major)

BOTY 4100. Anatomy of Seed Plants (4)

Microscopic study of structure and development of plant tissues with emphasis on tissues of seed plants. (Lecture, 3 hours; laboratory, 3 hours) Prerequisites: BOTY 3120 or consent of instructor.

BOTY 4140. Biology of the Algae (4)

Survey of the algae with emphasis on form, structure, heredity, development, and identification. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: BOTY 3100 or equivalent. Offered alternate years.

BOTY 4150. Biology of the Fungi (4)

Survey of the fungi with emphasis on form, structure, heredity, development, and identification. (Lecture, 3 hours; laboratory, 3 hours; field trips) (Formerly 315) Prerequisite: BOTY 3100 or equivalent. Offered alternate years.

BOTY 4200. Plant Physiology (4)

Selected topics pertaining to metabolism, nutrition, and growth of plants. (Lecture, 2 hours; laboratory, 6 hours) Prerequisites: BOTY 1050 or equivalent, and CHEM 3010, 3030, or equivalent. (Satisfies physiology elective for the major)

BOTY 4950. Selected Topics in Botany (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of botany. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

BOTY 4970. Selected Topics offered during Winter Term (4)

ENTOMOLOGY

Upper Division

ENTO 3000. Principles of Entomology (4)

Classification, control, life history, structure, ecology, and basic physiology of insects. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: ZOOL 1050 or equivalent. (Satisfies diversity elective for the major)

ENTO 3330. Medical Entomology (3)

Relation of insects, arachnids, and other arthropods to the causation of pathological conditions in man and other animals or to the transmission of organisms which are responsible for such pathological conditions. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: ZOOL 1050 or equivalent.

ENTO 3740. Insect Classification (4)

Survey of major groups of insects with classification to family level, taxonomic categories and procedures, nomenclature and liberature. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: ENTO 3000 or consent of instructor. (Satisfies diversity elective for the major)

ENTO 4220. Insect Physiology and Internal Anatomy (4)

Consideration of nutrition, digestion, excretion, circulation, respiration, detoxification processes, and the nervous and hormonal systems of insects. (Lecture, 3 hours; laboratory, 3 hours) Prerequisites: ENTO 3000 and CHEM 3010, 3030 or equivalent, or consent of instructor. (Satisfies physiology elective for the major)

ENTO 4950. Selected Topics in Entomology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of entomology. Topics vary each term, thus different topics may be taken for credit. Pre-requisite: Consent of instructor.

ENTO 4970. Selected Topics offered during Winter Term (4)

MICROBIOLOGY

Lower Division

MBIO 2010. Bacteriology (3)

Morphology, physiology, cultivation, and control of bacteria and other selected microorganisms; their role as agents of change in the natural process important to industry, agriculture, and health. (Lecture, 3 hours) Prerequisites: One year of college-level biology or equivalent and CHEM 1100 or equivalent. (Satisfies diversity elective for the major)

MBIO 2030. Bacteriology Laboratory (2)

Laboratory experiments and demonstrations to illustrate principles and techniques of bacteriology. (Laboratory, 6 hours)
Prerequisite: MBIO 2010 or concurrent enrollment.

MBIO 2970. Selected Topics offered during Winter Term (4)

Upper Division

MBIO 4950. Selected Topics in Microbiology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of microbiology (bacteriology). Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

MBIO 4970. Selected Topics offered during Winter Term (4)

ZOOLOGY

Lower Division

ZOOL 1050. Introduction to Zoology (4)

Introduction to basic zoological principles common to the animal kingdom. The course covers animal diversity; morphology and physiology of animal cells, tissues, and organ systems; animal reproduction and development; and principles of evolution

and speciation. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisites: Grade of A or B in high school biology, satisfactory score on biology qualifying examination, or BIOL 1010.

ZOOL 2230. Physiology (3)

Principles of functional anatomy and physiology of organ systems with special reference to human physiology. (Lecture, 3 hours) (Formerly 323) Prerequisite: ZOOL 1050 or equivalent. (Does not satisfy the physiology elective for the major)

ZOOL 2240. Physiology Laboratory (1)

Laboratory experiments, exercises, and demonstrations illustrating the principles of physiology with special reference to human physiology. (Laboratory, 3 hours) (Formerly included in 323) Prerequisite: ZOOL 2230 or concurrent enrollment.

ZOOL 2250. Human Anatomy (3)

Gross morphology and anatomy of the organ systems of the human body with emphasis on functional anatomy. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: None.

ZOOL 2950. Selected Topics in Zoology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of zoology. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

ZOOL 2970. Selected Topics offered during Winter Term (4)

Upper Division

ZOOL 3130. Vertebrate Embryology (5)

Comparative study of embryological stages of various selected vertebrate forms and developmental microanatomy of their organ systems. (Lecture, 3 hours; laboratory, 6 hours) Prerequisite: ZOOL 1050 or equivalent.

ZOOL 3150. Comparative Anatomy of Vertebrates (5)

Comparative study of microanatomy and gross morphology of organ systems in representative vertebrates. (Lecture, 3 hours; laboratory, 6 hours) (Formerly 315, 316) Prerequisite: ZOOL 1050 or equivalent.

ZOOL 3600. Introduction to Ethology (3)

A general survey of forms of animal behavior and methods of study. (Lecture, 3 hours) (Formerly ZOOL 460) Prerequisite: BOTY 1050, ZOOL 1050, or consent of instructor.

ZOOL 3610. General Vertebrate Zoology (4)

Natural history, behavior, ecology, environmental physiology, and zoogeography of the vertebrates with emphasis on the ecological roles of vertebrates in their natural communities. Laboratory and field studies of local forms. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: One year college-level zoology. (Satisfies diversity elective for the major)

ZOOL 4230. Animal Physiology (4)

A physiological approach to the evolution of vertebrate organ systems. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisites: Two years of college-level biology or equivalent, and CHEM 3010, 3030, or equivalent. (Satisfies physiology elective for the major)

ZOOL 4250. Endocrinology (2)

A comparison of animal endocrine systems at the cell, tissue, and organ level. (Lecture, 2 hours) Prerequisites: BIOL 3310 and CHEM 3010, 3030, or equivalent.

ZOOL 4420. Invertebrate Zoology I (4)

Structure, classification, distribution, and life histories of invertebrates. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisites: BOTY 1050, ZOOL 1050, or equivalent. (Satisfies diversity elective for the major)

ZOOL 4430. Invertebrate Zoology II (4)

Continuation of ZOOL 4420. Structure and classification distribution, and life histories of invertebrates. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisites: BOTY 1050, ZOOL 1050, or equivalent. ZOOL 4420 recommended. (Satisfies diversity elective for the major)

ZOOL 4440. General Parasitology (3)

Parasitism with emphasis on parasites of man. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: Two years of college-level biology or equivalent.

ZOOL 4620. Herpetology (4)

Anatomy, behavior, classification, distribution, ecology, evolution, and life histories of amphibians and reptiles. (Lecture, 2 hours; laboratory, 6 hours or one field trip per week) Prerequisite: ZOOL 3150 or ZOOL 3610 or equivalent. Offered alternate years.

ZOOL 4630. Ornithology (4)

Behavior, classification, economic importance, evolution, life histories, migration, and special modifications of birds. Identification in field and laboratory. (Lecture, 2 hours; laboratory, 6 hours or one field trip per week) Prerequisite: ZOOL 3150 or ZOOL 3610 or equivalent. Offered alternate years.

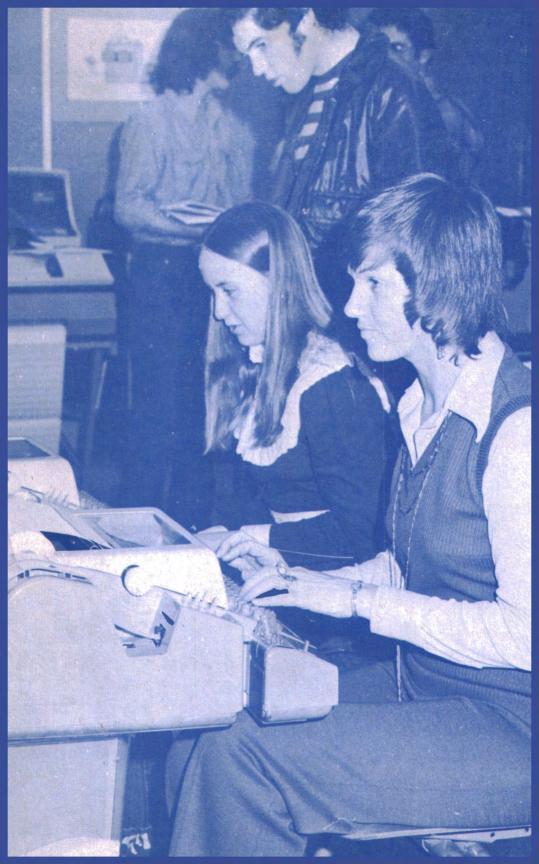
ZOOL 4640. Mammalogy (4)

Anatomy, behavior, classification, distribution, economic value, evolution, and life histories of mammals. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: ZOOL 3150 or ZOOL 3610 or equivalent. Offered alternate years.

ZOOL 4950. Selected Topics in Zoology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of zoology. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

ZOOL 4970. Selected Topics offered during Winter Term (4)



Business Administration

Thomas P. Barrett, M.A., Professor, Chairman Wayne R. Chapin, D.B.A., C.P.A., Professor David O. Jenkins, D.B.A., C.P.A., Professor Robert W. Lambright, D.B.A., Professor Kenneth G. Young, M.B.A., C.P.A., Professor Ronald W. Lodewyck, Ph.D., Associate Professor Cherukuri U. Rao, Ph.D., Associate Professor Alfred G. Tsacle, M.A., Assistant Professor Carl J. Schuetze, M.S., Lecturer

The Division of Business Administration has primary responsibility within the College for the preparation and continuing education of business administrators. The Division strives to meet this responsibility by offering a limited number of carefully selected and soundly developed programs and courses of instruction; by engaging in a continuing research effort of modest proportions in support of this instruction; and by providing appropriate service to the community.

The Division offers two degree programs: one leading to the degree Bachelor of Arts, Business Administration; the second leading to the degree Master of Business Administration (MBA). Courses in the B.A. degree program are offered both during the daytime and the evening. Courses in the MBA program are offered during the evening only. In addition to the regular on-campus course offerings, the Division schedules a number of upper division and graduate courses in the evening in Stockton. The Division also cooperates with the College's Office of Continuing Education in offering a limited but growing number of courses in business and administration designed to meet specific needs of the local community. These courses are offered as demand warrants.

THE BACHELOR OF ARTS, BUSINESS ADMINISTRATION

This program is intended to provide a basic preparation for careers in business administration within the context of a liberal education.

DEGREE OBJECTIVES

This program is designed to help each student acquire:

- A broad, liberal education.
- A basic understanding of the operation of a business enterprise.
- An understanding of the environment in which business exists and of which it is a part.

Business Administration

- Proficiency in analyzing, evaluating, and synthesizing managerial decisions.
- A degree of specialized training in a selected area of concentration.

PROGRAM STRUCTURE

The business administration major has three principal components: (1) prerequisites to the major, (2) the business administration core, (3) the area of concentration.

The prerequisites to the major, which overlap the General Education program, provide the essential ingredients in the foundation upon which the major is later constructed. Students should schedule these courses during their freshman and sophomore years.

The business administration core, which comprises about twothirds of the major, is a closely coordinated sequence of courses which introduces the student to the broad field of business administration, develops his knowledge of the basic organizational and economic concepts which underlie the operation of all business enterprises, and develops effective ways of thinking about complex situations encountered in business administration. Except for the integrating course in Business Policy, which must be taken as the last course in the major, students should schedule most courses in the core during their junior year.

The area of concentration, which comprises about one-third of the major, provides the opportunity for a limited amount of specialized study in a selected area of interest. Permissible areas of concentration currently available are Accounting, Finance, Marketing, Operations Administration, and Personnel Administration. Students may also elect to complete 12 units of approved upper division course work in business administration in lieu of a specified concentration. Course work in the area of concentration is, for the most part, restricted to the senior year.

REQUIREMENTS FOR THE BACHELOR OF ARTS, BUSINESS ADMINISTRATION

Students seeking the Bachelor of Arts, Business Administration must:

- Complete all college-wide requirements for the Bachelor of Arts degree.
- Complete the major, including the prerequisites to the major, the business administration core, and the selected area of concentration. Courses in the business administration core and the area of concentration must be completed for a letter grade.
- Complete with a grade of C or better all courses which are specified prerequisites to advanced courses in the student's major.

- Satisfy the Division's requirement for proficiency in English. (See below)
- Completion of a minor is not required.

RECOMMENDED LOWER DIVISION PREPARATION

Prospective business administration majors should emphasize General Education during the first two years, thus laying a foundation upon which the professional program can be built. addition, the specified prerequisites to the major should be completed. Elective courses should be chosen in the following areas: behavioral sciences, economics, English, and mathematics.

DEGREE MAJOR IN BUSINESS ADMINISTRATION

Prerequisites to the Major

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ECON 2500, 2510. Principles of Economics I, II, 8 units
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ENGL 1000. English Composition, 3 units ENGL 2050. Technical and Report Writing, 3 units MATH 1500. Finite Mathematics, 3 units

or MATH 1910. Calculus with Applications I, 3 units .

MATH 1610. Statistics for Decision Making, 3 units BUS 2000. Introduction to Computers, 2 units

BUS 2010. Computer Programming, 3 units

BUS 2060. Business Law, 3 units

BUS 2110. Principles of Financial Accounting, 4 units

BUS 2130. Managerial Accounting, 4 units

(Students concentrating in Accounting will substitute BUS 3140, Cost Analysis, 4 units)

The Business Administration Core

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BUS 3000. Quantitative Analysis for Business Decisions,
           3 units
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Organization and Environment, 4 units BUS 3010.

3220. Business Finance, 3 units BUS

BUS 3410. Basic Marketing, 3 units

BUS 4080. Business Policy, 3 units

ECON 3150. National Income Analysis, 3 units

THE AREA OF CONCENTRATION

Each student will either choose an area of concentration from those listed below or complete 12 units of approved upper division course work in business administration. Students who complete one of the concentrations listed below may have this concentration noted on their permanent record.

ACCOUNTING

Accounting is a systematic way of describing and analyzing economic activity in order to provide useful information for the guidance of management and others interested in an organization. It involves recording transactions, processing and analyzing the related financial and other quantitative data, and reporting results to management and/or other interested parties.

Work in accounting generally falls into two related areas: managerial accounting--providing useful information for the guidance of management, and financial accounting--reporting results to interested parties outside the organization. Professional careers in accounting are available in business, in government, and in public accounting.

Course requirements are as follows:

BUS 3110. Intermediate Accounting I, 3 units BUS 3120. Intermediate Accounting II, 3 units

Two of the following as approved by the major adviser:

BUS 4110. Advanced Accounting, 4 units

BUS 4120. Auditing, 4 units

BUS 4140. Income Tax Accounting, 4 units

BUS 4150. Seminar in Accounting Theory, 4 units

FINANCE

Business finance is the three-fold function of determining funds requirements, evaluating and selecting alternate sources of funds, and managing available funds in order to achieve specified objectives.

Professional careers in finance are to be found in the financial administration of industrial, commercial, utility, and government enterprises as well as in financial institutions such as commercial banks, brokerage houses, and investment companies.

Course requirements are as follows:

BUS 4210. Security Analysis & Portfolio Management, 4 units

BUS 4240. Management of Financial Institutions, 4 units

BUS 4250. Financial Management, 4 units

MARKETING

Marketing is the bridge which links the firm to the markets it serves. It includes measuring and interpreting market forces and market opportunities; developing products and/or services to match market opportunities; designing and managing channels of distribution; pricing, market cultivation--advertising, sales promotion, personal selling; and physical distribution.

Professional careers in marketing are to be found in the marketing departments of industrial firms, in merchandising firms, and in specialized marketing firms such as advertising agencies and marketing research agencies, etc.

Course requirements are as follows:

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BUS 4400. Consumer Behavior, 3 units
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BUS 4420. Marketing Research, 3 units

BUS 4490. Problems in Marketing Strategy, 3 units

One of the following as approved by the major adviser:

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BUS 4430. Sales Management, 3 units
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BUS 4440. Industrial Marketing, 3 units

BUS 4450. Retailing, 3 units

OPERATIONS ADMINISTRATION

Operations Administration is concerned with the functioning of operating systems in different types of organizations. It involves the analysis, design, implementation, operation, and control of integrated systems of manpower, material, facilities, and capital, for the conversion of inputs into desired products and/or services, and the distribution of these outputs. Emphasis is placed on the use of quantitative methodologies in the formulation and solution of management problems.

Career opportunities in the field of operations administration may be found in a variety of organizations--manufacturing firms, banks; hospitals, wholesale-retail chains, transportation firms, etc.

Course requirements are as follows:

DIIG	4360	Himan	Droblems	in	Administration.	7 units

BUS 4510. Production & Operations Administration, 3 units

BUS 4550. Introduction to Management Science, 4 units

One of the following as approved by the major adviser:

BUS 4370. Introduction to Systems Analysis & Design, 3 units

BUS 4520. Program Administration, 3 units

BUS 4530. Simulation of Operating Systems, 4 units

PERSONNEL ADMINISTRATION

Personnel Administration is the process of obtaining and maintaining the human resources of an organization. It includes manpower planning, personnel recruitment, selection and development, performance appraisal, compensation administration, and labor-management relations.

Professional careers in personnel administration may be found with government agencies, hospitals, universities, and labor unions, as well as with private businesses.

Course requirements are as follows:

Four of the following as approved by the major adviser:

BUS 4360. Human Problems in Administration, 3 units

BUS 4610. Personnel Administration, 3 units

BUS 4620. Labor Management Relations, 3 units

BUS 4630. Manpower Planning, 3 units

ECON 4100. Labor Economics, 3 units

DEGREE MINOR IN BUSINESS

Prerequisites to the Minor

BUS 2110. Principles of Financial Accounting, 4 units ECON 2500, 2510. Principles of Economics I, II, 8 units

Required Courses in Minor Field

BUS 3010. Organization and Environment, 4 units

Plus 9 upper division units as approved by the minor adviser.

REQUIREMENT FOR PROFICIENCY IN ENGLISH

Every student seeking a degree in business administration must meet the requirement for proficiency in English. Satisfactory completion of every course is contingent upon such proficiency. No student will be recommended for a degree in business administration unless his work in the program demonstrates satisfactory performance in the writing of English. Any student whose work reflects marked deficiency in English at any point in his degree program will be referred to the Chairman of the Division for such action as seems appropriate.

COURSE PREREQUISITES

Most business administration courses have specific subject matter prerequisites for enrollment. Students must complete, with a grade of C or better, all specified prerequisites (or their equivalents) in order to qualify for enrollment in these courses.

Students who have not successfully completed the specified prerequisites for a course, but who can offer convincing evidence of having acquired the necessary background by other means, may petition the professor in charge of the course for permission to enroll. At the discretion of the Division, a qualifying examination may be required.

TEACHING CREDENTIALS

The major and the minor in Business Administration do not constitute appropriate preparation for prospective teachers of business. However, a number of the courses currently offered by the Division may be used in partial fulfillment of the requirements for the credential in secondary education. Interested students should consult the chairman of the Division of Education for assistance in program planning.

MASTER OF BUSINESS ADMINISTRATION

The MBA Program provides professional education in business and administration for men and women who wish to prepare for responsible managerial and staff positions in business, various governmental agencies and other organizations, and for the recognized business professions.

DEGREE ÓBJECTIVES

This program is designed to help each student acquire:

- Increased capacity for quick, flexible adjustment to rapidly changing conditions.
- The capacity to use information effectively at the point of decision.
- The ability to make and execute decisions.
- Patterns of thinking and behavior in accordance with the gradually evolving standards of professional behavior.
- The ability to engage productively with others in a variety of organizational settings.
- The ability to relate the activities of the organization to a broad view of economic conditions and social attitudes.
- A foundation for continuing self-education and professional growth and development.

PROGRAM STRUCTURE

The MBA Program has two principal components: (1) the foundation program, and (2) the advanced program.

The Foundation Program is intended to give the student the essence of the undergraduate major in Business Administration.

The Advanced Program consists of a core of 6 required courses (18 units) and an area of specialization (12 units).

Each student will develop a specialization in a functional or analytical field which will meet his or her own unique needs and interests. Students may draw upon the resources of other departments of the college, as appropriate, in developing this part of their program. The current list of courses approved for this purpose may be obtained from the Division of Business Administration.

REQUIREMENTS FOR THE MASTER OF BUSINESS ADMINISTRATION

In addition to successfully completing all required courses, candidates for the MBA must:

- 1. Meet all college-wide requirements for masters' degrees.
- 2. Pass a comprehensive examination.
- Satisfy the Division's requirement for proficiency in English. (See above)
- Complete all requirements for the degree (Foundation Program, Advanced Program, comprehensive examination) within seven years.

ADMISSION TO THE PROGRAM

Qualified individuals will be admitted to the program without regard to their undergraduate major. There are no specific course prerequisites, majors, or areas of concentration that an applicant must complete in order to qualify. However, all applicants must hold a bachelor's degree from an accredited college or university. Applicants whose native language is not English will be required to demonstrate proficiency in English by completing the Test of English as a Foreign Language (TOEFL) with a score of 550 or above. Personal interviews are not normally required as part of the application procedure. On occasion, interviews may be requested by the Admissions Committee when it believes that an interview would be helpful in the processing of a particular application for admission.

Conditionally Classified Standing

The College admits qualified applicants to conditionally classified standing and advances them to classified standing when eligible. Conditionally classified graduate students are expected to make definite and timely progress toward the achievement of classified standing. Students must achieve classified standing within three calendar years from the date of first enrollment.

Classified Standing

Classified students are those who have been officially admitted to the MBA Program. Classified standing is a prerequisite for enrollment in 5000 level courses in business administration. To qualify for classified standing, students must demonstrate to the satisfaction of the admissions committee that they possess the potential for success in the MBA Advanced Program. In making its decisions the admissions committee will be guided by the following:

 Achievement on the Admission Test for Graduate Study in Business (ATGSB)--a minimum score of 450 is required.*

^{*}The Graduate Record Examination (GRE) is not an acceptable substitute for the Admission Test for Graduate Study in Business (ATGSB).

- Previous academic record--with particular reference to performance in courses in the MBA Foundation Program-a 3.0 (B) average is required in all Foundation Program courses taken subsequent to the baccalaureate degree.
- 3. Employment experience.
- 4. Letters of recommendation.
- 5. Statement of career objectives.

Students seeking classified standing must follow the procedures obtainable in the office of the Division of Business Administration.

Credit for Previously Completed Work

Students who possess the background equivalent to that which would be obtained by successful completion of any required courses in the MBA Program will be given suitable credit for this work. For courses in the Foundation Program, this means exemption from the course; for courses in the Advanced Program, this means the substitution of a more appropriate course. Students who believe that they have completed the equivalent of any required course must provide acceptable proof of course equivalency to the coordinator of the course, who will make the final decision.

SCHOLARSHIP STANDARDS

A 3.0 (B) average is required of all students in order to remain in good standing in the program. Students who earn less than a B average in any term are subject to review of their eligibility to continue in the program. Required withdrawal from the program may result.

RESEARCH OPTION

Although the MBA Program does not require a thesis, the opportunity to carry out a research project will be made available to interested students.

METHODS OF INSTRUCTION

Instruction is offered in small classes with heavy emphasis upon student participation. Case problem analysis, simulation exercises, group projects, lecture-discussions, independent research, role playing, field trips, etc., are all employed to the extent that they are effective aids to learning.

MASTER OF BUSINESS ADMINISTRATION PROGRAM

Foundation Program (30 units)*

Required Courses:

Business Finance, 3 units BUS 3220. or BUS 4250. Financial Management, 4 units BUS 4490. Problems in Marketing Strategy, 3 units BUS 4550. Introduction to Management Science, 4 units 4860. Computers in Business, 3 units BUS BUS 4870. Principles of Accounting, 5 units BUS 4880. Organizational Behavior, 3 units BUS 4890. Business Forecasting and Planning, 3 units ECON 3150. National Income Analysis, 3 units MATH 4840. Mathematics for Business, 3 units

Advanced Program (30 units)**

Required courses (18 units):

BUS 5080. Business Policy, 3 units BUS 5090. Seminar in Business and Society, 3 units 5110. BUS Graduate Accounting Seminar I, 3 units 5210. BUS Managerial Finance, 3 units 5310. BUS Seminar in Management, 3 units 5410. Marketing Management, 3 units BUS

Area of Specialization (12 units)

An approved sequence of courses in a functional or analytical field tailored to meet the unique needs and interests of the individual student. (Note: At least 6 of the 12 units must be in 5000 level courses; not more than 10 units of the 30-unit Advanced Program may be taken in any one field.)

^{*} Students who possess the background equivalent to that which would be obtained by successful completion of any required courses in the Foundation Program will be exempted from those courses.

^{**} Students who possess the background equivalent to that which would be obtained by successful completion of any required course in the Advanced Program will substitute a more appropriate course.

COURSE DESCRIPTIONS

Lower Division

BUS 2000. Introduction to Computers (2)

Computers and peripheral equipment and control software are considered as an integrated data processing system. Methods of problem definition and solution are explored along with the nature of data structures. Computers programming techniques are introduced. (Lecture, 1 hour; laboratory, 2 hours)

BUS 2010. Computer Programming (3)

A continuation of BUS 2000, with emphasis on computer programming in business applications. (Lecture, 1 hour; laboratory, 4 hours) Prerequisite: BUS 2000 or consent of instructor.

BUS 2060. Business Law (3)

Introduction to the law applicable to business firms and their operation; history and philosophy; sources of law; legal reasoning and procedure; law of contracts, agency.

BUS 2110. Principles of Financial Accounting (4)

An introduction to the principles of analyzing, recording, summarizing, communicating, and interpreting financial data of the business firm. Prerequisite: Sophomore standing.

BUS 2130. Managerial Accounting (4)

The analysis, use, interpretation, and synthesis of accounting, and financial data for and by management for planning, control. and decision-making purposes. Designed for students pursuing a concentration other than accounting; credit not applicable to the undergraduate accounting concentration. (Formerly 313) Prerequisite: BUS 2110 or consent of instructor.

BUS 2950. Selected Topics in Business Administration (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in business. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

BUS 2970. Selected Topics offered during Winter Term (4)

Upper Division

BUS 3000. Quantitative Analysis for Business Decisions (3)

Introduction to the application of selected optimization techniques to the solution of complex business problems; the use of quantitative information obtained from accounting and statistical sources in decision making for business. Prerequisites: MATH 1610, MATH 1500 or 1910, BUS 2000.

BUS 3010. Organization and Environment (4)

Examination of the complex relationships among environment, technology, and organizational design, structure, and performance. Attempts to provide an understanding of the organizational characteristics which enable firms to deal effectively with different environments. Prerequisites: ECON 2500, 2510, and junior standing; or consent of instructor.

BUS 3060. Advanced Business Law (3)

Law of business; emphasis on laws relating to sales, personal property, bailments, negotiable instruments, partnerships, corporations, real property, and insurance. (Formerly 317) Prerequisite: BUS 2060.

BUS 3110. Intermediate Accounting I (3)

Accounting theory, development of accounting principles, and their application to income determination and presentation of financial position for the business firm. Prerequisite: BUS 2110.

BUS 3120. Intermediate Accounting II (3)

A continuation of Intermediate Accounting I with particular emphasis on accounting for facilities investment, borrowed and equity capital, and managerial analysis of financial data. Prerequisite: BUS 3110 or consent of instructor.

BUS 3140. Cost Analysis (4)

Principles and objectives of cost accounting, including budgeting, estimated and standard costs, distribution and administrative costs, differential costs, profit planning, direct costs, and pricing policies. Prerequisite: BUS 2110.

BUS 3220. Business Finance (3)

Analysis of investment opportunities, determination of funds requirements, sources and uses of funds, cost of capital, capital structure, and funds management. Extensive use of case problems. Prerequisites: BUS 3000 and 2130 or 3140, concurrent enrollment permitted; or BUS 4870.

BUS 3310. The Administrative Process (3)

The nature of administration, its role, responsibilities, and functions. Administration is treated as a distinct activity applicable to all types of organizations—not just the business organization. Prerequisite: Junior standing.

BUS 3410. Basic Marketing (3)

Marketing process with emphasis on the management point of view. Consideration is given to the role played by marketing in the economy, dynamics of consumer motivation and behavior, and problems confronted by the business firm in establishing an overall marketing program. Prerequisite: BUS 3010, concurrent enrollment permitted.

BUS 4010. Readings in Business Administration (2)

Directed readings in a selected area within the broad field of business administration. May be repeated for a maximum of 4 units. Prerequisites: Consent of instructor and approval of division chairman.

BUS 4080. Business Policy (3)

Consideration of the business enterprise as a total system in a total environment. Analysis and evaluation of the problems and opportunities which face the chief executive of a business firm. Emphasis will be on the formulation and implementation of corporate strategy. Extensive use of the technique of case problem analysis. Prerequisite: Completion of all other courses in the business administration core.

BUS 4110. Advanced Accounting (4)

Accounting principles applied to accounting for partnership, installment sales, consignments, insolvency, estates, trusts, and business combinations. Prerequisite: BUS 3120 or consent of instructor.

BUS 4120. Auditing (4)

Standards and procedures broadly applied to examination of financial statements, including a consideration of the field of public accounting, professional ethics, internal controls, preparation of working papers, and audit reports. Prerequisites: BUS 3110, 3120.

BUS 4140. Income Tax Accounting (4)

History and philosophy of federal income tax law and regulations and procedures for determining income tax liability of business firms and individuals. Prerequisite: BUS 2110.

BUS 4150. Seminar in Accounting Theory (4)

History and development of accounting theory; accounting standards, conventions, and principles. Current problems, including a survey of current literature. Prerequisites: BUS 3110, 3120.

BUS 4180. Management Information Systems (3)

Analysis of internal (information) systems which are designed to provide management with a base of information of specified quality and scope in order to facilitate measurement and control of operations. Prerequisites: BUS 2010, 3220, 3410; concurrent enrollment permitted.

BUS 4210. Security Analysis and Portfolio Management (4)

A basic treatment of the problems of secutiry analysis (with special attention to determination of security values and investment timing) and of portfolio selection and management with special attention to the investment problems of the individual investor. (Field trips) Prerequisite: BUS 3220.

BUS 4240. Management of Financial Institutions (4)

Analysis of the various types of financial institutions and money markets, both banking and non-banking; emphasis on supply of funds; differentiating functions and practices; interrelationships of financial intermediation and business firms. (Field trips) Prerequisite: BUS 3220 or ECON 3320.

BUS 4250. Financial Management (4)

Analysis of financial problems and policies of non-financial firms. Includes consideration of both long and short term capital problems. Extensive use of case problems and simulation exercises. Prerequisite: BUS 3220 or BUS 4870.

BUS 4360. Human Problems in Administration (3)

The behavior of individuals and groups in administrative organizations. Emphasis on empirically derived knowledge about human behavior and its meaning to the administrator. Prerequisite: BUS 3010 or 3310 or consent of instructor.

BUS 4370. Introduction to Systems Analysis and Design (3)

The methodology of management systems study. Analysis and documentation of existing systems, determination of system requirements, new systems design and implementation. (Field trips) Prerequisite: BUS 4510.

BUS 4400. Consumer Behavior (3)

The consumer in the marketing process. Emphasis on the manner in which consumers approach decision-making situations and the manner in which predisposition, group influence, and time affect the decision-making process. Prerequisite: BUS 3410.

BUS 4420. Marketing Research (3)

Focus on the management of marketing information as a part of the decision-making process. Emphasis on application of research concepts, methods of analysis, and knowledge of the behavioral and quantitative disciplines in establishing an overall marketing program. (Field trips) Prerequisites: BUS 3000, 3410.

BUS 4430. Sales Management (3)

Planning, direction, and control of sales personnel and sales promotion activities. Sales management is approached as an integral element of overall marketing program of a firm. Prerequisite: BUS 3410.

BUS 4440. Industrial Marketing (3)

Analysis of the managerial activities in marketing of industrial goods. Coverage of market information, market planning, distribution methods, pricing strategies, and promotional problems in industrial marketing. Prerequisite: BUS 3410.

BUS 4450. Retailing (3)

Development of trends, organization, and geographic structure of retailing. Emphasis on management of location, layout, planning and budgeting, and control principles and policies of store operation; pricing, personnel, and customer services management. (Field trips) Prerequisite: BUS 3410.

BUS 4490. Problems in Marketing Strategy (3)

Analysis of management decisions arising from the marketing tasks of the firm. Role of the marketing executive in use of research, the elements of marketing strategy: product, channels of distribution, promotion, price, to arrive at policy decisions. Prerequisites: BUS 4400, 4420, or graduate standing, or consent of instructor.

BUS 4510. Production and Operations Administration (3)

Production problems of a managerial nature: production planning and control, product development, simplification and standardization, procurement, materials handling, methods improvement, impact of technological change. (Field trips) (Formerly 433) Prerequisites: BUS 3000, 3010.

BUS 4520. Program Administration (3)

Planning, organizing, administration, and control of programs. Administration of network systems. Includes programs such as development and introduction of new products, facilities expansion and relocation, construction projects, etc. (Field trips) (Formerly 434) Prerequisites: BUS 3000, 3010.

BUS 4530. Simulation of Operating Systems (4)

Study of basic computer simulation techniques as applied to business administration and management science; survey of various computer applications and languages; examination of theoretical and experimental considerations. The course will make extensive use of the computer. Prerequisites: BUS 2010, 3000, 3010.

BUS 4550. Introduction to Management Science (4)

Analysis by quantitative techniques for managerial planning and decision making. The modeling process; linear, integer, quadratic and dynamic programming; system simulation. Application of statistical methods to problems in business administration. Prerequisite: BUS 3000 or MATH 4840.

BUS 4610. Personnel Administration (3)

Formulation and administration of policies designed to obtain and to maintain the human resources of the organization. Manpower planning, personnel selection and development, performance appraisal, compensation, evaluation of the personnel program. (Formerly 431) Prerequisite: BUS 3010 or consent of instructor.

BUS 4620. Labor Management Relations (3)

Perspectives on the internal relationship between management and unionized employees. (Formerly 432) Prerequisite: BUS 4610.

BUS 4630. Manpower Planning (3)

The objectives of manpower management; determination of manpower needs; designing programs to provide the needed manpower; problems and potentials. Prerequisite: BUS 4610.

BUS 4720. Data Base System Concepts (3)

Data structures, queries, file organization and data management. Analysis of query programs and indexing techniques, including developing hashing algorithms. Prerequisite: BUS 2010.

BUS 4730. Advanced Business Programming (3)

The application of advanced programming concepts in the solution of business problems: sorting techniques, internal

tables, list and tree structures, dynamic storage allocation, modular programming, etc. Prerequisite: BUS 2010.

BUS-4860. Computers in Business (3)

An introduction to computers, peripheral equipment and software capability within the business firm. A study of problem analysis and solution, and computer programming technology. The course will make extensive use of the computer. Prerequisite: Graduate standing.

BUS 4870. Principles of Accounting (5)

The principles, concepts, and conventions employed in measuring business transactions and analyzing, interpreting, and reporting results to management and other users of financial information. Prerequisite: Graduate standing.

BUS 4880. Organizational Behavior (3)

Study of human behavior in complex social organizations. Analysis of organization systems and managerial actions in terms of their influence on behavior patterns. Prerequisite: Graduate standing.

BUS 4890. Business Forecasting and Planning (3)

Developing strategic plans with emphasis on product-market relationships. Goal setting, objective specification, environmental definition and assessment, analysis and evaluation of the competitive situation, formulation of plans. Prerequisite: Graduate standing.

BUS 4950. Selected Topics in Business Administration (Topics to be specified in Class Schedule) (1-5)

Innovative course of study. Different topics may be taken for credit. Prerequisite: Consent of instructor.

BUS 4970. Selected Topics offered during Winter Term (4)

BUS 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisites: Consent of instructor and approval of division chairman.

Graduate

BUS 5010. Readings in Business Administration (2)

Directed readings in a selected area within the broad field

of business administration. May be repeated for a maximum of 4 units. Prerequisite: Consent of instructor and approval of division chairman.

BUS 5080. Business Policy (3)

The formulation, implementation, and administration of corporate strategy. Study, through the technique of case problem analysis, of the pattern of goals and objectives which define a firm, and of the means of the execution of strategy in a specific situation. Prerequisites: BUS 5110, 5210, 5310, and 5410.

BUS 5090. Seminar in Business and Society (3)

Examination of problems and issues involving the interaction and adaptation of business and its legal, political, and social environment. The course is developed around a series of current problems chosen to raise some major issues. Prerequisite: Classified graduate standing.

BUS 5110. Graduate Accounting Seminar I (3)

The application of advanced accounting theory in modern business. Emphasis on current issues and the development of accounting theory. Prerequisite: Classified graduate standing.

BUS 5210. Managerial Finance (3)

This course focuses attention on financial management of business enterprises and its relation to other functional areas of management and to general business policy. Cases and problems provide application of theory to financial decisions involving cash flow management, capital structure planning, capital costs and capital budgeting, dividend policy, and valuation of enterprises operating for profit. Prerequisite: Classified graduate standing.

BUS 5310. Seminar in Management (3)

Current issues and emerging concepts in management. The application of findings and concepts from the behavioral sciences and from management science to problems in management in business firms and other organizations. Prerequisite: Classified graduate standing.

BUS 5410. Marketing Management (3)

Emphasis on managerial decision making and problem solving to formulate and administer effective marketing activities. Marketing as a total system designed to plan, price, distribute, and promote goods and/or services to users. Extensive use of case problems covering buyer behavior, product, channel of distribution, pricing, and promotion. Prerequisite: Classified graduate standing.

BUS 5970. Selected Topics offered during Winter Term (4)

BUS 5980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisites: Consent of instructor and approval of division chairman.

Chemistry

Alexander J. Pandell, Ph.D., Associate Professor, Chairman
Evan M. Thompson, Ph.D., Professor
John Almy, Ph.D., Associate Professor
Hobart G. Hamilton, Jr., Ph.D., Associate Professor
Jimmy W. Hinkson, Ph.D., Associate Professor
James E. Byrd, Ph.D., Assistant Professor
Michael J. Perona, Ph.D., Assistant Professor

The Department of Chemistry offers the degrees Bachelor of Arts and Bachelor of Science, Chemistry. The student should consult with his departmental adviser to determine which degree is more suitable for his career objective. A student may also qualify for a concentration in the Environmental Sciences in addition to his degree in chemistry.

BACHELOR OF SCIENCE

This program is accredited by the American Chemical Society (ACS) and provides the comprehensive training in chemistry necessary for the student who wishes to become a professional chemist in industry or government, or who plans to attend graduate school. Students wishing to receive a degree accredited by the American Chemical Society must complete one year of German or computer science in addition to the major requirements for the Bachelor of Science degree listed below. Students obtaining an accredited degree are eligible to join the ACS immediately upon graduation.

BACHELOR OF ARTS

In contrast to the B.S. program, the Bachelor of Arts program is designed for those seeking to enter professions requiring moderate training in chemistry combined with training in other areas. Example are health professions such as medicine, optometry, dentistry, medical technology, pharmacy, physical therapy, and veterinary medicine. Technical sales writing, chemical patent law, library work, and high school teaching would be examples of other careers for Bachelor of Arts graduates. The student will be advised to take specific courses depending on his field of interest; for example, ZOOL 1050, CHEM 4010, 4400, and ZOOL 3130 or ZOOL 3150, or both, in preparation for dental, medical, or veterinary medical schools. Further information on the health professions area can be obtained from the Health Sciences Advisory Committee.

REQUIREMENTS FOR THE BACHELOR OF ARTS'OR BACHELOR OF SCIENCE, CHEMISTRY

Chemistry majors are to:

- Complete the college requirements for the bachelor's degree.
- Complete prerequisites to the major; CR grades will not be accepted for chemistry prerequisites.
- 3. Complete a major of not less than 24 upper division units as specified for the Bachelor of Arts degree, or 31 upper division units as specified for the Bachelor of Science degree; of these, no more than 8 units of CR graded course work may apply toward the major.
- 4. Completion of a minor is not required.

BACHELOR OF ARTS DEGREE IN CHEMISTRY

Prerequisites to the Major:

Required courses in the major field:

/ CHEM 1100, 1110. Principles of Chemistry I, II, 10 units CHEM 2010. Quantitative Analysis & Basic Instrumental Techniques, 4 units

Required courses in supporting fields:

MATH 1910, 1920. Calculus with Applications I, II, 6 units

OR

MATH 1410, 1420. Calculus I, II, 8 units

Either of the following sequences:

PHYS 1100, 1110. Basic Physics I, II, 10 units OR PHYS 2250, 2260. General Physics I, II, 8 units PHYS 2350, 2360. General Physics Laboratory I, II, 2 units

The Major Units

CHEM 301	0, 3020.	Organic	Chemistry	I, I	Ι.							6
CHEM 303	3040.	Organic	Chemistry	Lab	Ι,	II						4
CHEM 401	D. Physi	cal Chemi	stry I .		٠.							3
CHEM 403). Physi	cal Chemi	stry Lab				_	_	_	_	_	1

CHEM 4100. Instrumental Analysis

At least 6 credit hours from the following courses:

CHEM 4020. Physical Chemistry II, 3 units CHEM 4030. Physical Chemistry Lab, 1-2 units

CHEM 4200. Advanced Inorganic Chemistry, 3 units

CHEM 4210. Coordination Chemistry, 2 units

Chemistry

Unit	ĊS
CHEM 4300. Advanced Organic Chemistry, 3 units CHEM 4400. Biochemistry, 3 units CHEM 4410. Biochemistry Laboratory, 1 unit CHEM 4950. Selected Topics in Chemistry, 1-5 units CHEM 4960. Research Seminar, 1 unit CHEM 4980. Individual Study, 1-4 units	
BACHELOR OF SCIENCE DEGREE IN CHEMISTRY	
Prerequisites to the Major:	
Required courses in the major field:	
CHEM 1100, 1110. Principles of Chemistry I, II, 10 units CHEM 2010. Quantitative Analysis & Basic Instrumental Techniques, 4 units	;
Required courses in supporting fields:	
MATH 1410, 1420. Calculus I, II, 8 umits MATH 2410. Multivariate Calculus, 4 units MATH 2420. Linear Algebra & Differential Equations, 4 umits PHYS 2250, 2260. General Physics I, II, 8 umits PHYS 2350, 2360. General Physics Laboratory I, II, 2 umi	its
The Major Units	;
CHEM 3010, 3020. Organic Chemistry I, II 6 CHEM 3030, 3040. Organic Chemistry Laboratory I, II 4 CHEM 4010, 4020. Physical Chemistry I, II 6 CHEM 4030. Physical Chemistry Lab 2 CHEM 4100. Instrumental Analysis	
At least 6 credit hours from the following courses:	
CHEM 4210. Coordination Chemistry, 2 units CHEM 4300. Advanced Organic Chemistry, 3 units CHEM 4400. Biochemistry, 3 units CHEM 4410. Biochemistry Laboratory, 1 unit CHEM 4950. Selected Topics in Chemistry, 1-5 units CHEM 4960. Research Seminar, 1 unit CHEM 4980. Individual Study, 1-4 units PHYS 3520. Modern Physics, 3 units PHYS 4450. Nuclear Physics, 3 units PHYS 4530. Thermal & Statistical Physics I, 3 units 6	
Total	,

One of the following sequences as approved by the student's major adviser should be taken by those students wishing an ACS accredited degree.

GERM 1010, 1020. Elèmentary German I, II, 8 units or MATH 2000, 2010. Introduction to Computers; Computer Programming, 5 units

DEGREE MINOR IN CHEMISTRY

Consists of 18 units in chemistry as approved by the department, which must include at least 8 upper division units.

ENVIRONMENTAL SCIENCES CONCENTRATION

A chemistry major may complete additional requirements in the sciences and mathematics to qualify for a concentration in Environmental Sciences. This program requires study in biological sciences, chemistry, mathematics, and physical sciences, along with an environmental seminar and investigation of an environmentally related problem. Further details are found in the Environmental Sciences section of this catalog.

LIBERAL STUDIES CONCENTRATION IN CHEMISTRY

COURSE DESCRIPTIONS

Lower Division

CHEM 1000. Chemistry in the Modern World (3)

Basic principles of chemistry as applied to the world around us. A descriptive course designed to satisfy both the General Education requirements of the non-science student and the chemistry requirement for the elementary school teacher. Not open to students with previous college chemistry. (Lecture, 3 hours)

^{*}CHEM 1100, which is prerequisite to this course, can be taken in place of CHEM 1000 for those Liberal Studies students opting for the chemistry concentration.

Chemistry

CHEM 1100. Principles of Chemistry I (5)

Fundamental principles of chemistry emphasizing atomic structure, periodic properties, theories of bonding, kinetic theory of gases, solution chemistry. (Lecture 3 hours; discussion, 1 hour; laboratory, 3 hours) (Formerly 101, 102) Prerequisite: Two years of high school algebra or consent of instructor.

CHEM 1110. Principles of Chemistry II (5)

A continuation of CHEM 1100, emphasizing gaseous and ionic equilibria, electrochemical principles, thermodynamics, radiochemistry, and descriptive chemistry of the elements. (Lecture, 3 hours; laboratory, 6 hours) (Formerly 102, 103) Prerequisite: CHEM 1100.

CHEM 2010. Quantitative Analysis & Basic Instrumental Techniques (4)

Principles and practice of volumetric, gravimetric, and instrumental methods of analysis. (Lecture, 2 hours; laboratory, 6 hours) (Formerly 211) Prerequisite: CHEM 1110.

CHEM 2400. The Science of Winemaking (4)

A basic and practical introduction to the science of wine-making. Topics to include fermentation, history of the wine industry, and related topics. Basic chemical concepts will be developed to facilitate the understanding of the subject matter. Prerequisites: None.

CHEM 2950. Selected Topics in Chemistry (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of chemistry. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

CHEM 2970. Selected Topics offered during Winter Term (4)

Upper Division

CHEM 3010. Organic Chemistry I (3)

Structure, properties, reactions, and stereochemistry of carbon compounds. Reaction mechanisms. Applications of spectroscopy to organic molecules. Carbohydrates, amino acids, and proteins. (Lecture, 3 hours) Concurrent enrollment in CHEM 3030 required. (Formerly 321, 322) Prerequisite: CHEM 1110.

CHEM 3020. Organic Chemistry II (3)

Continuation of CHEM 3010. (Lecture, 3 hours) Concurrent

enrollment in CHEM 3040 required. (Formerly 322, 323) Prerequisite: CHEM 3010.

CHEM 3030. Organic Chemistry Laboratory I (1-2)

Basic laboratory techniques, simple organic syntheses, isolation of natural products, multi-step syntheses, vapor phase chromatography, thin-layer chromatography, qualitative organic analysis, spectroscopic applications to structure determination. (Laboratory, 3 or 6 hours) Concurrent enrollment in CHEM 3010 required. (Formerly 324, 325) Prerequisite: CHEM 1110.

CHEM 3040. Organic Chemistry Laboratory II (1 or 2)

Continuation of CHEM 3030. (Laboratory, 3 or 6 hours) Concurrent enrollment in CHEM 3020 required. (Formerly 325, 326) Prerequisite: CHEM 3030.

CHEM 4010. Physical Chemistry I (3)

The three laws of thermodynamics, equilibrium, critical properties of gases, osmosis, phase rule, electrochemistry, chemical kinetics, molecular structure, and spectroscopy. (Lecture, 3 hours) (Formerly 461) Prerequisites: One year of calculus and one year of physics.

CHEM 4020. Physical Chemistry II (3)

Continuation of CHEM 4010 (Lecture, 3 hours) Concurrent enrollment in CHEM 4030 required. (Formerly 462) Prerequisites: MATH 1420, CHEM 4010.

CHEM 4030. Physical Chemistry Laboratory (1 or 2)

Laboratory applications of the principles of physical chemistry. (Laboratory, 3 or 6 hours) (Formerly 403, 404) Prerequisites: CHEM 4010 and concurrent enrollment in CHEM 4020 if the course is taken for 2 units. CHEM 4010 only, if the course is taken for 1 unit.

CHEM 4100. Instrumental Analysis (4)

Instrumental methods of chemical analysis including discussion of the theory and application of nuclear magnetic resonance, electron spin resonance, mass spectroscopy, infrared, Raman, visible-ultraviolet and atomic absorption spectroscopy; flame photometry; X-ray diffraction, neutron activation analysis; ESCA; specific ion electrode methods; gas, liquid, and ion-exchange chromatography. (Lecture, 2 hours; laboratory, 6 hours) (Formerly 412) Prerequisites: CHEM 2010, 3020 and 4010, or consent of instructor.

Chemistry

CHEM 4200. Advanced Inorganic Chemistry (3)

Atomic structure, periodic properties, theories of bonding, structure, introduction to coordination chemistry, and reactions of representative elements. (Lecture, 3 hours) (Formerly 401) Prerequisite: CHEM 4010 or consent of instructor.

CHEM 4210. Coordination Chemistry (2)

Structure, bonding, spectra and reactions of representative metal complexes. (Lecture, 2 hours) Prerequisite: CHEM 4200.

CHEM 4300. Advanced Organic Chemistry (3)

Chemical kinetics, structure-reactivity relationships, molecular orbital theory, orbital symmetry, reactive intermediates, rearrangements and neighboring group effects, nucleophilic aliphatic substitution, photochemistry. (Lecture, 3 hours) (Formerly 427) Prerequisite: CHEM 3020.

CHEM 4400. Biochemistry (3)

The chemistry, metabolism, enzymology, and energy relationships of important biological compounds and processes. (Lecture, 3 hours) (Formerly 480) Prerequisite: CHEM 3020 or consent of instructor.

CHEM 4410. Biochemistry Laboratory (1)

An introduction to biochemical techniques including chromatography, enzyme purification, spectrophotometry, and fluorimetry. (Laboratory, 3 hours) Prerequisite: Concurrent enrollment in CHEM 4400 or consent of instructor.

CHEM 4950. Selected Topics in Chemistry (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of chemistry. Topics vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

CHEM 4960. Research Seminar (1)

The presentation of research results or topical literature surveys by students and visiting scientists. May be repeated for a total of 2 units. Prerequisite: Senior standing or consent of instructor.

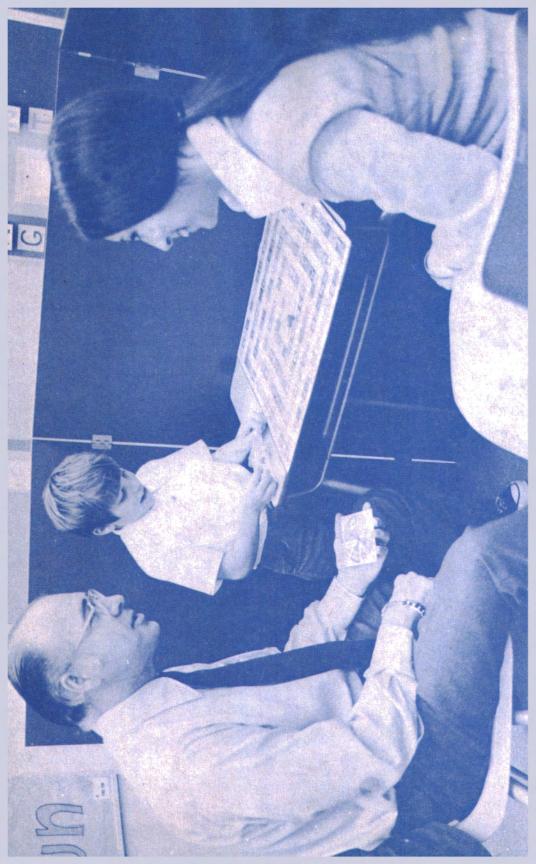
CHEM 4970. Selected Topics offered during Winter Term (4)

CHEM 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

CHEM 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.



Child Development

Max C. Norton, Ph.D., Professor of Speech & Communication Science,
Coordinator

The Bachelor of Arts degree program in Child Development is an interdisciplinary based program which provides the student with a background of skills and knowledge which are designed to prepare him for the following career-oriented options:

- To work in Child Development centers preparatory to the awarding of the certificate for supervision of Child Development Centers.
- To constitute a basis for advanced study leading to specialized credentials in Earl Childhood Education and Learning Disabilities.
- To provide an area of concentration for the Liberal Studies degree prerequisite, for the Multiple Subject Teaching Credential. (See Liberal Studies)

REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE IN CHILD DEVELOPMENT

- Complete General Education requirements for the Bachelor of Arts degree.
- Complete 12 units of lower division prerequisites at an accredited community college in the following curricular concentrations in Child Development:
 - a. Six units of lower division practicum in guidance and management of young children. Practicum must be taken in the following types of course of study: child development laboratory, nursery school practice, and early childhood theory and practice.
 - b. Six units of lower division electives in course work dealing with the following areas of knowledge: nature of early childhood growth and development, child, family and community interrelationships.
- Complete the major requirements of not less than 34 units of approved upper division course work.

 Curricular

Objective CORE PROGRAM - 18 required units Module* Human Development, 3 units PSYC 3130. F, I PSYC 3160. Intro to Psychological Testing, 3 units G, I PSYC 3170. Early Cognitive Development, 3 units G, I PSYC 3700. Intro to Learning Motivation, 3 units Ι SPCH 3010. Language & Speech Development, 3 units Α SPCH 4720. A, F, G Developmental Assessment, 3 units

ELECTIVES - 16 units from the following courses:

No more than 6 units of electives may be earned in a given

	Curric		
CORE PROGRAM - 18 required units	Objec Modu		
COME PRODUCT - To required unites	Mode		•
PSYC 3130. Human Development, 3 units	F	7,	Ι
PSYC 3160. Intro to Psychological Testing, 3 units			Ι
PSYC 3170. Early Cognitive Development, 3 units			Ι
PSYC 3700. Intro to Learning Motivation, 3 units		•	Ι
SPCH 3010. Language & Speech Development, 3 units			Α
SPCH 4720. Developmental Assessment, 3 units	A, F	7,	G
ELECTIVES - 16 units from the following courses:			
No more than 6 units of electives may be earned in			
a given curricular objective module.*			
ENGL 4620. Children's Literature, 3 units			D
PHED 4200. Motor Learning, 3 units			F
PHED 4400. Kinesiology, 3 units			E E
PHED 4500. Physiology of Exercise, 3 units		,	
PSYC 3120. Human Development Laboratory, 1 unit	r	₹,	I
PSYC 3300. Social Psychology Laboratory, 1 unit			G
PSYC 3310. Intro to Social Psychology, 3 units			G
PSYC 3320. Introduction to Personality, 3 units		ł,	
PSYC 3350. Intro to Study of Abnormal Behavior, 3 un		ł,	
PSYC 4150. Learning Disabilities, 3 units		I,	
PSYC 4720. Experimental Analysis of Behavior, 3 unit	S G, E	1,	
SOCL 3150. The Family, 3 units			G G
SOCL 3160. Sociology of Youth, 2 units			
SPCH 3000. Phonetics, 3 units	P	١,	ע
SPCH 3400. Oral Interpretation of Children's	,		n
Literature, 3 units	ŕ	١,	D
SPCH 3610. Introduction to Communication Disorders, 3 units			Α
SPCH 3910. Speech Activities, 2 units			A
SPCH 4010. Structural & Psycholinguistics, 5 units			A
ordin 4010. Schuctural q isychollinguiscies, 5 miles			^

^{*} Curricular Objective Modules

In the Core Program and Electives listed above, the Curricular Objective Modules applicable to each of the courses are noted.

A - Development of Language Abilities

B - Numerical Concepts & Skills

C - Science Concepts

D + Aesthetic Concepts

E - Health and Nutrition

F - Physical Development

G - Social Development

H - Emotional Development

I - Cognitive Development

LIBERAL STUDIES CONCENTRATION IN CHILD DEVELOPMENT

In accordance with the objectives of the program, the Child Development degree is designed to provide a major area of concentration for students who are majoring in Liberal Studies.

The following courses comprise the Child Development concentration: 20 semester units

Required Courses:

- PHED 4200. Motor Learning, 3 units
- PSYC 2020. Introduction to Psychological Methods, 3 units
- PSYC 3130. Human Development, 3 units
- PSYC 3170. Early Cognitive Development, 3 units
- SPCY 4720. Developmental Assessment, 3 units

Electives:

- PSYC 3120. Human Development Laboratory, 1 unit
- PSYC 3700. Introduction to Learning and Motivation, 3 units
- PSYC 4150. Learning Disabilities, 3 units
- PSYC 4720. Experimental Analysis of Behavior, 3 units
- SOCL 3160. Sociology of Youth, 2 units
- SPCH 3610. Introduction to Communication Disorders, 3 units
- SPCH 4010. Structural and Psycholinguistics, 5 units

Drama

Douglas McDermott, Ph.D., Professor, Chairman Noble T. Dinse, M.A.T., Associate Professor Bruce D. Hood, M.A., Associate Professor Jere D. Wade, Ph.D., Associate Professor Richard Levering, M.A., Assistant Professor

The Department of Drama offers the degree, Bachelor of Arts, Drama. The Department trains undergraduates as general practitioners in the art of theatre. The curriculum balances theoretical and practical work and features a close relationship between courses and production. Students and faculty work together on all aspects of production in a 300-seat mainstage theatre and a 100-seat studio. Upon completion of the drama major, a student should be able to collaborate with others in the operation of a theatre or to qualify for further professional training as an artist or as a scholar. Courses in the drama curriculum also provide aesthetic and cultural enrichment for the student in liberal arts.

REQUIREMENTS FOR THE BACHELOR OF ARTS, DRAMA

Drama majors are to:

- 1. Complete the requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- 3. Complete the major of not less than 37 upper division units as approved by the major adviser. No more than 4 units of CR graded course work may apply toward the major.
- 4. Completion of a minor is not required.

DEGREE MAJOR IN DRAMA

Prerequisites to the Major:

DRAM	2000.	Basic Performance, 1 unit
DRAM	2100.	Basic Theatre Management, 1 unit
DRAM	2210.	Basic Makeup, 1 unit
DRAM	2220.	Basic Lighting, 1 unit
DRAM	2230.	Basic Technical Production, 1 unit
DRAM	2240.	Basic Costuming, lunit
DRAM	2300.	Theatre Workshop I, 2 units
DRAM	2500	Reginning Acting 3 units

The Major		Units
DRAM 3000.	Acting	4
	Stagecraft	
DRAM 3410.	Dramatic Theory and Criticism	3
DRAM 3510.	History of Theatre I	3
DRAM 3520.	History of Theatre II	3
DRAM 4300.	Theatre Workshop II	6
DRAM 4350.	Rehearsal and Performance II	3
DRAM 4600.	Directing	4
DRAM 4610.	Senior Project	4

One of the follo	owing as recommended by the major adviser:
DRAM 3220. Sta	eup, 3 units ge Lighting, 3 units
DRAM 3230. Scen DRAM 3240. Cos	ne Design, 3 units tuming, 3 units
Tota	al
Elective Courses	
	with the major adviser, one or more of the courses may be selected to supplement areas
DRAM 2950-4950.	Selected Topics in Drama, 1-5 units
DRAM 3250. Cost	tume Design, 3 units temporary Theatre, 3 units
DRAM 3530. Con	temporary Theatre, 3 units
DRAM 4000. Adv	anced Acting, 4 units rican Theatre, 3 units
DRAM 4550. Ame:	rican Theatre, 3 units
DRAM 4980-5980.	Individual Study, 1-4 units
LIBERAL ST	UDIES CONCENTRATION IN DRAMA
Twenty-one or to	wenty-two units as approved by a drama adviser
Lower Division	·
DRAM 2100. Bas	ic Theatre Management 1
*DRAM 2300. The	atre Workshop I 1
DRAM 2500. Beg	inning Acting 3
Two courses sele	ected from the following:
DRAM 2210. Bas	ic Makeup, 1 unit
DRAM 2220. Bas	ic Lighting, 1 unit
DRAM 2240. Bas	ic Costuming, 1 unit 2
Upper Division	•
DRAM 3200. Sta	
DRAM 4600. Dir	ecting 4
Two courses sel	ected from the following:
DRAM 3000. Act	
DRAM 3210. Mak	eup, 3 units
DRAM 3220. Sta	ge Lighting, 3 units
DRAM 3240. Cos	tuming, 3 units <u>6-7</u>
Tota	al
*Connet onnly toyon	d the concentration if used to satisfy

^{*}Cannot apply toward the concentration if used to satisfy Liberal Studies Area C requirements.

COURSE DESCRIPTIONS Lower Division

DRAM 1010. Introduction to Theatre (3)

Introductory survey of theatrical art. The theatre as an art form; elements of theatre; classroom practice in the fundamentals of theatrical production. (Formerly 220)

DRAM 2000. Basic Performance (1)

Exercise in vocal and pantomimic technique for the beginning performer. Theatre games and improvisation designed to develop the human instrument.

DRAM 2010. Theatre and Society (3)

Survey of major periods in which theatre and drama have flourished in Western society, including classic Greek, Elizabethan, and modern European. Emphasis on the relationship between theatre and society: how theatre and drama reflect social concerns; how social conditions influence plays, playhouses, and performance.

DRAM 2100. Basic Theatre Management (1)

An introduction to the methods of operating a theatre as a business; publicity, box office, and house management.

DRAM 2210. Basic Makeup (1)

An introduction to the practice of making up for the stage.

DRAM 2220. Basic Lighting (1)

An introduction to the practice of lighting the stage; basic electricity, creation of effects, and operation of current devices.

DRAM 2230. Basic Technical Production (1)

An introduction to the techniques of backstage operation.

DRAM 2240. Basic Costuming (1)

An introduction to the practice of costuming a play; basic sewing techniques, and methods of reproducing period costumes.

DRAM 2300. Theatre Workshop I (1-2)

Practice in all phases of theatrical production, except acting and stage management. May be repeated for credit once each semester. DRAM 2350. Rehearsal and Performance I (3)

Practice in acting and in stage management for public performance. May be repeated for credit once each semester.

DRAM 2500. Beginning Acting (3)

Vocal training and exercise in expressive movement. Basic steps in characterization, script analysis, and rehearsal techniques. (Formerly 200 & 250) Prerequisite: DRAM 2000, or consent of instructor.

DRAM 2950. Selected Topics in Drama (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in drama. Topics may vary each term and are frequently selected to complement current dramatic productions. Different topics may be taken for credit.

DRAM 2970. Selected Topics offered during Winter Term (4)

Upper Division

DRAM 3000. Acting (4)

Study and practice of acting through reading of prominent theories, rehearsal, and performance of selected scenes from classic and modern plays. Prerequisite: DRAM 2500 or consent of instructor.

DRAM 3050. Introduction to Cinema (3)

Study of the cinema and its relationship to contemporary culture. Includes a survey of selected films, critical discussions, and written appraisal of films. (Formerly 424) (Same as ENGL 3050)

DRAM 3200. Stagecraft (4)

Principles and practice in the techniques of building, painting, mounting, and rigging of stage scenery and properties for production. (Formerly 320 & 321) Prerequisites: DRAM 2220 and 2230, or consent of instructor.

DRAM 3210. Makeup (3)

Principles and practice in the art of theatrical makeup. (Pormerly 309) Prerequisite: DRAM 2210 or consent of instructor.

DRAM 3220. Stage Lighting (3)

Theory and practice in the art of designing effective stage lighting. Prerequisites: DRAM 3200 and consent of instructor.

Drama

DRAM 3230. Scene Design (3)

Principles and practice in the techniques of creating effective scenery for the stage. Prerequisites: DRAM 3200 and consent of instructor.

DRAM 3240. Costuming (3)

Principles and practice in the art of theatrical costuming. (Formerly 306) Prerequisite: DRAM 2240 or consent of instructor.

DRAM 3250. Costume Design (3)

Fundamentals of costume design and history of costume periods. (Formerly 307) DRAM 3240 recommended.

DRAM 3410. Seminar in Dramatic Theory and Criticism (3)

Investigation of dramatic and theatrical works as art forms. Introduction to methods of critical analysis.

DRAM 3510. History of Theatre I (3)

Historical analysis of theatre from its primitive origins through the neo-classic period in France. (Formerly 421 & 422)

DRAM 3520. History of Theatre II (3)

Historical analysis of theatre from the time of the Restoration in England to the outbreak of World War II. (Formerly 422 & 423)

DRAM 3530. Contemporary Theatre (3)

Historical analysis of the theatre since World War II. Emphasis on recent developments.

DRAM 4000. Advanced Acting (4)

Rehearsal and performance of scenes selected for their particular challenge to the advanced student. Emphasis on special problems of the individual student. Enrollment limited. Prerequisites: DRAM 3000 and consent of instructor.

DRAM 4300. Theatre Workshop II (2)

Advanced practice in all phases of theatrical production, except acting and stage management. May be repeated for credit once each semester. Prerequisite: Upper division standing.

DRAM 4350. Rehearsal and Performance II (3)

Practice in acting and in stage management for public performance. May be repeated for credit once each semester.

Prerequisite: Upper division standing.

DRAM 4550. American Theatre (3)

Historical analysis of theatre and drama in the United States from Colonial times to the outbreak of World War II.

DRAM 4600. Directing (4)

Examination of history, principles, and procedures of the theatrical director. Practical scene work in composition, movement, and tempo. Practical scene work in period styles.

DRAM 4610. Senior Project (4)

Senior drama majors, in consultation with the drama faculty, will produce a series of public performance projects. Prerequisites: Standing as a senior drama major and consent of instructor.

DRAM 4950. Selected Topics in Drama (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in drama. Topics may vary each term and are frequently selected to complement current dramatic productions. Different topics may be taken for credit.

DRAM 4970. Selected Topics offered during Winter Term (4)

DRAM 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

DRAM 5980. Individual Study (1-4)

For postbaccalaureate students capable of independent work and in need of advanced specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Economics

Frederick E. Kottke, Ph.D., Professor, Chairman William Dale Crist, Ph.D., Associate Professor Yin-Po Lee, Ph.D., Associate Professor

H. Dieter Renning, Dr. rer. pol., Associate Professor Edward C. Erickson, Ph.D., Assistant Professor

The Department of Economics offers the degree Bachelor of Arts, Economics. It also offers the Master's in Public Administration jointly with the Department of Political Science. The objectives of the major in economics are: (1) to provide a concentration in economics as the central core of a liberal oriented education; (2) to provide the major with courses in advanced theories and principles of production, distribution, exchange, and consumption, thus enabling the major to enter graduate study at leading universities; (3) to provide an expanded preprofessional base for the prospective business administration major enabling him to satisfy vocational objectives in government, business, and/or industry; and (4) to provide undergraduate and graduate service courses for the Masters of Public Administration (MPA) program.

REQUIREMENTS FOR BACHELOR OF ARTS, ECONOMICS

Economics majors are to:

- 1. Complete the requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- Complete the major of not less than 24 upper division units; of these no more than 8 units of CR graded work may apply toward the major.
- 4. Completion of a minor is not required.

DEGREE MAJOR IN ECONOMICS

Prerequisites to the Major:

ECON 2500, 2510. Principles of Economics I, II, 8 units

Recommended courses in supporting fields:

Course work in mathematics as recommended by major adviser.

The Major

A minimum of 24 upper division units in economics including a course in microtheory and macrotheory (ECON 4200 and 4000), Quantitative Analysis (ECON 3200), Senior Seminar (ECON 4960) and

at least one course each from four of the areas of specialization:

- 1. Money and Banking
- 2. Economic Theory and Doctrines
- Labor Economics
- 4. International Economics
- 5. Public Finance and Fiscal Policy
- 6. Economic History
- 7. Quantitative Economics

DEGREE MINOR IN ECONOMICS

Principles of Economics and 12 units of upper division courses as approved by the minor adviser.

TEACHING CREDENTIALS

Economics majors interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.

ECONOMICS SUB-AREAS

GENERAL COURSES (Lower Division)

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ECON 2500. Principles of Economics I, 4 units
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ECON 2510. Principles of Economics II, 4 units

ECON 2950. Selected Topics in Economics, 1-5 units

ECONOMIC THEORY AND DOCTRINES

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ECON 3150. National Income Analysis, 3 units
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ECON 4000. Intermediate Theory (Macroeconomics), 3 units

ECON 4010. Economic Thought, 3 units

ECON 4200. Intermediate Theory (Microeconomics), 3 units

MONEY AND BANKING

ECON 3320. Money and Banking, 3 units

PUBLIC FINANCE AND FISCAL POLICY

ECON 4540. Public Finance and Fiscal Policy, 3 units

ECON 4550. Taxation and the American Economy, 3 units

ECON 5850. Seminar in Public Finance and Fiscal Policy, 3 units (see MPA Program in Public Administration)

LABOR ECONOMICS

ECON 4100. Labor Economics, 3 units

ECON 4110. Collective Bargaining in the Public Sector, 3 units

Economics

INTERNATIONAL ECONOMICS

ECON 4050. Comparative Economic Systems, 3 units

ECON 4400. Economic Development, 3 units ECON 4410. International Trade, 3 units

ECON 4420. Soviet Economics, 3 units

ECON 4430. International Economic Policies, 3 units

ECON 4450. Economic Planning, 3 units

ECONOMIC HISTORY

ECON 4150. Economic History of the United States, 3 units

ECON 4160. Economic History of Europe, 3 units

QUANTITATIVE ECONOMICS

ECON 3200. Quantitative Analysis I, 4 units

ECON 3210. Quantitative Analysis II, 4 units

ECON 4300. Mathematical Economics I, 3 units

GENERAL COURSES

ECON 4600. Urban Economics, 3 units

ECON 4950. Selected Topics in Economics, 1-5 units

COURSE DESCRIPTIONS .

Lower Division

ECON 2500. Principles of Economics I (4)

Macroeconomics; scope, method, economic resources, monetary system, income determination, economic stability-instability, public finance.

ECON 2510. Principles of Economics II

Microeconomics; price system and market structures, public policy and income distribution. Fundamentals of international economics; international trade, principles and problems of economic growth and development, analysis of economic systems. Special problem areas in American economy; urban economics, environmental economics, agricultural economics.

ECON 2950. Selected Topics in Economics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of economics. Topics may vary each term. Different topics may be taken for credit.

ECON 2970. Selected Topics offered during Winter Term (4)

Upper Division

ECON 3150. National Income Analysis (3)

Analysis of macroeconomic conditions and adjustments in a free enterprise system. National income accounting and employment theory. Prerequisite: Economic Principles or consent of instructor.

ECON 3200. Quantitative Analysis I (4)

Measurement and analysis of economic data, statistical inference, simple and multiple regression theory and its application, building of econometric models.

ECON 3210. Quantitative Analysis II (4)

Application of basic research tools and techniques, analysis of economic relationship, measurement and analysis of economic and business change.

ECON 3320. Money and Banking (3)

Money and the level of economic activity; supply and demand for money; competition among financial institutions; the Federal Reserve System and monetary policy. Prerequisite: Economic Principles or consent of instructor.

ECON 4000. Intermediate Theory (Macroeconomics) (3)

Macroanalysis; income levels, expenditures, prices, and employment; application to depression and inflation. Prerequisite: Economic Principles or consent of instructor.

ECON 4010. Economic Thought (3)

Survey and comparison of the ideas and doctrines of major schools of economic thought from the Middle Ages to the Twentieth Century, with emphasis on Classical and Neoclassical economics, Marxism, Institutionalism, and Keynesian economics.

ECON 4050. Comparative Economic Systems (3)

Capitalism and alternative economic systems; differences and comparative performance. Prerequisite: Economic Principles or consent of instructor.

ECON 4100. Labor Economics (3)

A study of theories of wage determination, income distribution, manpower imbalance, and economic problems of minority groups. History and theory of the American labor movement and theories of collective bargaining. Prerequisite: Economic Principles or consent of instructor.

Economics

ECON 4110. Collective Bargaining in the Public Sector (3)

General survey of employer-employee relations in the public sector. Particular attention paid to developments in public employee collective bargaining legislation and present state of the art of negotiations for conflict resolution in the public sector. Prerequisite: Principles of Economics or consent of instructor.

ECON 4150. Economic History of the United States (3)

Analysis of economic growth and development from colonial period to present; application of economic principles to the facts of history. (Formerly 311) Prerequisites: Economic Principles or consent of instructor; sophomore standing.

ECON 4160. Economic History of Europe (3)

Analysis of economic development from medieval period to present. Emphasis on the emergence and evolution of capitalism, the economics of imperialism, the industrial revolution and the European economic community. (Formerly 310) Prerequisite: Sophomore standing.

ECON 4200. Intermediate Theory (Microeconomics) (3)

Theory of the firm; contemporary theory of demand, supply, production, and costs; market price under monopoly, monopolistic competition, oligopoly, and pure competition; theory of factor prices. Prerequisite: Economic Principles or consent of instructor.

ECON 4300. Mathematical Economics (3)

Static analysis; comparative-static analysis; optimization problems, input-output analysis; linear programming and game theory. Prerequisite: Economic Principles or consent of instructor.

ECON 4400. Economic Development (3)

Economic development of contemporary less developed countries; trade, agriculture, industry, education, and industrial development problems; economic theories, and policy tools for case studies. Prerequisite: Economic Principles or consent of instructor.

ECON 4410. International Trade (3)

Pure theory of international trade, commercial policies, tariff issues and other trade restrictions, multinational corporations and foreign investment, international and regional trade organizations, U.S. trade with communist countries. Prerequisite: Economic Principles or consent of instructor.

ECON 4420. Soviet Economics (3)

Institutions and operating principles of the Soviet planned economy; economic performance to present; prospects for future.

ECON 4430. International Economic Policies (3)

Foreign exchanges and balance of international payments, international financial relations and institutions, fiscal and monetary policies designed to restore balance-of-payments equilibrium, U.S. balance-of-payments problems and European financial developments, proposals for reform in the international monetary systems. Prerequisite: Economic Principles or consent of instructor.

ECON 4450. Economic Planning (3)

Structure, methodology, and application of economic planning; decentralized \underline{vs} . centralized organization of economic activity; macroeconomic $\overline{planning}$ models. Prerequisite: Economic Principles or consent of instructor.

ECON 4540. Public Finance and Fiscal Policy (3)

Principles, problems, and policies of public expenditure, credit, debt, budgeting, and fiscal policy. Prerequisite: Economic Principles or consent of instructor.

ECON 4550. Taxation and the American Economy (3)

Principles, problems, policies of local, state, and federal taxation; economics, ethics, law, administration of the tax system; influence of tax policy on the economic system; state and federal income tax returns. Prerequisite: Economic Principles or consent of instructor.

ECON 4600. Urban Economics (3)

An analysis of the economic interdependency of markets in urban areas and possibilities for alternative resource use; land utilization patterns, urban transportation, labor markets, housing, and public service markets. Prerequisite: Economic Principles or consent of instructor.

ECON 4950. Selected Topics in Economics (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in economics. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Junior standing or consent of instructor.

Economics

ECON 4960. Senior Seminar (3)

Reading and discussion in significant areas of economics; analysis of major contemporary economic problems, national and international. Prerequisite: Senior standing in economics.

ECON 4970. Selected Topics offered during Winter Term (4)

ECON 4980. Individual Study (1-4)

For student capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Graduate

ECON 5850. Seminar in Public Finance and Fiscal Policy (3)

An analysis of budgetary process, expenditure policy, debt policy, intergovernmental fiscal relations, and taxation on the federal, state, local, and county levels of government. Prerequisite: Classified Graduate Standing in the M.P.A. Program. (See M.P.A. Program in Public Administration)

ECON 5980. Individual Study (1-4)

For student capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

ECON 5990. Thesis (3)

Thesis research. May be repeated for a total of 6 units. Prerequisites: Consent of instructor and approval of graduate adviser.

Richard V. Jones, Jr., Ed.D., Professor, Chairman
Joseph W. Corbin, Ed.D., Professor
Edward R. Credell, Ph.D., Professor
Charles R. Farrar, Ed.D., Professor
William F. McClintock, Ph.D., Professor
Haig A. Rushdoony, Ed.D., Professor
Priscilla R. Smith, Ed.D., Professor
Lorna M. Swain, Ed.D., Professor
Jack A. Graves, Ed.D., Associate Professor
R. J. Moriconi, Ed.D., Associate Professor
Lloyd R. Thompson, Ed.D., Associate Professor
Roy Y. Yasui, Ph.D., Associate Professor
Richard Prescott, M.A., Visiting Lecturer

The College, in addition to curricula in the liberal arts, offers professional programs in the Division of Education to prepare candidates for certification in elementary and secondary school teaching, reading, school supervision, and school counseling. Those students interested in teaching credential programs should make application to the Office of the Division of Education. Graduate programs leading toward a Master of Arts in Education with concentrations in elementary or secondary curriculum, supervision, or in school counseling are also available to qualified students. Those students interested in graduate degree programs should obtain information from the Division of Education Office. The College also offers specialized preparation for teachers in the area of the speech and hearing handicapped, as described in the Speech Communications section of this catalog, and in the area of learning handicapped as described in the Psychology section of this catalog.

Professional programs in education are designed to help students achieve those competencies which are essential to effective teaching within the range of services authorized by the respective teaching credentials. Credential programs include study of the purposes of American education, the nature of modern society, human growth and development, the learning process, and instructional materials and techniques applicable at successive educational levels. It is assumed that the student will also acquire a broad base of liberal arts preparation, including a major in a selected field of academic study. All credential programs are presently accepted by the California State Board of Education or the Commission for Teac her Preparation and Licensing in fulfillment of certification regulations.*

^{*}The California State Board of Education and the Commission are empowered to change credential requirements without prior notice. The College will make changes in programs leading to credentials whenever revisions are reported to it in the California Administrative Code, Title 5, Education, or by other official notifications.

TEACHING CREDENTIAL PROGRAM

California State College, Stanislaus is authorized to prepare students to teach in either the elementary or secondary levels. Under the Credentialing Law of 1972 (Ryan Act) these are the Multiple Subject Credential (elementary schools) and Single Subject Credential (secondary schools).

- I. MULTIPLE SUBJECT CREDENTIAL (ELEMENTARY TEACHING):
 - Requirements for a Multiple Subject Credential at California State College, Stanislaus, include the following:
 - 1.1 Completion of B.A. degree, with a major in Liberal Studies

or

Completion of any baccalaureate degree in any major, and a passing score on the State Approved Multiple Subject test.*

- 1.2 Completion of an approved Professional Education Program of 30 semester units.
- 1.3 Completion of an approved 30 semester unit post-baccalaureate program.
- 1.4 Two years of teaching experience in California public schools under standard certification.
- Advisement. Upon admission to the College, the student needs to plan a program of studies leading to a degree.
 - 2.1 The general advice to students interested in the Multiple Subject Credential is to enroll in the Liberal Studies degree program. The intent of the Credentialing Law is that elementary teachers should have a broad education, with at least 84 semester units distributed among the social sciences, math and sciences, arts and humanities, and English-speech. At California State College, Stanislaus, the Liberal Studies degree program satisfies this requirement and includes an area of concentration of 20 units in one area. Hence, by completing the Liberal Studies degree, the student meets the academic requirements of the law, completes most of a single subject major

^{*}The Commission on Teacher Preparation and Licensing has approved the National Teachers Exam, Common Area, for this test. The test is given at the College in November, January, April, and July. Details may be obtained from the Testing Officer, Office of Student Services, California State College, Stanislaus.

or an academic area of emphasis, and avoids the risk of attempting and failing the Commission's approved Multiple Subject test.

- 2.2 Liberal Studies degree students are referred to the Liberal Studies section of the catalog for this program.
- 2.3 Liberal Studies degree students should select their area of concentration so that it complements their professional goals, e.g., child development for early childhood education, or a teaching field if also interested in a single subject credential.
- 2.4 Students who elect other degree majors and who plan to take the Commission approved test should select their general education course work keeping the multiple subject areas of required competency in mind.
- 2.5 Cross cultural course work is strongly recommended; an advanced English composition course (ENGL 3000) is required.

II. SINGLE SUBJECT CREDENTIAL (SECONDARY TEACHING):

- Requirements for a Single Subject Credential at California State College, Stanislaus, include the following:
 - 1.1 Completion of a B.A. degree, with a Commission approved waiver major in the area the student is planning to teach.

or

Completion of any baccalaureate degree and a passing score on a State Approved Single Subject test* in one or more of the following areas:

- 1. English
- 2. Physical Sciences
- 3. Natural Sciences
- 4. Math
- 5. Social Sciences
- 6. History
- 7. Industrial Arts
- 8. Government

^{*}The Commission on Teacher Preparation and Licensing has approved the National Teachers Exam, Area tests, for these tests. Details may be obtained from the Testing Officer, Office of Student Services, California State College, Stanislaus.

- 9. Physical Education
- 10. Business
- 11. Music
- 12. Art
- 13. Home Economics *
- 14. Foreign Language
- 15. Agriculture *
- 1.2 Completion of an approved Professional Education Program of 30 semester units.
- 1.3 Completion of an approved 30 semester unit postbaccalaureate program.
- 1.4 Two years of teaching experience in California public schools, under standard certification.
- 1.5 Cross cultural course work is strongly recommended; an advanced English composition (ENGL 3000) is required.

III. ADMISSION TO AND CONTINUANCE IN PROFESSIONAL EDUCATION:

All students interested in teaching credentials should contact the Coordinator of Credentials or the Division of Education office early in their academic career.

- Students must apply and be accepted into a Credential Program prior to enrolling in professional education required courses.
- Application procedures for admission into a Credential Program include: an interview; letters of recommendation; transcripts (GPA minimum overall of 2.25 is required to apply;** Single Subject Credential applicants also need a 2.50 overall GPA in the teaching major); a statement of

^{*}These waiver majors are available at California State College, Stanislaus, except for Agriculture, Industrial Arts and Home Economics. Students completing these latter waiver majors elsewhere or successfully passing the Commission approved tests may apply for the CSCS Single Subject Credential Program.

^{**}Students with overall GPA below 2.25 but with better than a 2.50 GPA in the most recent 30 semester hours may apply.

intent emphasizing experience with students; and a covering application form. These forms are available in the office of the Credential Coordinator.

- 3. Students planning to complete student teaching before graduation need to seek admission to the Credential Program during the first semester of the junior year. Normally major requirements will be completed prior to the senior year.
- 4. Students planning to complete the Professional Education requirements after graduation need to seek admission during the last semester of their senior year.
- 5. In order to be considered, a completed application folder (transcripts, evaluations, etc.) must be filed with the Credentials Office no later than the following deadlines:

Semester to Start	Deadline	Expect Notification		
Spring 1976	October 15, 1975	November 15th		
Fall 1976	March 15, 1976	April 15th		

6. GPAs are reviewed each semester. Students will be disqualified if the upper division single subject GPA drops below 2.5. Once admitted to either credential program a GPA of 2.50 also must be maintained. No grades below "C" in required education courses are acceptable toward the credential.

IV. PROFESSIONAL EDUCATION REQUIRED PROGRAM:

1. Multiple Subject Credentials: (preliminary credential)

EDUC 3010. EDUC 3120. EDUC 3130.	Foundations of Elementary Education Elementary Curriculum & Instruction I . Elementary Curriculum & Instruction II	3	
EDUC 3250.			
	Total	12	

Units

	Units
EDUC 3810.	Elementary School Student Teaching I 4
*EDUC 4810.	Elementary School Student Teaching II . 8
	Total
	Total units required for preliminary
	recommendation

Consult the Multiple Subject Credential Program Coordinator to plan the Professional Education Sequence.

The typical student will enroll full time in education for the senior or graduate year as follows:

Begin Fall	Winter Term	Spring
**EDUC 3010 (3 **EDUC 3120 (3 **EDUC 3130 (3 **EDUC 3250 (3	3) 3)	**EDUC 4810*(8) EDUC 4840 (3) EDUC 3050 (2) Elective (1)
Begin Spring	Fall	Winter Term
EDUC 3010 (3		**EDUC 3810 (4)*
EDUC 3120 (3		*
EDUC 3050 (3 Elective (3	- /	

^{*}Prerequisites for final student teaching assignment: (a) completion of Liberal Studies waiver major or achievement of a passing score on the Commission approved test; (b) maintenance of a GPA of 2.5 in Professional Education and academic work while admitted to the Credential Program; (c) completion or concurrent enrollment in all program elements and consent of the Multiple Subject Credential Program Coordinator.

^{**}Courses required for the Preliminary Credential; others required for recommendation for the Clear Credential.

^{***} In this pattern, enrollment in EDUC 381 and 481 is actually concurrent, running through Fall and Winter terms, and no student teaching grades will be posted until both experiences are completed. Assignments will change during the Fall Semester.

2.	Single	e Subject	Credentials:	(preliminary	credent	
		7000 7	1			Units
*\$			undations of Se e Secondary Scl			
			rriculum & Ins			3
	LDOG .	J100. Ga	Selected Sub		j	
or		PE 3190.	Curr. & Instr	: Physical Ed		3
or			4600. Curr.			
or			3370. Curr. &			7
	£DUC :	34/U. Rea	ading in Secon	dary Schools		3
	7	Total				12
	EDUC S	3820. Se	condary School	Student Teac	hing I	4
	*EDUC		condary School			
or			·		•	
	*EDUC 4	1860. Se	condary School	Student Teac	hing .	12
	7	ľotal				<u>12</u>
	•	rotal uni	ts required for	r Preliminary		
		rec	ommendation .			24
Con	sult th	ne Single	Subject Crede	ntial Program	Coordin	ator to
			nal Education			
TT	 : a.	. 1	t will appell	G.11 time in		. for
ine			t will enroll : graduate year :		education	101
	CITO 5	J101 01	gradate year			
Beg	gin					
Fal			Winter Term		ing	
**EDU	JC 3020 JC 3150	*(3)	**EDUC 3820 (•		(8)
**EDI	JC 3130 JC 3470	(3)				(3) (3)
EDU	JC 3050	(2)		or	0 0100	(0)
	ective	<u>(1)</u>	_	equ	ivalent	
		12		4		14
Sta	ırts					
	ring		<u>Fall</u>		ter Term	
	JC 3020		**EDUC 4820*(C 3820	(4)
	JC 3150 JC 3470		**EDUC 3160 (or equival			
	IC 3050		EDUC 4940 (

elective

elective (1)

^{*}Prerequisites for final student teaching assignment: (a) completion of Single Subject waiver major or attainment of a passing score on the Commission's approved test; (b) maintenance of a GPA of 2.5 in Professional Education and academic work while admitted to Credential Program; (c) completion or concurrent enrollment in all program elements and consent of the Single Subject Credential Program Coordinator.

^{**}Courses required for the Preliminary Credential; others required for recommendation for the Clear Credential.

V. FIFTH YEAR REQUIREMENTS: (Clear Credential)

Students may choose to complete either no Professional Education course work within the four-year baccalaureate program, part of their Professional Education, or all of their Professional Education Program. All students, however, must complete an approved fifth year* totaling 30 semester units, post B.A./B.S., in order to qualify for the Clear Credential.

1. In order to be recommended for the Clear Multiple Subjects or Single Subject Credential through California State College, Stanislaus, students are required to complete the following course work in Education in addition to the 24 units for the Preliminary Credential:

		Ų	mres
EDUC 3050.	School Health Programs		. 2
EDUC 4840.	Seminar: Analysis & Strategies		
	of Teaching		3
	Electives, by advisement		25
	Minimum Education Total		30

ADVANCED CREDENTIALS (RYAN)

SPECIAL EDUCATION: LEARNING HANDICAPPED

In cooperation with the Psychology Department, the Division of Education offers curriculum and instruction and student teaching leading to the Specialist Credential for the Learning Handicapped: see Psychology Section of this catalog for the program description. Standard teaching certification is a prerequisite to special education student teaching. Admission information and advisement are obtained through both Education and Psychology.

SPECIAL EDUCATION: COMMUNICATION HANDICAPPED

See the Speech Department for program advisement. Students seeking a teaching credential along with the Communication Handicapped Specialist credential will obtain advisement through both Speech and Education.

READING SPECIALIST CREDENTIAL

Elementary or secondary experience under standard certification and intensive and extensive experience in reading at the K-12 level are required for admission to this program. The program totals 30 hours of course work and field experience. See Division of Education Office and the Reading Specialist Credential

^{*}A Credential Coordinator will advise students in the Fifth year program following student teaching. An approved program is course work leading to a specified professional goal, such as an advanced credential, an M.A. degree, or an additional teaching major.

Coordinator for admission information and advisement. The Masters Degree, in Curriculum and Instruction-Reading, is optional.

Courses required:

- (1) EDUC 4050. Reading Skills: Assessment & Evaluation
- (3) EDUC 3250. Reading in the Elementary School or EDUC 3470. Reading in the Secondary School
- (4) EDUC 4100. Improving Reading: K-12
- (2) EDUC 4240. Reading Instruction in the Primary Grades
- (2) EDUC 4250. Reading Instruction in the Intermediate Grades
- (3) EDUC 5250. Reading Diagnosis and Remediation
- (3) EDUC 5350. Research & Trends in Reading & Language Arts
- (3)+(3) EDUC 5910. Reading Improvement Center
- (3) SPCH 3000. Phonetics
- (3) ENGL 4620. Children's Literature

30 units

PUPIL PERSONNEL SERVICES CREDENTIAL: SCHOOL COUNSELING

This program is particularly designed for teachers; teacher training course work is part of the program. Requirements include Standard Elementary or Secondary certification, the M.A. in Education in School Counseling, a minimum of 64 semester hours, overall in professional field work and course work, and counseling field experiences at the elementary and secondary levels, as well as career guidance centers.

Undergraduates who complete Psychology course work and teaching credential requirements before earning the B.A. may complete the M.A. and School Counseling Program in less than 40 post B.A. hours. See the Division of Education and the School Counseling Credential Coordinator for admission information and advisement.

The course work to meet Ryan requirements (in addition to the minimum 24 hours Multiple Subjects or Single Subject Credential prerequisite program) is as follows:

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PSYC 3790.
           Introduction to Counseling Theory (3)
PSYC 4770.
           Introduction to Counseling Techniques (3)
EDUC 5010.
           Education in Society (3)
EDUC 5050.
           Methods of Research in Education
EDUC 5060.
           Theories of Instruction (3)
EDUC 5520. Legal & Financial Aspects of Education (3)
EDUC 5530. Testing in Education (3)
EDUC 5540.
           Exceptional Children and Youth (3)
EDUC 5570.
           Counseling & Guidance in Education
EDUC 5600.
           Family Counseling & Community Resources (3)
EDUC 5610.
           Educational & Occupational Information (3)
EDUC 5640.* The Counselor
                          (3)
EDUC 5760.
           Pupil Personnel Services Seminar
           Field Work: School Counseling (2)+(2)+(2)
EDUC 6940.
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^{*}May substitute, by advisement, for PSYC 4770

ADMINISTRATIVE SERVICES CREDENTIAL

The program is designed to prepare students for their initial administrative or supervisory assignments at the Masters level of proficiency. Requirements include successful teaching experience and completion of the M.A. in education in Administration--Supervision. The course work leads to either the Fisher or Ryan type Credential (field work varies). According to Fisher regulations, "If the post graduate degree is not an academic subject matter area, twelve (12) semester hours of post graduate course work in an academic subject matter area or areas is required." In contrast, Ryan candidates must attain a passing score on the Commission's Multiple Subjects Credential approved test. See the Division of Education office and the Administrative Services Credential Coordinator for admission information and advisement.

The course work to meet Ryan requirements is as follows:

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EDUC 5010.
           Education in Society (3)
EDUC 5040.
           Philosophy of Education (2)
           Methods of Research in Education (3)
EDUC 5050.
EDUC 5060.
           Theories of Instruction (3)
EDUC 5310.
          Curriculum Planning & Development (3)
EDUC 5500. Organization of Public Education (2)
EDUC 5510.
           Supervision of Instruction (3)
EDUC 5520.
          Legal & Financial Aspects of Education
EDUC 5550. Administration of Individual School
EDUC 5560. Educational Leadership (2)
EDUC 6940.
           Field Work: Supervision (2) + (2)
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MASTER OF ARTS IN EDUCATION

The Master of Arts in Education is designed to meet the professional growth needs of school professionals. Course work is offered late afternoons and evenings. Concurrent programming is offered for the Administrative Services, School Counseling, and Reading Specialist advanced credentials. The masters program may be completed in one of three areas of specialization:

(1) Curriculum & Instruction (Elementary, Secondary, and Early Childhood Education); (2) Supervision & Administration; and (3) School Counseling. The program requires each candidate to

(3) School Counseling. The program requires each candidate to complete one of the following: a thesis or project, three approved masters papers, or a comprehensive examination. Each M.A. student is also required to pass an oral examination.

Programming worksheets which outline required and elective course work for each specialization may be obtained in the Division of Education Office. Preadmission screening data must be filed with the Division well in advance of registration in order that the Division of Education may select the students to be admitted under existing quotas.

Applicants should contact the Division of Education for descriptive materials concerning admission procedures and advisement.

Prior to admission as a Pre-Candidate in the Education M.A. Program, the applicant will submit the following:

- Completed CSCS Application Form (Admissions & Records 'Office).
- 2. A Declaration of Intent (to pursue the M.A. Program).
- Two letters of recommendation from (1) a supervisor,
 (2) a college professor.
- A vita or resume which summarizes the candidate's educational background and professional experience.
- 5. Transcripts from all colleges attended.
- 6. A recent snapshot. (Desired but not mandatory)

Upon the completion of approximately eight semester units of course work and the Graduate Record Examination, the pre-candidate will be reevaluated for acceptance to full graduate standing.

In addition to the written and oral requirements (above), the student is required to complete at least 30 units of required and elective units for the degree. Further, students must maintain a minimum GPA of 3.0 in all graduate work in the program. Listed below are course requirements for each of the three areas of specialization in the M.A. program. Students seeking advanced credentials normally will elect credential requirements to complete the M.A. program. Students seeking the M.A. only may elect more broadly. It should be noted, however, that the specific course requirements for the individual student will be determined through advisement.

Curriculum & Instruction (Elementary, Secondary, or Early Childhood Education)

One from: EDUC 5010, 5020, 5030, 5040

Required: EDUC 5050, 5060, and 9-15 semester units in

Curriculum & Instruction

Electives on advisement, including EDUC 5990

School Counseling

One from: EDUC 5010, 5020, 5030, 5040

Required: EDUC 5050, 5530, 5540, 5570, 5600, 5760, PSYC 3790

Electives on advisement including EDUC 5990

Administration & Supervision

One from: EDUC 5010, 5020, 5030, 5040

Required: EDUC 5050, 5060, 5310, 5500, 5510, 5550, 5560,5720

Electives on advisement including EDUC 5990

COURSE DESCRIPTIONS

Lower Division

EDUC 1000. Participation in Tutoring (1)

Consideration of the role of the tutor and the teacher in the school. Values and limitations of various learning situations. May be repeated for a total of 3 units. Prerequisites: Good academic standing and T.B. clearance.

EDUC 2000. Introduction to Education (2)

An overview of the field of education and the responsibilities of teaching. Designed for students contemplating entrance into the field of teaching at the elementary, secondary, or college level, and for others who desire a general overview of education in the U.S. Recommended but not required in the credential program. Prerequisites: Good academic standing and T.B. clearance.

EDUC 2950. Selected Topics in Education (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of education. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

EDUC 2970. Selected Topics offered during Winter Term (4)

Upper Division

EDUC 3000. The Instructional Aide (2)

Observation and participation in an educational setting as an instructional or teacher aide; practices related to working with children and youth, especially recommended for students interested in teaching. May be repeated for a total of 4 units credit. Prerequisites: T.B. clearance, good academic standing, and consent of instructor.

EDUC 3010. Foundations of Elementary Education (3)

Study of selected sociologically and psychologically based knowledge, skills, and understandings related to teaching in the elementary schools. (Formerly 411 & 412) Prerequisites: Admission to the credential program and junior or higher standing. EDUC 2000 & 3000 recommended.

EDUC 3020. Foundations of Secondary Education (3)

Study of selected sociologically and psychologically based

knowledge, skill, and understandings related to teaching in the secondary schools. Prerequisites: Admission to the credential program and junior or higher standing. EDUC 2000 § 3000 recommended.

EDUC 3030. Ethnic Groups in Public Education (2)

Sociological study of selected ethnic groups in American public education; consideration of characteristics, trends, problems and general instructional implications. (Formerly 414) Prerequisite: Junior standing.

EDUC 3050. School Health Programs (2)

Nature and scope of health education as outlined in the Framework for Health Instruction in California Public Schools, K-12, current problems related to individual, family, and community health education. Prerequisites: EDUC 3010 or 3020, and consent of credential adviser.

EDUC 3120. Elementary Curriculum & Instruction I (3)

Introduction to the skill subject of language arts and mathematics. Emphasis on communication skills: speaking, listening, reading, and writing in the multiple subjects classroom. Emphasis given to developing skills for the teaching of mathematics. Prerequisites: Consent of instructor, admission to credential program.

EDUC 3130. Elementary Curriculum & Instruction II (3)

Teaching concepts and applications emphasizing social studies and science in multiple subjects grades instructional planning, demonstrations, and materials based on modern strands and techniques. Prerequisite: EDUC 3010 or equivalent, or consent of credential adviser.

EDUC 3150. The Secondary School Program (3)

Introduction to teaching in single subject classrooms. The purposes of secondary education, scope of the instructional program, current trends and practices. Analysis of educational practices appropriate to culturally different groups. Prerequisites: EDUC 3020 and consent of credential adviser.

EDUC 3160. Curriculum & Instruction: Selected Subjects (3)

Preparation for teaching in major and minor fields; analysis of current trends and practices. Review of courses of study and instructional materials; use of instructional techniques and evaluation. Prerequisites: EDUC 3020 and consent of credential adviser.

EDUC 3190. Curriculum & Instruction: Physical Education (3)

Preparation for teaching physical education in the single subject classroom. Current trends and practices, instructional materials and techniques. Prerequisite: EDUC 3020 or equivalent, consent of credential adviser, or teaching experience. (Same as PHED 3190)

EDUC 3200. Curriculum & Instruction: English (3)

Contemporary trends in English education. Curriculum development, selection, and organization of materials and procedures for the single subject classroom. Field observations. (Formerly 453) Prerequisite: Consent of credential adviser or teaching experience. (Same as ENGL 4610)

EDUC 3220. Curriculum and Instruction: Music (3)

Contemporary trends in music education in the secondary school. Curriculum development, selection and organization of materials, teaching techniques. Prerequisites: Consent of credential adviser and instructor. (Same as MUS 3370)

EDUC 3250. Reading Instruction in the Elementary School (3)

Includes an understanding of the principles and practices of reading (K-6) and its relation to the language arts; various approaches to reading; development of reading lessons; word analysis skills, including phonics; manipulative aids in reading. (Formerly 425) Prerequisite: Consent of credential adviser.

EDUC 3360. Instructional Media (2)

Use of libraries, instructional materials centers, and audiovisual materials and equipment. Preparation and evaluation of instructional materials. (Formerly 436) Prerequisite: Admittance to credential program or teaching experience.

EDUC 3470. Reading in Secondary Schools (3)

Selection and organization of materials; instructional procedures for the developmental reading programs (7-12), reading and the content subjects; analysis of research concerning reading needs. (Formerly 447) Prerequisite: Admission to credential program, or consent of instructor.

EDUC 3810. Elementary School Student Teaching I (4)

Supervised observation-participation and student teaching in public elementary school settings. Includes a weekly oncampus meeting dealing with legally required instruction in elementary schools, the structure of public education, and

student teaching problems. CR or NC grade is given. (Formerly 441) Prerequisites: EDUC 3010 or equivalent, and one curriculum course. (May be taken concurrently)

EDUC 3811. Multiple Subject Credential Student Teaching (8)

Supervised student teaching in multiple subject classrooms. Includes weekly on-campus seminars. Restricted to Special Education Credential candidates. EDUC 4870 or 4 additional units of student teaching must be earned before recommendation to the Preliminary Credential. Prerequisite: Elementary Coordinator's approval.

EDUC 3820. Secondary School Student Teaching I (4)

Supervised observation-participation and student teaching in public secondary school settings. Includes a weekly seminar dealing with methodology, materials of instruction, and problems encountered in student teaching experiences. CR or NC grade is given. (Formerly 460) Prerequisite: Consent of credential adviser.

EDUC 4000. The Counselor Aide (2)

The role of the counselor's assistant in the public schools for students who desire an introductory experience in counseling under professional supervision. A regular assignment at times convenient to the student as a counselor aide. Medical clearance required. Prerequisites: Upper division or graduate standing, and consent of instructor.

EDUC 4050. Reading Skills Assessment (1)

Evaluation of student's capabilities in the area of reading instruction. Designed only for those interested in the Reading Specialist Credential. Prerequisites: One full year of credentialed teaching including the teaching of reading, and consent of instructor.

EDUC 4100. Improving Reading: Grades K-12 (4)

Teaching of analysis of children's reading patterns, individualizing; grouping; production and use of materials in skills development; correlation of phonics as part of reading developmental program. Includes 50 hours of directed field experiences in reading. Prerequisites: EDUC 3250 or equivalent, or consent of instructor.

EDUC 4120. Seminar: Diagnostic Teaching (3)

Methods of diagnosing student difficulties and prescribing remediation in terms of instruction and curriculum. Performance based instruction evaluation. Prerequisite: EDUC 4810 or 4820, or consent of credential adviser.

EDUC 4200. Teaching the Culturally Different (3)

Principles of adapting school instructional materials and programs to the particular needs and interests of children of minority ethnic groups. Identification of suggested teaching competencies. Includes selected field experiences. (Formerly EDUC 422) Prerequisite: Upper division standing.

EDUC 4210. Outdoor Education (2)

Introduction to outdoor teacher education, with appropriate teaching procedures and instructional materials. Includes one weekend directed outdoor school field experience. (Formerly EDUC 434) Prerequisite: One curriculum course.

EDUC 4230. Principles of Early Childhood Education (3)

An analysis of the early childhood education program from its beginning to today. An overview of the relationships among the school, the child, and the home. Prerequisite: Consent of instructor.

EDUC 4240. Reading Instruction in the Primary Grades (2)

Emphasis on all aspects of reading readiness, including methods and materials; techniques of beginning reading, including language experience. (Formerly 437) Prerequisite: EDUC 3250 or 4100 or equivalent, or consent of instructor.

EDUC 4250. Reading Instruction in the Intermediate Grades (2)

Emphasis on reading to learn, particularly reading-study skills; individualized instruction; extension of reading concepts. (Formerly 438) Prerequisite: EDUC 3250 or 4100 or equivalent, or consent of instructor.

EDUC 4260. Improving Elementary Social Studies (3)

Current practices, trends, and concepts in today's elementary social studies. Planning, developing, and evaluating group and individualized programs. Prerequisite: Teaching credential or consent of credential adviser.

EDUC 4270. Improving Elementary Language Arts (3)

Current practices, trends and concepts in today's elementary language arts. Planning, developing and evaluating group and individualized programs. Prerequisite: Teaching credential or consent of credential adviser.

EDUC 4280. Improving Elementary Mathematics (3)

Current practices, trends and concepts in today's elementary mathematics. Planning, developing and evaluating group and individualized programs. Prerequisite: Teaching credential or consent of credential adviser.

EDUC 4290. Improving Elementary Science (3)

Current practices, trends and concepts in today's elementary science. Planning, developing and evaluating group and individualized programs. Prerequisite: Teaching credential or consent of credential adviser.

EDUC 4300. Health & P.E. in Elementary Schools (2)

Purposes, materials, activities, and techniques applicable in elementary school health and physical education. Prerequisite: EDUC 3010 or equivalent, or consent of instructor.

EDUC 4310. Observation-Participation and Curriculum and Instruction in Special Education (4)

Introduction to teaching children with disabilities; emphasis upon directed observation-participation field work. Introduction to assessment, evaluation and prescription, theory, and practice. Prerequisites: Admission to Credential Program and consent of special education adviser.

EDUC 4320. Curriculum and Instruction: Learning Handicapped (4)

Advanced concepts, strategies programs, issues, and research in the teaching of learning handicapped children. Working with Special Education students in various types of classrooms. Prerequisites: EDUC 4310, EDUC 3811, or EDUC 4820, and consent of special education adviser.

EDUC 4810. Elementary School Student Teaching II (8)

Supervised observation, participation and student teaching in public elementary school settings. Includes a weekly on-campus seminar meeting dealing with professional ethics and activities, use of audio-visual equipment and student teaching problems. CR or NC grade is given. (Formerly 442) Prerequisites: EDUC 3810 and two curriculum courses (one may be taken concurrently)

EDUC 4820. Secondary School Student Teaching II (8)

Supervised observation-participation and student teaching in public secondary schools. Includes weekly seminars dealing with instructional evaluation and problems encountered in student

teaching experiences. CR or NC grade is given. (Formerly 461) Prerequisites: EDUC 3820 or equivalent, and consent of credential adviser.

EDUC 4830. Student Teaching, Outdoor Education (2)

Directed observation-participation and student teaching of sixth graders for one school week out-of-doors at a selected campsite; includes on-campus pre-outdoor and post-outdoor teaching meetings. (Formerly 444) Prerequisites: EDUC 4210 and consent of credential adviser.

EDUC 4840. Seminar: Analysis & Strategies of Teaching (3)

Analytical methods used to study the instructional process. Investigation theories and methods in instructional analysis. Emphasis on strategies of teaching. Prerequisite: EDUC 4810 or 4820 or equivalent, or consent of credential adviser.

EDUC 4860. Secondary School Student Teaching (12)

Supervised observation-participation and student teaching in public secondary school settings. Includes a weekly seminar dealing with methodology, materials of instruction, and problems encountered in student teaching. CR or NC grade is given.

Prerequisite: Consent of credential adviser.

EDUC 4870. Student Teaching: Learning Handicapped (8)

Supervised student teaching in the Learning Handicapped special classroom teaching. Weekly seminars. Prerequisites: EDUC 432 and consent of credential adviser.

EDUC 4950. Selected Topics in Education (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in education. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

EDUC 4970. Selected Topics offered during Winter Term (4)

EDUC 4980. Individual Study (1-4)

For qualified undergraduate students in need of specialized study not available through the regular programs. Request for individual study must be presented to the chairman of the Division of Education prior to registration. May be repeated for a total of 6 units. Prerequisites: Divisional approval and consent of instructor.

Graduate

EDUC 5010. Education in Society (3)

Study of social forces influencing the educative process, the curriculum and institutional and professional roles in American public education. Analysis of characteristics, and problems of ethnic groups in school and society. Prerequisites: Teaching credential and consent of graduate adviser.

EDUC 5020. History of Education (2)

History of education, western and United States, emphasizing the use of historical data and methods in interpreting problems and issues in public education. Prerequisite: EDUC 3010 or 3020 or equivalent, or consent of instructor. Teaching experience recommended.

EDUC 5030. Comparative Education (2)

Study of representative national educational programs, emphasis on the political, social, and economic determinants. and contemporary issues and trends. Prerequisite: EDUC 3010 or 3020 or equivalent, or consent of instructor. Teaching experience recommended.

EDUC 5040. Philosophy of Education (2)

Modern philosophies of education and their significance for contemporary educational practices. Recommended for experienced elementary and secondary teachers; a required course in advanced credential programs. Prerequisite: EDUC 3010 or 3020 or equivalent, or consent of instructor. Teaching experience recommended.

EDUC 5050. Methods of Research in Education (3)

Application of methods of research to problems in education. Emphasis on research methodology of the social and behavioral sciences. Prerequisite: EDUC 3010 or 3020 or equivalent, or consent of instructor. Teaching experience recommended.

EDUC 5060. Theories of Instruction (3)

Analysis and evaluation of instructional theories as they apply to the classroom. Study of human learning as applied in the public schools. Prerequisite: EDUC 3010 or 3020, or consent of instructor. Teaching experience recommended.

EDUC 5230. Curriculum in Early Childhood (3)

A study of early childhood curriculum class organization, methods, and materials. Prerequisite: EDUC 3010 or consent of instructor.

EDUC 5250. Reading Diagnosis & Remediation (3)

Understanding and correcting reading difficulties; use of procedures in preventing reading retardation; selecting and developing materials; making use of informal inventories; critiquing clinical and corrective techniques; analysis of research in these two areas. (Formerly 520) Prerequisites: EDUC 3250, or 4100, teaching experience, and consent of instructor.

EDUC 5300. Individualizing Instruction (2)

Developing instructional plans, instructional materials, and learning strategies to implement individualized instruction. Analysis and evaluation of individualized systems. Prerequisite: Teaching experience or consent of instructor.

EDUC 5310. Curriculum Planning & Development (3)

Analysis of models in curriculum development; systematic planning for curriculum improvement; behavioral objectives. (Formerly 564) Prerequisite: Teaching experience or consent of instructor.

EDUC 5320. New Developments in Education (2)

Evaluation of new developments in elementary and secondary education; philosophical bases, organizational structure, curriculum innovations, instructional materials and methodology. (Formerly 587) Prerequisite: Teaching experience or consent of instructor.

EDUC 5330. Research and Trends in Math, Science and Social Studies K-12 (3)

Analysis and Evaluation of K-12 curriculum with emphasis on math, science, and social studies: selected topics for extensive and intensive study. Prerequisites: Curriculum course work at the 4000 or 5000 level and permission of graduate adviser.

EDUC 5350. Research and Trends in Reading & Language Arts K-12 (3)

Review of research literature in reading and language arts; indepth analysis of one or more related topics. Evaluations of trends. Prerequisites: EDUC 3250 or EDUC 3470, and permission of instructor.

EDUC 5500. Organization of Public Education (2)

Study of organizational concepts and practices in the public schools; legal bases for schools; financial planning and budget systems. Analysis of administrative theory. (Formerly 561) Prerequisite: Teaching experience or consent of instructor.

EDUC 5510. Supervision of Instruction (3)

Techniques and practices used in school supervision; selection, placement, and evaluation of school personnel; analysis of personnel administration. (Formerly 562) Prerequisite: Teaching experience or consent of instructor.

EDUC 5520. Legal and Financial Aspects of Education (3)

Legal principles related to education as defined by laws and judicial interpretations, with special reference to the Education Code of California. Introduction to financing and budgeting systems. (Formerly 580) Prerequisite: Consent of instructor.

EDUC 5530. Testing in Education (3)

Measurement and evaluation in education; techniques of test construction for classroom and school use; statistical aspects of testing; selection and use of standardized tests with emphasis on a typical student. Introductory course for M.A. and credential programs. (Formerly 575) Prerequisite: Consent of credential adviser.

EDUC 5540. Exceptional Children & Youth (3)

Physical, intellectual, social and emotional deviations among children and youth; community resources, educational adjustments. (Formerly 576) Prerequisite: Consent of instructor.

EDUC 5550. Administration of Individual Schools (2)

An analysis of personnel processes and utilization of appropriate materials and procedures to promote staff development; an analysis of specific school programs; an exploration of basic principles in administration appropriate for elementary and secondary administration and supervision. Prerequisites: Admittance to the administration-supervision credential program and consent of instructor.

EDUC 5560. Educational Leadership (2)

Analysis and practices of leadership skills; a study of various types of leadership; techniques employed in the development of positive relations in the school. (Formerly 563) Prerequisite: Consent of graduate adviser.

EDUC 5570. Counseling & Guidance in Education (2)

Roles function and responsibility of the school counselor. Relationships with school personnel and community agencies. Emphasis upon working with the culturally different student. Theory, practice and trends. (Formerly EDUC 577) Prerequisite: Teaching experience or consent of credential adviser.

EDUC 5600. Family Counseling & Community Resources (3)

Dynamics of relationships of family, community, and school; community-wide services; agency-school relationships; family visiting, including conferences, interviews, and referrals. (Formerly 532) Prerequisite: Consent of instructor.

EDUC 5610. Educational & Occupational Information (3)

Sources of occupational information; community and nationwide surveys; job analysis; procedures for relating vocational and self-information. Emphasis on meeting needs for school counselors in the area of career guidance. (Formerly 581) Prerequisite: Consent of instructor.

EDUC 5640. The Counselor (3)

Focus on the person as counselor, the becoming self of the counselor, his personal identity and integrity, and his authentic response to role conflict situations. The course is designed for people who (1) have had successful teaching experience, and (2) are enrolled in a counseling credential program or are practicing counselors, supervisors, or administrators. Prerequisites: Graduate standing and consent of instructor.

EDUC 5720. Seminar in School Supervision & Administration (2)

Case study analysis of practical problems in school administration and supervision. Open to practicing principals, supervisors, consultants, and students nearing completion of the supervision M.A. program. (Formerly 583) Prerequisite: Consent of graduate adviser.

EDUC 5750. Seminar in Reading Research (2)

Investigation and review of research and writings in reading; student must select one topic for in-depth analysis. (Formerly 525) Prerequisite: EDUC 3250 or 3470 or 4100, or equivalent, teaching experience, or consent of instructor.

EDUC 5760. Pupil Personnel Services Seminar (2)

Current practices in pupil personnel services. Organization and administration of pupil personnel services. Open to practicing personnel and students nearing completion of the M.A. in counseling program. (Formerly 535) Prerequisite: Consent of instructor.

EDUC 5770. Seminar in Elementary and Secondary Education (2)

Analysis and evaluation of interrelationships among content, purposes, organization, policies, and practices in contemporary

elementary and secondary schools. Prerequisites: Enrolled in final semester of graduate program; permission of graduate adviser.

EDUC 5780. Seminar for Student Teaching Supervisors (2)

Seminar in student and beginning teacher supervision; principles and practices. Techniques of performance evaluation.

Prerequisites: Clear California teaching credential, teaching experience, and consent of instructor.

EDUC 5910. Field Work: Reading Improvement Center (3)

Study of techniques of reading diagnosis and prescription for selected students. In addition to class sessions, each student will be assigned an elementary pupil with whom to work in the Reading Improvement Center (at least 2 hours per week). May be repeated for a total of 6 units. Prerequisites: EDUC 5250 or equivalent, and consent of instructor.

EDUC 5950. Selected Topics in Education (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in education. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

EDUC 5970. Selected Topic's offered during Winter Term (4)

EDUC 5980. Individual Study (1-4)

For classified graduate students in need of advanced and specialized study related to a thesis. Prerequisites: Approval of student's graduate committee and consent of instructor. May be repeated for a total of 6 units.

EDUC 5990. Thesis or Project (2)

This enrollment involves individual consultation in the preparation of a masters thesis or project. May be repeated for a total of 4 units. Prerequisites: Approval of student's graduate committee and consent of instructor.

EDUC 6940. Field Work - Supervision (2-4)

Actual work experience in the field for which student is seeking credential. Joint supervision by district and college personnel.

EDUC 6941. Field Work - School Counseling (2-4)

Actual work experience in the field for which student is

seeking credential. Joint supervision by district and college personnel.

EDUC 6970. Selected Topics offered during Winter Term (4)

EDUC 6980. Individual Study (1-4)

For qualified graduate students in need of advanced or specialized study. Requests for individual study must be presented to the chairman of Division of Education 6 weeks prior to registration. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

English and Foreign Languages

James P. Jensen, Ph.D., Professor of English, Chairman
Lawrence D. Berkoben, Ph.D., Professor of English
Joseph Brewer, Ph.D., Professor of English
Lola V. Johnson, M.A., Associate Professor of English
Gerhard Mack, Ph.D., Associate Professor of German
Paul P. Reuben, Ph.D., Associate Professor of English
Douglas H. Taylor, Ph.D., Associate Professor of English
Robert K. Anderson, Ph.D., Assistant Professor of Spanish
John E. Carroll, Ph.D., Assistant Professor of French
Jerry Clinton O'Dell, Ph.D., Assistant Professor of French
Jerry Clinton O'Dell, Ph.D., Assistant Professor of English
Gisela DeTadlock, M.A., Assistant Professor of Spanish
Jack W. Williams, M.A., Assistant Professor of English
Alice F. Worsley, Ph.D., Assistant Professor of English

The Department of English and Foreign Languages offers the degrees: Bachelor of Arts, English; Master of Arts, English; Bachelor of Arts, French; Bachelor of Arts, Spanish; and degree minors in English, French, German, and Spanish. Courses are offered in language, literature, and criticism, and are designed not only to familiarize the student with a body of knowledge and learning, but also to prepare and encourage him to make informed and independent critical evaluations.

Although most courses in language and literature fulfill college-wide needs regardless of the student's major field, they also provide preparation for various professions. Certain courses are indispensable for a proper grounding in the various programs of the department, but beyond these the student encounters a wide selection of courses during his career.

REQUIREMENT FOR BACHELOR OF ARTS, ENGLISH

English majors are to:

- 1. Complete the requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- Complete the major of not less than 33 upper division units; of these, no more than 11 units of CR graded course work may apply toward the major.
- 4. Complete a minor to be selected in consultation with the major adviser, or complete 18 units of course work in addition to the General Education requirements to be selected in consultation with the major adviser. These units must be taken outside the English program and should be demonstrably relevant to the study of literature and language.
- Consult with the major adviser during each advising period concerning requirements, changes in curriculum, waivers, etc.

English and Foreign Languages

DEGREE MAJOR IN ENGLISH

Prerequisites to the Major:
ENGL 1000. English Composition, 3 units ENGL 1010. Introduction to Literature, 3 units ENGL 2010. Critical Approaches to Literature, 3 units
The Major Units
Students are expected to demonstrate proficiency in Advanced Composition
Completion of 30 units in upper division English courses as approved by the major adviser, to include at least one course from each of the areas listed below
 A major author (e.g. Shakespeare, Chaucer, Whitman)
2. A genre study (e.g. The Novel, The Film, The Epic) 3. English literature before 1800 4. English literature after 1800 5. American literature
Total
DEGREE MINOR IN ENGLISH
Eighteen units, to include at least 10 upper division units.
Lower Division
ENGL 1000. English Composition, 3 units ENGL 1010. Introduction to Literature, 3 units
Upper Division
Completion of a minimum of 10 upper division units in English as approved by the minor adviser.
TEACHING CREDENTIALS
English majors interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.
LIBERAL STUDIES CONCENTRATION IN ENGLISH
ENGL 3000. Advanced Composition
Total

For a student preparing to take the multiple subject credential, the following courses would be particularly appropriate for the concentration. (No course may be double counted for both area requirements and the concentration.)

ENGL 3010. Creative Writing Workshop, 3 units
ENGL 3050. Introduction to Cinema, 3 units
ENGL 3100. Studies in English Literature to 1800, 3 units
ENGL 3200. Studies in English Literature after 1800,
3 units
ENGL 3300. Studies in American Literature, 3 units
ENGL 3400. Studies in Major Authors, 3 units
ENGL 3500. Genre Studies, 3 units
ENGL 3700. Studies in Minority Literature, 3 units
*ENGL 3800. Introduction to Linguistics, 4 units
*ENGL 3810. Introduction to Historical Linguistics, 3 units
ENGL 3820. American English Dialects, 3 units
ENGL 3930. Studies in World Literature in Translation,
2-5 units

*ENGL 4600. Tutorial Projects in English, 3 units
*ENGL 4620. Children's Literature, 3 units
*ENGL 4630. Adolescent Literature, 3 units

MASTER OF ARTS DEGREE IN ENGLISH

Applications for admission to the Master of Arts program in English and for advancement to candidacy should be filed in the office of the Department of English and Foreign Languages. Each student may select either the Thesis or the Non-Thesis Programs described below.

Prerequisites for Admission to the General Program:

- 1. B.A. degree with a major or minor in English
- 2. Undergraduate GPA of 3.0 in English courses.

REQUIREMENTS FOR THE MASTER'S DEGREE

- Completion of at least 30 units to include the following:
 - A. ENGL 5000. Seminar: Graduate Studies in English, 5 units
 - B. Minimum of 15 units to be completed from among seminars in the following subject areas: **
 ENGL 5100. Seminar: 'Medieval Literature, 4 units
 ENGL 5200. Seminar: The Renaissance, 4 units
 - ENGL 5300. Seminar: The Enlightenment and 18th Century, 4 units

^{*} These courses cannot apply toward the concentration if used to satisfy Liberal Studies Area D requirements.

^{**} Specific seminar titles will be announced in the Class Schedulè.

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ENGL 5400. Seminar: The Nineteenth Century, 4 units ENGL 5500. Seminar: The Twentieth Century, 4 units ENGL 5600. Seminar: American Literature, 4 units

- C. 1. A maximum of five units to be taken in ENGL 5990: Thesis.
 - A maximum of ten units of postbaccalaureate, 4000-level courses, as approved by the graduate adviser.
- D. Comprehensive examinations:
 Candidates must pass a written and an oral examination covering major figures in English and American literature.
- E. Reading knowledge of an appropriate foreign language as determined by the Department of English and Foreign Languages.

REQUIREMENTS FOR THE THESIS PROGRAM:

- 1. A minimum of 30 units of approved graduate credit.
- The submission of an approved thesis.
- 3. A written general literature examination.
- 4. An oral examination upon the thesis and the written examination.

REQUIREMENTS FOR THE NONTHESIS PROGRAM:

- 1. A minimum of 30 units of approved graduate credit.
- The submission of two approved seminar papers written in two different subject areas.
- 3. A written general literature examination.
- An oral examination upon the seminar papers and the written examination.

General Prerequisites:

Normally, an undergraduate major or minor in English is expected for admission to graduate seminars. Consultation with an English graduate adviser and his approval is required for all graduate credit courses.

COURSE DESCRIPTIONS

Lower Division

ENGL 1000. English Composition (3)

Directed writing based upon analytical reading of documents to include: expository prose, fiction, drama, journals.

ENGL 1010. Introduction to Literature (3)

Introduction to literature of various types. Readings in fiction, poetry, and drama. Required for majors and minors in English.

ENGL 1500. Perspectives in Literature (3)

Readings in various world literary masterpieces with emphasis upon their contemporary relevance. Work may be organized according to a theme such as "Man and Society," or "Man and His Myths." For the non-major. (Formerly 215)

ENGL 2010. Critical Approaches to Literature (3)

Basic theories, approaches, techniques, and terminology in the study of literature with special emphasis on the study of poetry. Prerequisites: ENGL 1000, 1010, or equivalent.

ENGL 2050. Technical and Report Writing (3)

Principles of technical writing and the composition of technical reports. Directed writing in various technical fields. Recommended for students in the natural sciences and business administration. Prerequisite: ENGL 1000.

ENGL 2950. Selected Topics in English (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in English. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

ENGL 2970. Selected Topics offered during Winter Term (4)

Upper Division

ENGL 3000. Advanced Composition (3).

Advanced expository writing based on analytical reading of selected documents. Prerequisite: ENGL 1000 or equivalent.

ENGL 3010. Creative Writing Workshop (3)

Practice in the methods and techniques of various types of writing. Workshop may vary from term to term. Offered each semester. May be repeated for a maximum of 9 units. Prerequisite: ENGL 1000 or equivalent.

ENGL 3050. Introduction to Cinema (3)

Study of the cinema and its relationship to contemporary culture. Includes a survey of selected films, critical discussions, and written appraisal of films. (Formerly 424) Prerequisite: Consent of instructor. (Same as DRAM 3050)

ENGL 3100. Studies in English Literature to 1800 (3)

Studies in various aspects of English literature to 1800. Course content may vary from term to term. Typical courses

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include: Medieval Poetry; The Tradition of Courtly Love; Renaissance Epic Verse; The Literature of Love 1557-1603; Elizabethan and Jacobean Tragedy; Augustan Satire; Women in the Literature of England 1600-1800. Offered each semester. Different titles may be taken for credit under this course number.

ENGL 3200. Studies in English Literature After 1800 (3)

Studies in various aspects of 19th and 20th Century English literature. Course content may vary from term to term. Typical courses include: Major Romantic Poets and Essayists; Victorian Faith and Doubt; Survey of Modern British Poetry. Offered each semester. Different titles may be taken for credit under this course number.

ENGL 3300. Studies in American Literature (3)

Studies in various aspects of American literature. Course content may vary from term to term. Typical courses include: The Realistic American Novel; The Romantic American Novel; Literature of the Lost Generation; The American Renaissance; The Revolution and After. Offered each semester. Different titles may be taken for credit under this course number

ENGL 3400. Studies in Major Authors (3)

Studies in various major authors in English and American literature. Writers may be studied singly or in pairs. Typical courses include: Shakespeare's Romances; Shakespeare and Renaissance Historiography; Milton's Major Poetry; Chaucer; Dickens and Carlyle; Whitman and Dickinson; James Joyce; D. H. Lawrence. Offered each semester. Different titles may be taken for credit under this course number.

ENGL 3500. Genre Studies (3)

Studies in the various genres. Course content may vary from term to term. Typical courses include: The 18th Century English Novel; The Victorian Novel; Modern Drama; The Modern British Novel. Offered each semester. Different titles may be taken for credit under this course number.

ENGL 3700. Studies in Minority Literature (3)

Studies in the various aspects of literature written by minority groups. Course content may vary from term to term. Typical courses include: Black Classics; Native American Literature; American Jewish Writers. Different titles may be taken for credit under this course number.

ENGL 3800. Introduction to Linguistics (4)

An introduction to the scientific study of language. Topics covered include dialect study, language acquisition, comparative linguistics, and modern theories of language. (Same as ANTH 3800)

ENGL 3810. Introduction to Historical Linguistics (3)

An introduction to the study of how languages change. Primary emphasis will be on the history of the English language from prehistoric times to the present, but other languages will be treated. (Formerly 401)

ENGL 3820. American English Dialects (3)

A study of variation in English. Both regional and social dialects will be covered. Prerequisites: ENGL 3800, 3810, SPCH 3000, or SPCH 4010, or consent of instructor.

ENGL 3930. World Literature in Translation (2-5)

Studies in various aspects of world literature in English translation. Course content may vary from term to term. Typical courses include: Arthurian Romances; Goethe and Schiller; Golden Age Masterpieces; Greek and Roman Literature. Offered each semester. Different titles may be taken for credit under this course number. (Same as FREN, GERM, SPAN 3930)

ENGL 4000. Special Study in Major Authors (2-5)

Advanced study of a major author or pair of major authors. Course content may vary from term to term. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 4050. Special Study in Genre, Style, Mode (2-5)

Studies in various genres, styles, or modes of literary expression. Course content may vary from term to term. Typical courses include: The Utopian Dream in American Literature; Tragedy; Rhetoric and Literature; Realism in the English Novel. Offered each semester. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 4100. Special Study in Medieval Literature (2-5)

Advanced study in medieval literature. Course content may vary from term to term. Typical courses include: Fabliaux; Chaucer's Early Poetry; Critical Approaches to Medieval Literature. Offered at least once every two years. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 4200. Special Study in the Renaissance (2-5)

Advanced study in the Renaissance. Course content may vary from term to term. Typical courses include: Caroline Court Poetry; Ben Jonson; Antique Poets Historicall; Metaphysical Poetry.

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Offered each year. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 4300. Special Study in the Enlightenment and 18th Century (2-5)

Advanced study in the literature of the Enlightenment and 18th century. Course content may vary from term to term. Typical courses include: Transitional Poets of the Late 18th Century; London and 18th Century Literature; The Age of Skepticism. Offered at least once every two years. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 4400. Special Study in the 19th Century (2-5)

Advanced study in the literature of the 19th century. Course content may vary from term to term. Typical courses include: Victorian Ideas; Wordsworth and Coleridge; The American and English Novel; A Study in Contrasts; The Romantic Ode. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 4500. Special Study in the 20th Century (2-5)

Advanced study in the literature of the 20th century. Course content may vary from term to term. Typical courses include: Contemporary American Poetry; Currents in Modern European Literature; The Poetry and Criticism of T. S. Eliot; Contemporary British Poetry. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 4600. Tutorial Projects in English (3)

An inquiry into the techniques of teaching the reading and writing of the English language. Instruction in the problems involved in tutoring students in English. Prerequisite: Consent of instructor.

ENGL 4610. Curriculum and Instruction: English (3)

Contemporary trends and problems in English education with emphasis on language arts curriculum development, selection and organizations of materials and procedures for the secondary and junior high school. Field observations and contact with local teachers. (Formerly 453. Same as EDUC 3200 and will substitute for EDUC 3160 with consent of credential adviser.) Prerequisite: Consent of instructor.

ENGL 4620. Children's Literature (3)

Introduction to children's literature: fiction, poetry, drama, fantasy, fairy tales, folklore, and ethnic materials. Analysis of children's literature and investigation of the techniques of teaching literature to children.

ENGL 4630. Adolescent Literature (3)

Introduction to adolescent literature: fiction, poetry, drama. Analysis of the literature and investigation of the techniques of teaching literature to adolescents.

ENGL 4700. Interdepartmental Study (2-5)

Studies in various interdepartmental topics. Course content may vary from term to term. Typical courses include: Literature of Urban Life; Medieval English Drama: Literary Backgrounds and Contemporary Performance; Myth in Art and Literature; Backgrounds of American Literature; The Political Novel. Courses will be team-taught with other academic departments. Prerequisite: Consent of instructor.

ENGL 4950. Selected Topics in English (Topics to be specified in the Class Schedule) (1-5)

Development of a selected topic in English. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.

ENGL 4970. Selected Topics offered during Winter Term (4)

ENGL 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Graduate

ENGL 5000. Graduate Studies in English: Problems and Methodology (5)

Introduction to the graduate study of English with primary focus upon methods of research, bibliography, and the various approaches to the disciplines of litereature and criticism.

ENGL 5100. Seminar: Medieval Literature (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.

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ENGL 5200. Seminar: The Renaissance (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5300. Seminar: The Enlightenment and 18th Century (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5400. Seminar: The Nineteenth Century (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5500. Seminar: The 20th Century (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5600. Seminar: American Literature (4)

This seminar will focus upon the works of one or more major authors. Since the particular authors to be studied will vary each time the seminar is offered, this course may be repeated for a total of 8 units. (Formerly 550) Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5950. Selected Topics in English (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in English. Topics will vary. Different topics may be taken for credit. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5970. Selected Topics offered during Winter Term (4)

ENGL 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: ENGL 5000 or consent of instructor.

ENGL 5990. Thesis (3-5)

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FRENCH

REQUIREMENTS FOR THE BACHELOR OF ARTS, FRENCH

French majors are to:

- 1. Complete the requirements for Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- Complete the major of not less than 24 upper division units; of these no more than 8 units of CR graded course work may apply toward the major.
- Completion of an academic minor is not required but is strongly recommended for single subject credential candidates.

DEGREE MAJOR IN FRENCH

Prerequisites to the Major:

*FREN 1010, 1020. Elementary French I, II, 8 units *FREN 2010, 2020. Intermediate French I, II, 6 units

The Major

Required courses in the major field:	Jnits
FREN 3010, 3020. Advanced French Grammar and	
Composition I, II	6
FREN 3500. French Phonetics	
FREN 3510. French Conversation	1
Elective courses in the major field: Two courses from the sequence 3300, 3310,	
3320, 3330	6
Upper division elective courses to total not	
less than 8 units	-8
Total	24

DEGREE MINOR IN FRENCH

Twenty-six units, to include at least 12 units in upper division, with a minimum of 14 college units.

^{*} A student who can demonstrate equivalent preparation may be exempt from 4 to 14 units of the lower division requirement. Two years of college-level French or the equivalent is required for admission to upper division courses.



Lower Division

*FREN	1010,	1020.	Elementary French I, II, 8 units
*FREN	2010.	2020.	Intermediate French I. II. 6 units

Upper Division

FREN 3010, 3030. Advanced French Grammar and Composition I, II, 6 units
One course from the sequence 3300, 3310, 3320, 3330, 3 units

COURSE DESCRIPTIONS

Lower Division

FREN 1010. Elementary French I (4)

Upper division electives, 3 units

First-year French: audio-lingual approach; understanding, speaking, reading, and writing. (Formerly 101, 102)

FREN 1020. Elementary French II (4)

Continuation of FREN 1010. (Formerly 102, 103) Prerequisite: FREN 1010 or equivalent, or consent of instructor.

FREN 2010. Intermediate French I (3)

Second-year French, emphasizing the audio-lingual approach. Extensive review of the morphology and syntax of the language. (Formerly 201, 202) Prerequisite: FREN 1020 or equivalent, or consent of instructor.

^{*}A student who can demonstrate equivalent preparation may be exempt from 4 to 14 units of the lower division requirement. Two years of college-level French or the equivalent is required for admission to upper division courses.

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FREN 2020. Intermediate French II (3)

Continuation of FREN 2010. (Formerly 203) Prerequisite: FREN 2010 or equivalent, or consent of instructor.

FREN 2950. Selected Topics in French (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in French. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.

FREN 2970. Selected Topics offered during Winter Term (4)

Upper Division

FREN 3010. Advanced French Grammar and Composition I (3)

Oral and written practice in French, syntactical analysis, written and oral composition, and supplementary reading. Taught in French. (Formerly 301, 302) Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3020. Advanced French Grammar and Composition II (3)

Continuation of FREN 3010. (Formerly 302, 303) Prerequisite: FREN 3010 or equivalent, or consent of instructor.

FREN 3300. Aspects of French Non-Fiction (3)

A course dealing with the development and evolution of French non-fiction, particularly essays, from Montaigne to the present. Conducted in French. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3310. Aspects of French Drama (3)

A course dealing with selected French dramatic works, from the Middle Ages to the present. Conducted in French. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3320. Aspects of French Poetry (3)

A course dealing with the development and evolution of French poetic forms, from the Middle Ages to the present. Conducted in French. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3330. Aspects of the French Novel (3)

A course dealing with the development and evolution of the French novel, from its beginnings to the present. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

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FREN 3500. French Phonetics (3)

A detailed study of modern French phonology and its representation, including work on dialectal differences as well as analysis of contrasts with English. Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3510. French Conversation (1)

A course designed for advanced students. Class work will include discussions of current (cultural) events and/or other topics of common interest. Course may be repeated once for credit. (Laboratory, 2 hours) (Formerly 400) Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 3930. French Literature in Translation (2-5)

Studies in various aspects of French literature in English translation. Course content may vary from term to term. Typical courses include: Arthurian Romances; French Satirical Literature; French Existential Literature. Different titles may be taken for credit under this course number. (Same as ENGL 3930)

FREN 4070. French Classicism (3)

A study of the major literary and intellectual developments in France during the seventeenth century; an analysis of the development of major genres. (Formerly 425) Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 4080. French Romanticism (3)

Major works of the poetry, drama, and novels of the French Romanticists, beginning with Mme. de Staël and going through Edmond Rostand. (Formerly 428) Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 4090. Modern French Poetry (3)

French poetry from the Parnassians to the present. Study of trends of the poetry from the mid-19th century to the present. (Formerly 427, 429) Prerequisite: FREN 2020 or equivalent, or consent of instructor.

FREN 4100. Modern French Fiction (3)

French novels from the end of the Romantic period to the present, stressing Flaubert, Zola, Proust, Gide, Mauriac, Saint-Exupery, Camus, Sartre, and the new novelists. (Formerly 428, 429) Prerequisite: FREN 2020 or equivalent, or consent of instructor.

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FREN 4950. Selected Topics in French (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in French. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor.

FREN 4970. Selected Topics offered during Winter Term (4)

FREN 4980. Individual Study (1-4)

For advanced undergraduate students prepared for independent work, and in need of advanced and specialized study in French. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

FREN 5980. Individual Study (1-4)

For postbaccalaureate students prepared for independent work, and in need of advanced and specialized study in French. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

GERMAN

DEGREE MINOR IN GERMAN

Twenty-six units, to include at least 12 units in upper division, with a minimum of 14 college units.

Lower Division

*GERM 1010, 1020. Elementary German I, II, 8 units *GERM 2010, 2020. Intermediate German I, II, 6 units

Upper División

GERM 3010. Advanced German Grammar and Conversation, 3 units GERM 3100. Modern Germany, 3 units Upper division electives, 6 units

LIBERAL STUDIES CONCENTRATION IN GERMAN

		Units
GERM 2010,	2020. Intermediate German I, II or	
	equivalent	0-6
GERM 3010.	Advanced German Grammar and Conversation .	. 3
GERM 3100.	Modern Germany	. 3

^{*}A student who can demonstrate equivalent preparation may be exempt from 4 to 14 units of the lower division requirement. Two years of college-level German or the equivalent is required for admission to upper division courses.

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GERM 3100. Modern Germany (3)

A study of the major cultural, social, and economic developments of the contemporary German scene, with special attention to accurate and idiomatic expression in written and spoken German. Prerequisite: Two years of college German or equivalent, or consent of instructor.

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SPAN 3020. Advanced Spanish II (3)

Continuation of SPAN 3010. Required of majors and minors. Prerequisite: SPAN 3010 or equivalent, or consent of instructor.

SPAN 3200. Literature of Spain I (3)

A study of selected complete works by Spanish writers. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3210. Literature of Spain II (3)

A study of selected complete works by Spanish writers. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3300. Literature of Spanish America I (3)

From the beginnings to 1880. (Formerly 330, 331) Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3310. Literature of Spanish America II (3)

From 1880 to the present. (Formerly 331, 332) Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3510. Spanish Phonemics and Phonetics (2)

A study of modern Spanish sound production and its representation with emphasis on contrasts with English. Prerequisite: SPAN 2020 or consent of instructor.

SPAN 3600. History and Civilization of Spain (3)

A brief survey of the history of Spain, its culture and civilization. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3610. History and Civilization of Spanish America (3)

A survey course of the history and civilization of Spanish America. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 3930. Spanish Literature in Translation (3)

Studies in various aspects of Spanish literature in English translation. Course content may vary from term to term. Typical courses include: Golden Age Masterpieces; Contemporary Latin American Literature; Spanish Literature, 1900-1936. Different titles may be taken for credit under this course number. (Same as ENGL 3930)

SPAN 4200. El teatro en Espana (3)

A study of Spanish theatre from early times to the present,

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including the reading of selected plays. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 4240. Cervantes (3)

A study of the works of Cervantes including Don Quijote. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 4250. Prosa Hispanoamericana: Siglos XIX-XX (3)

A study of selected 19th and 20th century Spanish American short stories, essays, and novels. Prerequisite: SPAN 3010 or consent of instructor.

SPAN. 4510. Curriculum and Instruction: Spanish (3)

Current practices in modern foreign languages instruction, with emphasis on laboratory procedures and the audio-lingual-visual approach. Prerequisite: Admission to credential program or teaching experience, or consent of instructor. (Same as EDUC 3210)

SPAN 4600. Literatura Mexicana (3)

Authors of Mexico and their works from Cortes to the contemporary period. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 4950. Selected Topics (Topics to be specified in Class Schedule) (1-5)

Topics vary each term; different topics may be taken for credit. Prerequisite: SPAN 3010 or consent of instructor.

SPAN 4970. Selected Topics offered during Winter Term (4)

SPAN 4980. Individual Study (1-4)

For students prepared for independent work, and in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

SPAN 5980. Individual Study (1-4)

For postbaccalaureate students needing advanced or specialized study. May be repeated for 6 units. Prerequisite: Consent of instructor.

Within the School of Natural Sciences, a concentration in environmental sciences is offered which is designed to acquaint the student with environmental problems and research in the areas of biological sciences, chemistry, mathematics and physical sciences. The student will complete courses in each of these areas, participate in interdepartmental seminars, and become involved in the study of an environmentally related problem. Courses are required in each of the departments to help the student better understand the nature and diversity of the environment, as well as the broad scope of research and study necessary to deal effectively with environmental problems.

Each student must satisfy the graduation requirements of the college including the completion of a major in biological sciences, chemistry, mathematics, physical science or physics. In addition, the student must complete the requirements for the environmental sciences concentration as outlined. Students majoring in physical science may combine the environmental science concentration requirements with major requirements to complete the physical science degree as outlined in the catalog.

PREREQUISITES TO THE ENVIRONMENTAL SCIENCE CONCENTRATION

Each student in the program is expected to complete these courses or their equivalent:

BOTY	1050.	Intro	duction	n to :	Botan	y, 4 u	nits			
ZOOL	1050.	Intro	duction	n to	Zoolo	gy, 4	units			
CHEM	1100,	1110.	Princ	iples	of C	hemist	ry I,	II, 1	0 units	
		Stati								
or	MATH	3660.	Probab	ility	& St	atisti	cs II,	4 un	its	
MATH	2000.	Intro	ductio	n to	Compu	ters,	3 unit	S		
PHYS	1100,	1110.	Basic	Phys	ics I	, II,	10 uni	ts		
or	PHYS	2250, 2	2260.	Gener	al Ph	ysics	I, II,	8 un	its	
and	PHYS	2350,	2360.	Gene	ral P	hysics	Lab I	, II,	2 units	5

ENVIRONMENTAL SCIENCE CONCENTRATION

Each student will complete the following course work:	ts
BIOL 3630. Ecology	1
CHEM 2010. Quantitative Analysis & Basic	
Instrumental Techniques	1
MATH 1410. Calculus I, 4 units	
or MATH 1910. Calculus with Applications I, 3 units . 3-4	1
MATH 1420 or MATH 1920 is recommended.	

Each student should include additional environmental courses in consultation with the adviser.

COURSE DESCRIPTION

NSCI 4960. Seminar in Environmental Science (1)

Environmental topics will be presented and discussed by faculty, students, and visiting scientists. May be repeated for a maximum of 4 units. Prerequisite: Upper division standing or consent of the instructor.

Ethnic Studies

Richard L. Luevano, M.A., Co-Director Delo E. Washington, M.S.W., Co-Director

Ethnic Studies is a multi-disciplinary program that coordinates a variety of courses, activities, and projects designated to enhance the understanding of the roles, functions, and life styles of American ethnic minority peoples.

A sequential offering of courses has been made possible through the presentation of courses in existing academic departments and through special interdisciplinary courses presented directly through the ethnic studies program. Special advising schedules of ethnic studies course offerings are made available to advisers and students each semester. Further information may be obtained by consulting directly with the ethnic studies faculty members.

The following is a list of the courses that are offered in Asian-American Studies, Black Studies, Chicano Studies and Native-American Studies, and may be designated according to the following categories:

Category I

An introduction to the study of the role, function, and life styles of American ethnic groups.

ETHS 2000. Contemporary Black Studies, 3 units

ETHS 2100. Contemporary Chicano Studies, 3 units

ETHS 2200. Contemporary Asian-American Studies, 3 units

ETHS 2300. Contemporary Native-American Studies, 3 units

Category II

A detailed study of the cultural development of ethnic groups in America.

ANTH 3350. The North American Indian, 3 units

ANTH 3360. The Indians of California and Western North America, 3 units

ANTH 3370. Native Peoples of Mexico, 3 units

ENGL 3700. Studies in Minority Literature, 3 units

Category III

A detailed study of the historical development of each minority group in $\mbox{\sc America}.$

HIST 3510. Latin America in Colonial Times, 3 units

HIST 3710. Mexican-American History, 3 units

HIST 3730. Afro-American History, 3 units

Ethnic Studies

Category IV

A study of the psychological, sociological, economic, educational, and political adjustments necessary for members of each of these groups to function in American society.

EDUC 3030. Ethnic Groups in Public Education, 2 units EDUC 4200. Teaching the Culturally Different, 3 units PSCI 4320. Minority Politics, 3 units SOCL 3010. Race and Ethnic Relations, 3 units

Category V

A synthesis of knowledge gained in the preceding courses with some introduction of research methodology for the study of each ethnic group.

ETHS 4940. Field Work in Ethnic Studies, 4 units ETHS 4950. Selected Topics in Ethnic Studies, 1-5 units ETHS 4960. Seminar in Ethnic Studies, 3 units ETHS 4980. Individual Study, 1-4 units

COURSE DESCRIPTIONS

Lower Division

ETHS 2000. Contemporary Black Studies (3)

A survey of the Black experience, a look at the distinctive Black culture and customs, and an analysis of the various problems of economic, religious, political, psychological, and educational adjustment. Particular emphasis will be placed on problems encountered in the ghetto and White resistance to change in the urban and suburban communities.

ETHS 2100. Contemporary Chicano Studies (3)

A survey of the Chicano experience, a look at the distinctive Chicano culture and customs, and an analysis of the various problems of economic, religious, political, psychological, and educational adjustment. Particular emphasis will be placed on problems encountered in the barrio, the farm labor situation, and the educational complications of bi-linguality.

ETHS 2200. Contemporary Asian-American Studies (3)

A survey of the Asian-American experience, a look at the various Asian-American cultures and customs, and an analysis of the various problems of economic, religious, political, psychological and educational adjustment. Particular emphasis will be placed on inter-ethnic identity, identity crises and contacts among Asian-Americans.

ETHS 2300. Contemporary Native-American Studies (3)

A survey of the Native-American experience, a look at the various Native-American cultures and customs, and an analysis of the various problems of economic, religious, political, psychological, and educational adjustment. Particular emphasis will be placed on problems encountered on the reservations, Bureau of Indian Affairs policies, and the "new Indian."

ETHS 2970. Selected Topics offered during Winter Term (4)

Upper Division

ETHS 4940. Field Work in Ethnic Studies (4)

Work in ethnic relations performed in a community, an institution, or an agency setting is arranged. Efforts will be made to bridge a gap between the intellectual pursuit of knowledge and its practical application in intergroup contacts.

ETHS 4950. Selected Topics in Ethnic Studies (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of ethnic studies. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

ETHS 4960. Seminar in Ethnic Studies (3)

A synthesis of existing knowledge from ethnic studies material; relating pertinent background information to special independent projects. Prerequisites: Course work in ethnic studies and consent of instructor.

ETHS 4970. Selected Topics offered during Winter Term (4)

ETHS 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Geography

Joel Canby, Ph.D., Professor, Chairman Department of Anthropology/Geography Melvin H. Aamodt, Ph.D., Professor Leon S. Pitman, Ph.D., Associate Professor Ida I. Bowers, Ph.D., Assistant Professor

Geography is concerned with the interrelationships between the environmental characteristics of the earth and man's perception and use of them. A major goal of the department is to provide students with a meaningful knowledge of the world's peoples in their different physical settings.

The Department of Anthropology/Geography offers the degree Bachelor of Arts, Geography, as well as courses for a concentration in the liberal studies major, or as one of three fields of interest in the social sciences major. A minor in geography is also available. In addition, its courses are open to all students interested in obtaining a better understanding of the world in which they live.

REQUIREMENTS FOR THE BACHELOR OF ARTS, GEOGRAPHY

Geography majors are to:

- 1. Complete the requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites for the major.
- Complete the major of not less than 24 upper division units as approved by the major adviser. Eight units of Winter Term CR graded course work may apply toward the major.
- 4. Completion of a minor is recommended but not required.

DEGREE MAJOR IN GEOGRAPHY

Prerequisites to the Major

Required courses in supporting fields:

At least three of the following courses in supporting fields are to be completed prior to graduation. Selection of these courses is to be made in consultation with the major adviser.

ANTH 2060. Introduction to Cultural Anthropology, 3 units

BIOL 2650. Environmental Biology, 2 units

BIOL 3630. Ecology, 4 units

GEOL 2100. Principles of Geology, 3 units and GEOL 2110. Geology Laboratory, 1 unit

MATH 1600. Statistics, 4 units

MATH 2000. Introduction to Computers, 3 units

SOCL 2030. Research Methods, 4 units

Required courses in the major field:

Two courses as follows:

GEOG 2010. Introduction to the Physical Environment, 3 units

Any one of the following:

GEOG 2020. Introduction to Cultural Geography, 3 units

GEOG 2400. World Regional Geography I, 3 units

GEOG 2410. World Regional Geography II, 3 units

The Major

A minimum of 24 upper division semester units in Geography selected as specified in the following:

- A. Any combination of 8 or more units from the following two categories of Geography, but including at least one course from Group 1 and one from Group 2:
 - 1. Topical Human Geography

GEOG 3020. Human Ecology, 3 units (Formerly 402)

GEOG 3070. Agricultural Geography, 3 units

GEOG 3300. Economic Geography, 3 units

GEOG 4300. Geography of Resource Planning, 3 units

GEOG 4350. Urban Geography, 4 units (Formerly 335)

Topical Physical Geography

GEOG 3100. Climatology, 3 units

GEOG 3120. Geomorphology, 3 units

GEOG 4140. Physiographic Regions of the United States,

B. Any combination of 6 or more units from the following:

Regional Geography

GEOG 3510. Geography of North America, 4 units

GEOG 3550. Geography of Europe, 3 units

GEOG 3570. Geography of the Soviet Union and its Satellites, 3 units

GEOG 3590. Geography of Asia, 4 units

GEOG 4200. Geography of Developing Areas, 3 units

GEOG 4510. Geography of California, 3 units

GEOG 4610. Historical Geography of the United States, 3 units

C. Six units from the following, of which one course must be either GEOG 3700 or GEOG 4710. Students preparing for a career in teaching are expected to include GEOG 4840. Those preparing for graduate study in geography should take GEOG 4800:

Geography

Methodology in Geography
GEOG 3700. Cartographic Presentation, 3 units
GEOG 3710. Remote Sensing of the Environment, 2 units
GEOG 4710. Field Studies, 3 units
GEOG 4800. Survey of Geographic Thought and Literature,
3 units
GEOG 4840. Geography and the Earth Sciences for
Teachers, 3 units
GEOG 4960. Senior Seminar, 3 units

D. Upper division electives in Geography to make a total of at least 24 units, including those upper division units listed above.

DEGREE MINOR IN GEOGRAPHY

Sixteen semester units approved by the minor adviser are required, including at least 12 units in upper division courses. These upper division units must include a minimum of one course from each of the following three categories:

- 1. Topical Human Geography
- 2. Topical Physical Geography
- 3. Regional Geography

(See the listing above for courses in each of these categories.)

Units

LIBERAL STUDIES CONCENTRATION IN GEOGRAPHY

Liberal Studies majors who wish to take their concentration in Geography are to complete a minimum of 20 units, including at least 15 units of upper division courses.

1.	Complete one of the following lower division courses	. 3
2.	Complete one of the following courses in the methodology of Geography	. 3
3.	Complete the following regional course GEOG 3510. Geography of North America, 4 units	. 3
4.	Additional units in geography	. 11
	Total	. 20

Course work selection should be based on student's interest and career goals.

It is recommended that students planning on a teaching career include GEOG 4840, Geography and the Earth Sciences for Teachers, in their electives.

REQUIREMENTS FOR GEOGRAPHY AS A FIELD OF INTEREST IN THE SOCIAL SCIENCES MAJOR

Students may choose to study geography as part of a Social Sciences major. See Social Sciences, Requirements for the Bachelor of Arts.

TEACHING CREDENTIALS

Geography majors interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.

COURSE DESCRIPTIONS

Lower Division

GEOG 2010. Introduction to the Physical Environment (3)

Analysis of the distribution and character of the major elements of the physical environment, including landforms, climates, soils, vegetation, significance and meaning to man; man's impact on and use of these elements. (Lecture, 2 hours; laboratory, 2 hours)

GEOG 2020. Introduction to Cultural Geography (3)

Study of the cultural elements of geography such as language, religion, land tenure systems, migrations of people, plants, and animals, dispersals of ideas and techniques, transformations of natural to cultural landscapes; consideration of how man interacts with and modifies his environment? Field trip may be required.

GEOG 2400. World Regional Geography I (3)

A survey of the major culture regions of the Old World, including Asia, Europe, and Africa, with an emphasis on environment and contemporary economic and cultural conditions. Key topics to be considered include location, population, political status, the natural environment, type of economy, potentialities, and current problems.

GEOG 2410. World Regional Geography II (3)

A survey of the major culture regions of the New World including North America, Latin America, and the Pacific, with emphasis on environment and contemporary economic and cultural conditions.

Geography

Key topics to be considered include location, population, political status, the natural environment, type of economy, potentialities, and current problems.

GEOG 2950. Selected Topics in Geography (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of geography. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

GEOG 2970. Selected Topics offered during Winter Term (4)

Upper Division

GEOG 3020. Human Ecology (3)

An analysis of the relationships between the natural environment and man's cultural achievements, with special problems relating to both primitive and modern man. (Formerly 402) Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 3070. Agricultural Geography (3)

An examination of agricultural systems in the world today and the environmental factors, both physical and cultural, which interact to produce them. (Formerly 407) Prerequisite: GEOG 2010 or equivalent.

GEOG 3100. Climatology (3)

The elements and controls of weather and climate; analysis of climatic regions of the world. Prerequisite: GEOG 2010 or consent of instructor.

GEOG 3120. Geomorphology (3)

Study and interpretation of the earth's landscapes; includes consideration of the processes acting on landforms under diverse climatic conditions. Prerequisite: An introductory course in Physical Geography or Geology or equivalent.

GEOG 3300. Economic Geography (3)

Study of world economic activity from a geographic point of view; systematic analysis of agricultural, mining, and manufacturing patterns in the various regions of the world in relation to their natural and cultural settings. Considers locational determinants of human economic activities. Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 3510. Geography of North America (4)

A topical and regional survey and analysis of physical and cultural factors responsible for present patterns in land use and settlement in the United States and Canada; considers changes in regional patterns, including agriculture, industry, transportation, urbanization. Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 3550. Geography of Europe (3)

The regional geography of Europe, exclusive of the Soviet Union, with emphasis on the historical development of present-day patterns. Prerequisite: Any 2000-level geography course or consent of instructor. (Taught alternate years)

GEOG 3570. Geography of the Soviet Union and Its Satellites (3)

A survey of the physical, cultural, and economic landscapes of the Soviet Union and its satellites. Covers the physical features, resources, agriculture, industry, people, potential, and problems of this vast area. Prerequisite: Any 2000-level geography course or consent of instructor. (Taught alternate years)

GEOG 3590. Geography of Asia (4)

A comprehensive survey of the physical, cultural, and economic geography of Asia excluding Asiatic Russia. Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 3700. Cartographic Presentation (3)

Introduction to thematic cartography; fundamentals of map reading and cartographic portrayal including map design, compilation, drafting, and reproduction. (Lecture, 2 hours; laboratory, 2 hours) Prerequisite: Six units of geography or consent of instructor.

GEOG 3710. Remote Sensing of the Environment (2)

A survey of the essentials of aerial photographic interpretation; the uses of aerial photography and other remote sensing imagery as tools in the comprehension of spatial phenomena. Prerequisite: 6 units of geography or consent of instructor. (Taught alternate years)

GEOG 4140. Physiographic Regions of the United States (3)

A detailed examination of the physiographic provinces of the U.S. with respect to (1) their structure, (2) the role of climate and vegetation in altering the landform surface, and (3) the

Geography

resultant regional patterns. Prerequisite: GEOG 3120 or consent of instructor. (Taught alternate years)

GEOG 4200. Geography of Developing Areas (3)

Analysis of man-land relationships and physical and cultural distributions pertinent to development. Consideration of the role of geography in solution of development problems. Prerequisite: 6 units in geography. (Taught alternate years)

GEOG 4300. Geography of Resource Planning (3)

A survey of the geography of resource management and regional planning; the development of planning regions; population elements in relation to management and planning; techniques of data collection for resource analysis; case studies from developed and underdeveloped countries. Prerequisite: GEOG 3020 or consent of instructor.

GEOG 4350. Urban Geography (4)

Study of the spatial aspects of the city. Emphasis on the relationship of cities to each other and to the countryside, as well as on the internal structure and spatial dynamics of urban centers. Special consideration given to problems of the urban environment including urban sprawl, water and recreational needs, and controls on land use. Field trips may be required. (Formerly GEOG 335) Prerequisite: Any 2000-level geography course or consent of instructor.

GEOG 4510. Geography of California (3)

An interpretive description of the natural environment of the State with an analysis of past and present settlement patterns and current utilization of natural resources. Prerequisite: Any 2000-level course in geography or consent of instructor.

GEOG 4610. Historical Geography of the United States (3)

A study of the evolution of cultural landscapes in the United States. Emphasis on initial and sequential settlement patterns, routes of diffusion and migration, and use of resources in light of cultural traditions. Comparative analysis of regional differences in material folk culture. Prerequisites: Junior standing and consent of instructor. (Taught alternate years)

GEOG 4710. Field Studies (3)

Methods of field observation; techniques of data collection and analysis; investigations of rural and urban land use in the San Joaquin Valley. Prerequisite: 6 units of geography.

GEOG 4800. Survey of Geographic Thought and Literature (3)

A proseminar designed to give majors and minors an awareness of the heritage of academic geography, to acquaint them with the breadth of its literature, and to refine their skills in geographical research and writing. Prerequisite: 6 upper division units in geography (may be concurrent). (Taught alternate years)

GEOG 4840. Geography and the Earth Sciences for Teachers (3)

For in-service teachers and teacher trainees who are or will be teaching geographic and earth science concepts at the elementary, high school, or college level; a survey of the concepts, tools, and methods of modern geography and related earth science. Prerequisite: 6 units of geography.

GEOG 4950. Selected Topics in Geography (Topics to be specified in Class Schedule) (1-5)

Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

GEOG 4960. Senior Seminar (3)

Problems on a particular aspect of the field of geography. Topic changes each year offered. Each student will be expected to report on an individual project. Different topics may be taken for a maximum of 6 units. Prerequisite: Consent of instructor.

GEOG 4970. Selected Topics offered during Winter Term (4)

GEOG 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Health Sciences

Students enrolled at California State College, Stanislaus may prepare themselves for admission to professional schools in medicine, veterinary medicine, dentistry, pharmacy, optometry, and other health professions such as physical therapy. With the appropriate selection of courses they may also qualify to apply for training in a medical laboratory and become certified medical laboratory technicians.

To aid students to organize a program of studies qualifying them for admission to these professional schools, a Health Sciences Advisory Committee has been established. Students should register with the committee as soon as possible by contacting the Dean of the School of Natural Sciences. A committee member will prepare a suggested basic course program to supplement the curriculum outlined by the major adviser.

The Health Sciences Advisory Committee will compile data on each student and prepare a letter of evaluation to be sent at the student's request in support of his applications to professional schools. It is important that the Health Sciences Advisory Committee be contacted as soon as possible (preferably before interview with the major adviser) so that the student can be properly advised. Registration with the Health Sciences Advisory Committee does not commit the student to any particular program or career.

Students especially interested in the areas of medicine, pharmacy, optometry, dentistry, and veterinary medicine are advised to complete, as a minimum, one-year sequences in English Composition (ENGL 1000, 3000), Biological Sciences (ZOOL 1050 and BOTY 1050), Chemistry (CHEM 1100, 1110), and Physics (PHYS 1100, 1110), during their freshman and sophomore years. Mathematics to the level of precalculus (MATH 1100 or 1050) should be attained by this time. Normally dental and medical school admission tests are taken in the spring of the student's junior year with the following additional preparation completed or in progress: CHEM 3010, 3030; and either ZOOL 3130, 3150, or BIOL 3310. MATH 1410 is encouraged as preparation for these examinations also.

Additional recommendations will be provided through advisement from this committee and the major adviser.

The college also offers preprofessional course work for areas such as laboratory technology, cytotechnology, nursing, and other paramedical and health related fields.

History

John E. Caswell, Ph.D., Professor, Chairman
Franklin B. Holder, Ph.D., Professor
John P. Rasmussen, Ph.D., Professor
J. W. Smurr, Ph.D., Professor
David Bentheim Stenzel, Ph.D., Professor
Austin Metumara Ahanotu, Ph.D., Associate Professor
Britten Dean, Ph.D., Associate Professor
Curtis R. Grant, Ph.D., Associate Professor
Samuel A. Oppenheim, Ph.D., Associate Professor
Ronald J. VanderMolen, Ph.D., Associate Professor

History provides the general student with a background for studying the humanities or social sciences and understanding the contemporary world. Preparation in history is especially useful for careers which require careful judgment on the basis of limited evidence, such as the United States Foreign Service, intelligence work, journalism, law, as well as teaching.

The Department of History offers the degrees Bachelor of Arts, History, and Master of Arts, History. The College also offers the degree Bachelor of Arts, Liberal Studies, with a concentration in History for those seeking a Multiple Subject Credential.

REQUIREMENTS FOR BACHELOR OF ARTS, HISTORY

History majors are to:

- 1. Complete the requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- Complete the major of 30 upper division units.
 No CR units counted, except 8 in the Winter Term.
- Completion of a minor is not required.

Reading knowledge of a foreign language is desirable for the Bachelor's degree, is required in the Honors Program, and is required in the Graduate History programs here and in most other schools.

DEGREE MAJOR IN HISTORY

Prerequisites to the major

Required courses in the major field:

A one-year sequence in American, European, or non-Western history, 6 units

HIST 2900. Library Resources and Bibliographical Control for Historical Research, 2 units

History

The	Major		Units
Α.	HIST 3000.	Introductory Seminar in History To be taken during the student's first semester as an upper division major	3
В.		in upper division European history from ng list	3-4
	*HIST 3120. *HIST 3140. *HIST 3150. *HIST 3210. HIST 3220. HIST 3230. HIST 3240.	Ancient Mediterranean World II, 4 units Medieval Europe I, 3 units Medieval Europe II, 3 units Renaissance and Reformation, 3 units Absolutism and Revolution, 3 units Nineteenth Century Europe, 3 units Twentieth Century Europe, 3 units	
C.		n upper division American history from ng list	3
	HIST 3610. HIST 3620. HIST 3630. HIST 3640.	Colonial America, 3 units Ante-Bellum America, 3 units America after the Civil War, 3 units Contemporary America, 3 units	
D.		in upper division non-Western history lowing list	6-7
	*HIST 3110. *HIST 3510.	Ancient Mediterranean World I, 4 units Latin America in Traditional and Colonial Times, 3 units	
	HIST 3520.	Latin American States since Independence, 3 units	
	*HIST 3860.	East Asia in Traditional Times, 3 units East Asia in the Modern World, 3 units Africa before 1800, 3 units Africa, 1800-1945, 3 units Contemporary Africa, 3 units	
E.	modern era.	vo courses from B, C, & D, above, must be in a Courses fulfilling this requirement are stars fulfilling this requirement is HIST 4350, Engla units.	red
F.	Two sections	s of:	
		Directed Reading Seminar, 3 units	6
G.	HIST 4990.	Senior Thesis, 4 units	4
н.	Unstructure	d electives in History	3
	TOTA	AL UNITS IN HISTORY MAJOR	30

DEGREE CONCENTRATION AND MINOR IN HISTORY OF RELIGIONS

The Bachelor of Arts degree in History with a concentration in History of Religions is designed for those who have an interest in the academic study of religions and for those who want to prepare to teach about religions in the schools. The transcripts of history majors completing the program will note the concentration in History of Religions, while those who have other majors will be credited with a minor in History of Religions. Courses taken in the program are divided among the following areas: history of predominantly religious cultures (when students choose to apply these courses to the minor or concentration, their outside reading will be done in religion); specialized courses in the history of world religions; and courses which analyze religion. Further, the religions of at least two different societies are to be studied. Complete requirements are listed below.

I. Recommended lower division work

These courses and competencies are not prerequisites, but will give the student adequate background for upper division study.

A. Recommended Courses (12 units recommended)

ANTH 2060. Introduction to Cultural Anthropology, 3 units ENGL 1500. Perspectives in World Literature, 3 units HIST 1010, 1020. Western Civilization, 6-8 units HIST 2050. Third World I, 4 units SOCL 1010. Introduction to Sociology, 3 units

B. Recommended Competencies

Library skills Reading knowledge of a foreign language

- II. Required Courses: Twenty-one units, distributed as below:
 - A. Analytical Studies (6 units, which must be taken in two different departments)

ANTH 3560. Old World Archeology, 3 units ANTH 4100. Studies in Social Anthropology, 2-4 units PHIL 4450. Philosophy of Religion, 3 units SOCL 4320. Sociology of Religion, 3 units

B. Historical Studies, 9 units

Religions in at least two different cultures must be studied, and at least one course must be taken which emphasizes non-Christian religion (HIST 3110, 3890, 4870, or, when applicable, 4960). When research projects or analytical studies are required in the below courses, the

History

student is to pursue topics which center on religious studies (copies of the results will be kept by the adviser until the student has completed his minor or concentration).

HIST 3110. Ancient Mediterranean World I, 4 units

HIST 3120. Ancient Mediterranean World II, 4 units

HIST 3140. Medieval Europe I, 3 units HIST 3150. Medieval Europe II, 3 units

HIST 3210. Renaissance and Reformation, 3 units

HIST 3890. The Oriental Mind, 3 units

HIST 4660. American Religious History, 3 units HIST 4870. History of Religion in Africa, 3 units

HIST 4960. Directed Reading in History, 3 units

C. Electives upon Advisement, 6 units

Courses listed above or courses approved by the adviser and meeting the following criterion: major emphasis is given to the history or analysis of man's religious experience. Such courses may be used to substitute for the above lists upon approval of the adviser.

HISTORY HONORS PROGRAM: RECOMMENDED AND REQUIRED COURSES

The honors candidate must fulfill the following requirements in addition to the major described above:

Two additional courses in European and one additional course in non-Western history, with the following qualifications:

- The European courses must include one course from each of 1. the following groups: HIST 3110, 3120; and HIST 3140, 3150, 3210, and 3220.
- The non-Western courses must include at least one course 2. from the following list: HIST 3510, 3800, 3860.
- The courses taken to fulfill the non-Western requirement may be taken in two separate geographic areas, but not more than two.

Pass a senior examination covering course work and reading undertaken in the history major.

Three courses in liberal arts outside of history.

Reading knowledge of an appropriate foreign language.

DEGREE MINOR IN HISTORY

Eighteen units in history, of which 12 units must be upper division history courses. All but Winter Term courses are to be taken ABCDF.

The courses for the degree minor in history are to be selected in consultation with and are to be approved beforehand by the minor adviser.

TEACHING CREDENTIALS

History majors interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.

LIBERAL STUDIES CONCENTRATION IN HISTORY

The Liberal Studies Concentration in History consists of 20 units, at least 17 of which must be upper division units, chosen from both Western (American and European) and non-Western courses, in approximately equal amounts, by advisement.

MASTER OF ARTS DEGREE

Applications for admission to the Master of Arts program in history and for advancement to candidacy should be filed in the office of the Department of History. Each student admitted to the program will be assigned an adviser whom the student will consult in planning his program.

Prerequisites for Admission to the Program

Twenty-four units of upper division history to include HIST 4990, Senior Thesis, or equivalent.

A grade point average of 3.0 in the undergraduate major. Satisfactory performance in the Aptitude and History sections of the Graduate Record Examinations.

Reading knowledge of an appropriate foreign language as determined by the Department of History, or 9 units of supporting courses on the 4000- and 5000-levels from other departments, as approved by the candidate's committee.

Students may at times be admitted to the college for graduate work without completion of the last two requirements, at the discretion of the Department, if there is satisfactory evidence of plans for prompt completion of the requirements.

REQUIREMENTS FOR THE DEGREE

Completion of at least 15 units from the following upon advisement:

HIST 5900. Graduate Studies (4) (two sections required of all candidates)

HIST 5930. History of Historical Writing (4) (required of all candidates)

HIST 5980. Individual Study

HIST 5990. Thesis

Fifteen additional units selected from the above 5000-level courses or from approved 4000-level courses, upon advisement.

History

Demonstration of knowledge of subject matter as well as competence in the following four skills:

Working knowledge of the seminal works Ability to perform research operations Analytical skills Literary skills

This competence will be evaluated by the candidate's committee by means of a comprehensive written examination covering all graduate work, by a Graduate Committee judgment on all research papers or analytical studies submitted to fulfill program requirements, and by any other suitable means.

Additional Requirements: at least 24 units must be taken in residence; at least 15 of these units are to be completed after admission to classified graduate standing.

No course work below "B" grade level will be accepted in fulfilling any M.A. requirements. If the candidate earns less than a "B" average in any single semester, departmental review of the candidate's eligibility is mandatory. Withdrawal of candidacy may result.

COURSE DESCRIPTIONS

Lower Division

HIST 1010. Western Civilization I (3)

Intellectual, political, and social history of Western man from the earliest civilizations to 1500. Examination of man's past efforts to organize his society, to understand the nature of his universe, and to interpret the riddle of human destiny.

HIST 1020. Western Civilization II (3)

Continuation of HIST 1010. The modern world since 1500.

HIST 2050. Third World I (4)

An integrated history of the premodern civilizations of Africa, the Americas, East Asia, and the Middle East, stressing comparisons of socio-economic patterns, governmental theory and practice, and intellectual traditions.

HIST 2060. Third World II (4)

An integrated history of the civilizations of Africa, the Americas, East Asia, and the Middle East, focusing on a comparative analysis of their struggles for liberation and independence.

HIST 2600. Problems in U. S. History (3)

Conflicting interpretations of crucial issues in ${\tt U.\ S.}$ History.

HIST 2900. Library Resources and Bibliographical Control for Historical Research (2)

Survey of abstracts, bibliographies, biographical directories, book review indexes, dictionaries, documents, encyclopedias, and indexes for historical research; and the application of footnote and bibliographical methods for history majors.

HIST 2950. Selected Topics in History (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of history. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

HIST 2970. Selected Topics offered during Winter Term (4)

Upper Division

HIST 3000. Introductory Seminar in History (3)

Introduction to the study of history as a discipline, with focus on a major historical work. The circumstances under which the work was produced will be examined through reading, class discussion, and individual work with the instructor. (Formerly 299)

HIST 3090. Contemporary World History (3)

Integrated global history of mankind since 1945. The aftermath of World War II, the Cold War, the collapse of colonial empires, the impact of the death of Stalin, the youth revolution, Sino-Soviet rivalry, and U.S.-Soviet detente. Prerequisite: Sophomore standing.

HIST 3110. Ancient Mediterranean World I (4) *

From early Sumer to Alexander the Great. Prerequisite: Sophomore standing. HIST 1010 or 2050 recommended.

HIST 3120. Ancient Mediterranean World II (4) *

The Hellenistic Age, Roman Republic and Empire, and the triumph of Christianity. Prerequisite: Sophomore standing. HIST 3110 recommended.

^{*}Not offered 1975-76

History

HIST 3140. Medieval Europe I (3)

Western Europe as an underdeveloped area from the fading of Roman rule to 1100. Prerequisite: Sophomore standing. HIST 1010 recommended.

HIST 3150. Medieval Europe II (3)

Western Europe from 1100 to 1500. Prerequisite: Sophomore standing. HIST 1010 recommended. HIST 3140 should precede HIST 3150 when possible.

HIST 3210. Renaissance and Reformation (3) *

European social, political, economic, and intellectual changes from the late middle ages to 1598: the Renaissance state; Renaissance humanism; the Reformation; social impact of the Reformation. Prerequisite: Sophomore standing.

HIST 3220. Absolutism and Revolution, 1598-1799 (3)

European social, political, economic, and intellectual changes: royal absolutism; the scientific revolution; seventeenth-century revolutions; the Enlightenment; the French Revolution. Prerequisite: Sophomore standing.

HIST 3230. Nineteenth Century Europe (3)

Democratization in the age of nationalism; Napoleon to Sarajevo. Prerequisite: Sophomore standing.

HIST 3240. Twentieth Century Europe (3)

Origins of World War I, the war, the uneasy peace, the democracies and the dictators between the wars, World War II, and the Cold War. Prerequisite: Sophomore standing.

HIST 3250. Eastern Europe Since 1453 (3)

A survey of Europe between the German lands and Russia from the period of medieval and early modern sovereignty through national subjection to independence and communism. Prerequisite: - Sophomore standing.

HIST 3300. History of Western Christianity (3) **

A survey of the development of Christianity from the age of Constantine to the present. Emphasis will be placed on Christian thought, Christian institutions, and the relationship between

^{*}Not offered 1975-76

^{**}Offered in 1975 Summer Session

Christianity and society in Western history. Prerequisite: Sophomore standing.

HIST 3510. Latin America in Colonial Times (3)

A survey of Latin American History: native Indian cultures, European conquests and resulting cultural conflict, Spanish and Portuguese rule, and trends in colonial society. Prerequisite: Sophomore standing.

HIST 3520. Latin American States Since Independence (3)

From the struggle for independence to the mid-twentieth century. (Formerly 252) Prerequisite: Sophomore standing.

HIST 3610. Colonial America (3)

The Anglo-American colonies of the North American mainland; from their foundation through their maturation and struggle for independence to their emergence as the United States of America. Prerequisite: Sophomore standing.

HIST 3620. Ante-Bellum America (3)

United States, 1789-1865. Founding of the Union through the Civil War; quest for cultural independence; interaction of popular democracy and economic growth; slavery, sectionalism and nationalism. Prerequisite: Sophomore standing.

HIST 3630. America After the Civil War (3)

United States, 1865-1914. Reconstruction through Progressivism: development of a complex urban-industrial society; coming of world power. Prerequisite: Sophomore standing.

HIST 3640. Contemporary America (3)

United States since 1914. World War I to the present: America's role as a great power; problems of welfare capitalism. Prerequisite: Sophomore standing.

HIST 3670. California History (3)

Spanish exploration and settlement; environment; political, economic, and social developments which give California its unique character. Prerequisite: Sophomore standing.

HIST 3710. Mexican-American History (3)

The role of the Mexican-American in the 19th and 20th centuries with emphasis on the modern period. Prerequisite: Sophomore standing.

History

HIST 3730. Afro-American History (3)

The development of the Black community in the United States. African origins, American slavery, Reconstruction, the foundations of the Black community in modern America, and the struggle for Black identity. Prerequisite: Sophomore standing.

HIST 3800. East Asia in Traditional Times (3)

Origins and development of the principal institutions and cultural patterns of China, Japan, and Korea from earliest times to the nineteenth century. Prerequisite: Sophomore standing.

HIST 3810. East Asia in the Modern World (3)

Disintegration of the traditional civilizations of China, Japan, and Korea under the impact of the West, and the subsequent quest for reintegration and adjustment to the West since the nineteenth century. (Formerly 281) Prerequisite: Sophomore standing.

HIST 3850. China and the United States (3)

A comprehensive survey of the economic, political, and cultural relations between China and the United States from the 18th century to the present. Prerequisite: Sophomore standing.

HIST 3860. Africa Before 1800 (3)

Historical development of social, political and economic institutions of traditional African societies and relations with classical antiquity, Asia, Europe and America. (Formerly 286) Prerequisite: Sophomore standing.

HIST 3870. Africa, 1800-1945 (3)

Establishment of 19th century state systems, the economic, cultural and ideological context of African resistance movements and their later reactions to the colonial situation. (Formerly . 287) Prerequisite: Sophomore standing.

HIST 3880. Contemporary Africa, 1945 to the Present (3)

The interplay of historical forces leading to the decolonization of Africa, the reorganization of African state systems and Africa's participation in world affairs. (Formerly 386) Prerequisite: Sophomore standing.

HIST 3890. The Oriental Mind (4)

Historical survey of the major works of Chinese and Japanese

thought illustrating the main tenets and evolution of Confucianism, Taoism, Buddhism, Shintoism, and Maoism. Prerequisite: Sophomore standing.

HIST 4030. Age of Exploration (3)

Exploration since Henry the Navigator; search for gold and spices. Establishment of trading factories and mercantilist colonies in Asia and Africa. Fall of the old colonial empires. Prerequisite: One year of college-level history or consent of instructor.

HIST 4040. Rise and Fall of European Colonial Systems, 1830-1965
(3) *

New colonialism of the 19th century in Asia and Africa and its collapse in the 20th century. Prerequisite: One year of college-level history or consent of instructor.

HIST 4210. European Intellectual History: Renaissance to the Present (3)

A study of the major ideologies in modern Europe and the means by which these ideologies were institutionalized. Prerequisite: One year of college-level history or consent of instructor.

HIST 4310. Modern Spain (3) *

A broad political, economic and social survey: expansiveness of Castile; economic and social consequences of world role; Bourbon reformers, responses to Napoleonic interference; 19th and 20th century struggles to define a modern identity. (Formerly 420) Prerequisite: One year of college-level history or consent of instructor.

HIST 4330. Modern France (3)

Development of the French nation, with emphasis on the period since 1870. (Formerly 435) Prerequisite: One year of college-level history or consent of instructor.

HIST 4340. Modern Germany (3) *

The problem of German disunity since the Reformation. The rise of Prussia, romanticism and German nationalism, World War I, Hitler and World War II, the partition of Germany since 1945. (Formerly 440) Prerequisite: One year of college-level history or consent of instructor.

^{*}Not offered 1975-76

History

HIST 4350. England to 1603 (3)

Political and constitutional history from the Anglo-Saxon invasion to the creation of a modern nation state. (Formerly 445) Prerequisite: One year of college-level history or consent of instructor.

HIST 4360. Modern Britain, 1603 to the Present (3) *

Political, social, and intellectual developments from the Stuart era to the present. (Formerly 446) Prerequisite: One year of college-level history or consent of instructor.

HIST 4420. Russia to 1917 (3)

Russia from earliest times to the revolutions of 1917. Prerequisite: One year of college-level history or consent of instructor.

HIST 4430. Soviet Russia (3)

Russia and the Soviet Union from the revolutions of 1917 to the end of the Khrushchev era. (Formerly 442) Prerequisite: One year of college-level history or consent of instructor.

HIST 4500. History of Mexico (3)

From independence to the mid-twentieth century. Prerequisite: One year of college-level history or consent of instructor.

HIST 4600. American Diplomatic History (3)

U.S. foreign relations from the colonial period to the present. (Formerly 470) Prerequisite: One year of college-level history or consent of instructor.

HIST 4640. Constitutional History of the United States (3)

The theory of limited government, and how the American people have applied it. (Formerly 474) Prerequisite: One year of college-level history or consent of instructor.

HIST 4660. American Religious History (3)

American religious institutions and thought from colonial origins to the present; importance of European backgrounds and American environment in producing a unique American religious tradition; impact upon social and cultural development. (Formerly 476) Prerequisites: Junior standing and two courses in American history.

^{*}Not offered 1975-76

HIST 4680. American Intellectual and Social History (3)

Impact of European experience and American environment; impact on the cultural milieu of industrialism, urbanism and U.S. world involvement. (Formerly 478) Prerequisite: One year of collegelevel history or consent of instructor.

HIST 4800. Modern China (3)

Analysis of the main trends of nineteenth and twentieth century imperialism in China and the consequent rise of Chinese anti-imperialism; main features of China's socio-economic system and the gradual development of reform movements culminating under the People's Republic. Prerequisites: Junior standing and one year of college-level history.

HIST 4840. Modern Japan (3)

Development of Japan from a feudalistic society of the early nineteenth century to a major world power in the present day. Emphasis will be on the conflicting themes of authoritarianism and liberalism. Prerequisites: Junior standing and one year of college-level history.

HIST 4860. North Africa (3) *

Morocco, Algeria, Tunisia, and Libya during the nineteenth and twentieth centuries. Colonial rule, independence movements, and the political and social structures of the states which evolved. Prerequisite: One year of college-level history or consent of instructor.

HIST 4870. History of Religion in Africa (3)

Historical study of African religious systems, their impact on African political theory, their socio-economic dimensions, and their interaction with Islam and Christianity. (Formerly 467, 487 and 488) Prerequisite: One year of college-level history or consent of instructor.

HIST 4950. Selected Topics in History (Topics to be specified in Class Schedule) (1-5)

Innovative course of study. Different topics may be taken for credit. Prerequisite: Consent of instructor.

HIST 4960. Directed Reading Seminar in History (3)

Reading on a theme or period of the student's choice. Prerequisite: Consent of instructor.

^{*}Not offered 1975-76

History

HIST 4970. Selected Topics offered during Winter Term (4)

HIST 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

HIST 4990. Senior Thesis (Topics to be specified in Class Schedule) (4)

Methodology of history. Research techniques applied to investigation of original source material. May be repeated for a maximum of 8 units. Prerequisites: Senior standing, advanced course work in history, and consent of instructor. Under exceptional circumstances, juniors may be admitted.

Graduate

HIST 5900. Graduate Studies (4)

Reading of major secondary works or intensive original research in American or European history, as designated in the Class Schedule. Prerequisites: Advanced course work in American or European history as appropriate, and consent of instructor.

HIST 5930. The History of Historical Writing (4)

The problem of reproducing and analyzing the past as seen through the eyes of major historians and philosophers of history from earliest times to the present. Prerequisite: Advanced course work in history.

HIST 5950. Selected Topics in History (Topics to be specified in Class Schedule) (1-5)

Innovative course of study. Different topics may be taken for credit. Prerequisite: Consent of instructor.

HIST 5970. Selected Topics offered during Winter Term (4)

HIST 5980. Individual Study (1-4)

For qualified graduate students in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

HIST 5990. Thesis (3-6)

Thesis research. Prerequisite: Consent of instructor.

International Studies

A Concentration Within the Social Sciences Major

Steven W. Hughes, Ph.D., Director

The International Studies program provides a framework of study for those students interested in the interrelations of nations and peoples. Because these interrelations are complex and operate at different levels (economic, political, military, cultural, etc.), a student must be selective with regard to the areas to be investigated. Thus the focus of a student's course work in this concentration may be on a particular area (Europe, Africa, the Middle East, Latin America, etc.), or on international problems (economic, political, diplomatic, etc.), or on international organizations and their functions, or aspects of intercultural communication, etc. To identify the most appropriate pattern of courses, the student will prepare his program in close consultation with the program director. The director should also be consulted regarding career opportunities.

REQUIREMENTS FOR THE BACHELOR OF ARTS, SOCIAL SCIENCES, WITH A CONCENTRATION IN INTERNATIONAL STUDIES

- Complete the requirements for the Bachelor of Arts degree.
- Complete the general prerequisite: one lower division research methods course in the field of his major interest. These include PSYC 2020, SOCL 2030, PSCI 2000, HIST 2900. Students in other fields will take PSYC 2020 or SOCL 2030.
- 3. Complete the major of not less than 32 upper division units, as approved by the adviser, and distributed as follows:
 - 4 courses in the field of the student's major interest
 - 3 courses in a second field
 - 3 courses in a third field
 - 1 Social Sciences Interdisciplinary Seminar
 - 11 courses of not less than 32 upper division units; of these no more than 8 units of Winter Term CR graded course work may apply toward the major.
- 4. Completion of a minor is not required.

RULES FOR SELECTION OF COURSES

1. ANTHROPOLOGY. Prerequisite: ANTH 2060, Introduction to Cultural Anthropology, 3 units



Upper Division Courses:

- ANTH 3050. Cultures of the Middle East, 3 units
- ANTH 3060. Australia and Oceania, 3 units
- ANTH 3070. Sub-Saharan Africa, 3 units
- ANTH 3100. East and South Asia, 3 units
- ANTH 3110. Peoples of the Soviet Union, 3 units
- ANTH 3370. Native Peoples of Mexico, 3 units
- ANTH 3380. Native Peoples of Central & South America, 3 units
- ANTH 4010. Culture and Personality, 3 units
- ANTH 4060. Anthropological Linguistics, 4 units
- ANTH 4100. Studies in Social Anthropology, 2-4 units
- ANTH 4200. Applied Anthropology & Social Change, 4 units
- ANTH 4210. Cultural Dynamics, 3 units
- ANTH 4980. Individual Study, 1-4 units
- ECONOMICS. Prerequisite: ECON 2500, Principles of Economics I, or equivalent, 4 units

Upper Division Courses:

- ECON 4000. Intermediate Theory (Macroeconomics), 3 units
- ECON 4010. Economic Thought, 3 units
- ECON 4050. Comparative Economic Systems, 3 units
- ECON 4160. Economic History of Europe, 3 units
- ECON 4200. Intermediate Theory (Microeconomics), 3 units
- ECON 4400. Economic Development, 3 units
- ECON 4410. International Trade, 3 units
- ECON 4420. Soviet Economics, 3 units
- ECON 4450. Economic Planning, 3 units
- ECON 4540. Public Finance & Fiscal Policy, 3 units
- ECON 4980. Individual Study, 1-4 units
- 3. GEOGRAPHY. Prerequisite: One of the following:
 - GEOG 2010. Introduction to Physical Environment, 3 units
 - GEOG 2020. Introduction to Cultural Geography, 3 units
 - GEOG 2400. World Regional Geography I, 3 units
 - GEOG 2410. World Regional Geography II, 3 units

Upper Division Courses:

- GEOG 3020. Human Ecology, 3 units
- GEOG 3300. Economic Geography, 3 units
- GEOG 3550. Geography of Europe, 3 units
- GEOG 3570. Geography of the Soviet Union and Its Satellites, 3 units
- GEOG 3590. Geography of Asia, 4 units
- GEOG 4200. Geography of Developing Areas, 3 units
- GEOG 4300. Geography of Resource Planning, 3 units
- GEOG 4980. Individual Study, 1-4 units

Prerequisite: One year of lower division history, HISTORY. United States History, Western Civilization, or non-Western History.

Upper Division Courses:

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HIST 3000.
            Introductory Seminar in History, 3 units
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HIST 3090. Contemporary World History, 3 units

HIST 3230. 19th Century Europe, 3 units

HIST 3240. 20th Century Europe, 3 units

HIST 3250. Eastern Europe Since 1453, 3 units

HIST 4040. Rise & Fall of European Colonial Systems, 1830-1965, 3 units

European Intellectual History: Renaissance HIST 4300. to the Present, 3 units

HIST 4310. Modern Spain, 3 units

HIST 4330. Modern France, 3 units

HIST 4340. Modern Germany, 3 units

HIST 4360. Modern Britain, 1603 to the Present, 3 units

HIST 4420. Russia to 1917, 3 units HIST 4430. Soviet Russia, 3 units

HIST 4600. American Diplomatic History, 3 units

HIST 4960. Directed Reading Seminar in History, 3 units

Non-Western:

HIST 3510. Latin America in Colonial Times, 3 units

HIST 3520. Latin American States Since Independence, 3 units

HIST 3800. East Asia in Traditional Times, 3 units

HIST 3810. East Asia in the Modern World, 3 units

HIST 3860. Africa Before 1800, 3 units

HIST 3870. Africa 1800-1945, 3 units

HIST 3880. Contemporary Africa, 1945 to the Present, 3 units

HIST 3890. The Oriental Mind, 4 units

HIST 4800. Modern China, 3 units

HIST 4840. Modern Japan, 3 units

HIST 4860. North Africa, 3 units

HIST 4870. History of Religion in Africa, 3 units

HIST 4980. Individual Study, 1-4 units

5. POLITICAL SCIENCE. Prerequisite: PSCI 1200, American Government, 3 units

> Comparative Politics: Europe, 3 units PSCI 3400.

Comparative Politics: Latin America, 4 units PSCI 3410.

PSCI 3420. Comparative Politics: East Asia, 4 units

PSCI 3450. Comparative Politics: USSR & Eastern Europe 3 units

PSCI 3460. Politics of the Developing Areas, 4 units

PSCI 3600. International Relations, 4 units

International Studies

- PSCI 3620. Soviet Foreign Policy, 3 units
- PSCI 4420. Comparative Bureaucracies, 3 units
- PSCI 4440. Elites and Public Policy in Latin America, 3 units
- PSCI 4610. National Security I, 3 units
- PSCI 4620. National Security II, 3 units
- PSCI 4630. Inter-American Affairs, 3 units
- PSCI 4980. Individual Study, 1-4 units
- SOCL 1010, Introduction to SOCIOLOGY. Prerequisite: Sociology, 3 units

Upper Division Courses:

- SOCL 3200. Social Change, 3 units
- Population & Demography, 4 units SOCL 3420.
- Sociology of Religion, 3 units Political Sociology, 3 units SOCL 4320.
- SOCL 4400.
- SOCL 4510. Personality, Culture and Social Structure, 3 units
- Industrial Sociology, 3 units SOCL 4600.
- Individual Study, 1-4 units SOCL 4980.

Liberal Studies

Max C. Norton, Ph.D., Professor of Speech and Communication Science, Coordinator

The Bachelor of Arts degree program is an interdisciplinarybased curriculum which is designed to provide the student with the opportunity to pursue a liberal education in the following academic areas: Social Sciences, Mathematics-Science, Arts-Humanities, and English-Speech.

The Bachelor of Arts degree fulfills the following career objectives:

- It provides the academic major prerequisite for students 1. who are planning to pursue teaching careers leading to credentials to teach in elementary schools.
- 2. It provides an interdisciplinary-based degree program for students who are pursuing professional careers and occupations requiring an interdisciplinary background in the liberal arts. In addition to providing a strong interdisciplinary background, it provides the student the opportunity to develop a program concentration in a single academic discipline.

REQUIREMENTS FOR THE BACHELOR OF ARTS, LIBERAL STUDIES Units Required 1. Basic Liberal Studies Area Requirements Social Sciences (see list below) Α. Mathematics-Science (see list below) 18 English-Speech (see list below) This pattern of courses satisfies the general education requirements for the degree. No minor is required. For other requirements see "General Requirements for Degrees." Completion of a Concentration 20 A concentration shall include 20 units, at least 15 of which must be in the upper division. The concentration must be selected from the following list of single disciplines.

		Dielegiaal Coissan	Philosopher
		Biological Sciences	Philosophy
		Chemistry	Physical Education
		Child Development	Physical Sciences
		Drama	Physics
		Economics	Political Science
		English	Psychology
		French	Sociology
		Geography	Spanish
		German	Speech
		History	
	3.	Completion of six additional disciplines of the Areas A, excluding the area which concentration	B, C, and D,
	4.	Upper Division Electives .	24
		Students may utilize these of the other academic major. College, as a second major, distribute them as broadly Students electing to complemultiple subject credential must use these units for princluding student teaching to complete a permanent multiple complete a permanent multiple within five year division electives to complemental within five year division electives to complemental major.	units to complete one s offered by the or may choose to as they choose. te a preliminary within four years rofessional education, Students electing tiple subject s may use the upper
	5.	Health and Physical Educati	on 2
		Minimum Total Units F	dequired 124
OPT:	CONS	AVAILABLE	
1.		achelor of Arts in Liberal outlined.	Studies with a concentration
2.	Back line site pre- comp sect seme sion	nelor of Arts in Liberal Studed, and also complete his press and student teaching with liminary credential. The function of a fifth year of stion on Education.) Under the ster units of the fifth year all education. Since the reservant	all credential is awarded upon tudies. (See the Catalog his option, no more than 15 or may be required in profes-

Music

Anthropology

Art

Liberal Studies

bachelor's degree in any other major offered by the College. (See "Requirements for an Additional Baccalaureate Degree" in the Catalog.)

3. A multiple subject credential candidate may complete a major in Liberal Studies with a second academic major rather than a concentration by postponing the completion of one's professional education courses until his fifth year. This option should be considered by students pursuing advanced degrees in academic areas.

LIBERAL STUDIES AREA A

SOCIAL SCIENCES 1. PSCI 1200. American Government HIST 3610. Colonial America HIST 3620. Ante-Bellum America HIST 3630. America After Civil War HIST 3640. Contemporary America 4. Anthropology or Geography: One of the following ANTH 2000. Cultural Profiles: An Introduction to Peoples of the World ANTH 2060. Introduction to Cultural Anthropology GEOG 2400. World Regional Geography I GEOG 2410. World Regional Geography II 5. Additional work selected from the social sciences upon advisement 6 LIBERAL STUDIES AREA B MATHEMATICS - SCIENCE Units Mathematics I, II, 6 units *BIOL 1010, 1030. Principles of Biology, Lec & Lab, 4 units *CHEM 1000. Chemistry in the Modern World, 3 units PHYS 1500. Energy & Matter, Lec & Lab, 3 units

^{*}Environmental topics will be emphasized in these courses.

	Libera	ii Stuaie
2.	One course from the following	Units
2.	ASTR 2100. Descriptive Astronomy, 3 units *BIOL 2650. Environmental Biology, 2 units GEOL 2100. Principles of Geology, 3 units *PHSC 1300. Environmental Pollution, 2 units	. 2-3
	Tota1	18-19
	LIBERAL STUDIES AREA C	
	ARTS - HUMANITIES	•• • .
1.	Three units from each of the following areas ART 1000. Drawing, 3 units or ART 2100. Art History Survey I, 3 units DRAMA 1010. Introduction to Theatre, 3 units FOR. LANG: FREN 3930 or GERM 3930 or SPAN 3930 Literature in Translation, 3 units MUS 1190. Music Fundamentals, 3 units	Units 12
2.	Three units elected from one of the following areas ART 1010. Drawing I, or an additional art history course, 3 units DRAM 2300. Theatre Workshop, 1-2 units DRAM 2350. Rehearsal and Performance, 3 units FOR LANG: An additional 3930 course, 3 units MUS 1000. Introduction to Music, 3 units PHIL 1010. Introduction to Philosophy, 3 units or PHIL 1100. Logic, 3 units	. 3
3.	PHIL 3000. Humanistic Inquiry	3
	Total	. 18
	LIBERAL STUDIES AREA D	
	ENGLISH - SPEECH	
1.	Core Requirements	Units 12-13
	SPCH 3010 Language & Speech Development .3 units	

^{*}Environmental topics will be emphasized in these courses.

Liberal Studies

2.	Additional unit	s to be selected from the following Unit:					
۷.	Additional units to be selected from the following courses upon advisement						
		visement 4-5 Critical Approaches to Literature,					
	ENGL 2010.	3 units					
	ENCT 3800	Introduction to Linguistics, 3 units					
		Intro. to Historical Linguistics, 3 units					
		Children's Literature, 3 units					
		Adolescent Literature, 3 units					
		Oral Interpretation, 3 units 3910. Speech Activities, 2 units					
		Phonetics, 3 units					
		General Semantics, 3 units					
		Oral Interpretation of Children's					
	ordir 5400.	Literature, 3 units					
SPCH 3410.		Oral Interpretation of Literature, 3 units					
		Total					
		LIBERAL STUDIES AREA E					
	HE	ALTH - PHYSICAL EDUCATION					
1. 2.		1th in Today's Society					
		Total 2					

Marine Sciences

MOSS LANDING LABORATORIES

The California State University and Colleges operate the Moss Landing Marine Laboratories at Moss Landing, California. This marine facility functions as a seaside extension of the campuses of six cooperating State University and Colleges (Stanislaus, Fresno, Hayward, Sacramento, San Francisco, and San Jose) and offers course work in marine biology, geology, meteorology, oceanography, and other marine sciences. 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 California State College, Stanislaus.

Interested students should make early application because enrollment is limited. Consult advisers in the Department of Biological Sciences or Department of Physical Sciences for further details or write to the Director, Moss Landing Marine Laboratories, P. O. Box 223, Moss Landing, California 95039.

COURSE DESCRIPTIONS

MSCI 3010. General Oceanography (4)

An interdisciplinary examination of physical and chemical characteristics of seawater, distribution and effects of ocean currents, waves and tides, geology of the ocean floor and relations of organisms to the marine environment. (Lecture, 3 hours; lab or field, 3 hours) Prerequisites: College chemistry and mathematics, concurrent registration in MSCI 3020. (MLML 101)

MSCI 3020. Marine Science Techniques (3)

Introductory field and laboratory practice in the techniques for collection, analysis, and interpretation of data on the marine environment. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: College chemistry and mathematics, concurrent registration in MSCI 3010. (MLML 102)

MSCI 3030. 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. (Lecture, 2 hours, lab or field, 6 hours) Prerequisites: Ecology, statistics (or concurrent registration in MSCI 3040), or consent of instructor. (MLML 103)

Marine Sciences

MSCI 3040. Quantitative Marine Science (3)

The mathematical methods for the analysis of biological, chemical and physical data from the marine environment; experimental design, parametric and non-parametric statistics. (Lecture, 2 hours; lab or field, 3 hours) Prerequisite: College mathematics. (MLML 104)

MSCI 3050. Marine Science Diving (3)

Skin and scuba diving course; five ocean dives include underwater sampling and survey techniques. Successful completion gives NAUI and MLML certification. (No credit toward science major.) (Lecture, 1 hour; lab or field, 6 hours) Prerequisites: Upper division science major status, ability to pass swimming test. (MLML 105)

MSCI 3060. Scuba Marine Research (3)

Scuba techniques for ocean and estuarine environmental research; instruction and field projects in underwater navigation and mapping, temporary and permanent transect installation and analysis, tagging of invertebrates and fishes, and general underwater work. (No credit toward science major.) (Lecture, 1 hour; lab or field, 6 hours) Prerequisites: MSCI 3050 or equivalent and approval of interviewing board. (MLML 106)

MSCI 3110. 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 within these environments. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: College zoology or equivalent; MSCI 3030 recommended. (MLML 111)

MSCI 3120. Marine Birds and Mammals (4)

Systematics, morphology, ecology, and biology of marine birds and mammals. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: upper division college vertebrate zoology, MSCI 3110, or consent of instructor; MSCI 3030 recommended. (MLML 112)

MSCI 3130. Marine Ichthyology (4)

A description of the taxonomy, morphology, and ecology of marine fishes. Both field and laboratory work concentrate on the structure, function and habits of marine fishes and the ecological interaction of these fishes with their biotic and abiotic surroundings. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: College zoology or equivalent; MSCI 3110 or consent of instructor; MSCI 3030 recommended. (MLML 113)

MSCI 3210. Marine Invertebrate Zoology (4)

A field-oriented introduction to the anatomy, embryology, systematics, and evolution of the marine invertebrate groups; emphasis on field observation, identification, and systematics. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: College zoology or consent of instructor; MSCI 3030. (MLML 121)

MSCI 3220. Marine Invertebrate Embryology (4)

Survey of principles of development biology, concentrating on experimental evidence obtained using invertebrate material. Laboratory observations will cover the embryology of lower invertebrates, molluscs, crustacea, echinoderms, and protochordates. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: MSCI 3210, cell biology or biochemistry strongly recommended, or consent of instructor. (MLML 122)

MSCI 3230. Marine Invertebrate Physiology (4)

Comparative physiology of the invertebrates; laboratory problems or nutrition, respiration, cosmotic regulation, coordination, and other physiological functions. General principles of physiology will be discussed using examples from the invertebrate phyla. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: MSCI 3210, general physiology, or consent of instructor. (MLML 123)

MSCI 3310. Marine Phycology (4)

The biology of marine algae with emphasis on identification, life histories, ecology, and systematics. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: College Botany; MSCI 3030 recommended. (MLML 131)

MSCI 3320. Introduction to Marine Plankton (4)

Identification, distribution, and ecology of phytoplankton and zooplankton. Introduction to sampling and analytical procedures. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: MSCI 3010; 3030 recommended. (MLML 132)

MSCI 3410. Geológical Oceanography (3)

A study of the structures, physiography, and sediments of the sea bottom and shoreline. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3010 and 3020 (concurrent registration satisfactory) (MIML 141)

MSCI 3420. Marine Biogenic Sedimentation (3)

Interdisciplinary studies of the provenance, biologic, and geologic composition of marine sediments and of the organisms

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contributing to their formation; sedimentary processes affecting these sediments. (Lecture, 2 hours; lab or field, 3 hours). Prerequisites: MSCI 3010 and college geology and biology or consent of instructor. (MIML 142)

MSCI 3430. Coastal Geomorphology (3)

A geologic history and formation of the shoreline. (Lecture, 2 hours; lab or field, 3 hours) Prerequisite: Physical geology or physical geography. (MLML 143)

MSCI 3510. Marine Meteorology (3)

Introductory descriptive course in physical processes involved in wind-generated surface waves, currents, temperature structure, and near shore zones of the oceans. (Lecture, 2 hours; lab or field, 3 hours) Prerequisite: College algebra. (MLML 151)

MSCI 3710. Oceanographic Summer Cruise (4)

Oceanographic shipboard research in California coastal waters; preliminary selection of research topic, cruise logistics, shipboard instrumentation. Following the one-week cruise, samples will be analyzed and data interpretation will be presented as written reports. (Lecture, 2 hours; lab and field, 6 hours) Prerequisites: MSCI 3010, 3020, 3030, 3040. (MLML 171)

MSCI 3720. Marine Environmental Group Research (3)

Student involvement in scientific investigation; employment of scientific methodology and principles; literature surveys, experience in writing, and presenting research findings on specific projects. (Lecture, 1 hour; lab and field, 6 hours) Prerequisites: MSCI 3010, 3020, 3030, 3040. (MLML 172)

MSCI 4980. Individual Study (1-4)

Faculty-directed study of selected research problems; open to undergraduate students with adequate preparation. Prerequisite: Consent of instructor. (MLML 180)

Graduate

MSCI 5010. Concepts of Marine Science (3)

Study of the major principles and concepts of the marine sciences; analysis of outstanding researches from recent scientific literature. Development of laboratory exercises. The course is designed for updating knowledge of school teachers or for students working on teaching credentials. Not open to marine science majors. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3010 and 3030 or consent of instructor. (MLML 201)

MSCI 5020. Marine Instrumental Analysis (4)

Theory and use of advanced instrumentation; advanced field and laboratory techniques for the interpretation of data collected in marine Science research. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: MSCI 3010, 3020, and Quantitative Analysis. (MLML 202)

MSCI 5030. Advanced Marine Ecology (3)

Advanced considerations of marine populations, communities and ecosystems with emphasis on current literature. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3030 and consent of instructor; MSCI 3040 recommended. (MLML 203)

MSCI 5110. Behavior of Marine Animals (3)

The causation, development, and evolution of the behavior of marine animals. (Lecture, 2 hours; lab or field, 3 hours) Prerequisite: MSCI 3040 or statistics or consent of instructor. (MLML 211)

MSCI 5120. 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. (Lecture, 2 hours; lab and field, 6 hours) Prerequisites: MSCI 3110, 3120, or 3130 and consent of instructor. (MLML 212)

MSCI 5210. 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. (Lecture, 2 hours; lab and field, 6 hours) Prerequisites: MSCI 3210 and consent of instructor. (MLML 221)

MSCI 5220. Biology of the Mollusca (4)

Systematics, functional morphology, ecology, and physiology of the mollusca with emphasis on the marine forms. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: MSCI 3210 or consent of instructor. (MLML 222)

MSCI 5310. Advanced Marine Phycology (4)

Lecture-discussions in algal development, reproduction, and ecology. Extensive reading of original literature. Ecologically oriented individual research projects involving laboratory culture

Marine Sciences

and field experimentation. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: MSCI 3310 or consent of instructor. (MLML 231)

MSCI 5320. Advanced Marine Plankton (4)

Course emphasis on the physiology of phytoplankton and zooplankton. Students undertake individual research projects that include literature review, laboratory work, and oral and written reports. (Lecture, 2 hours; lab or field, 6 hours) Prerequisite: MSCI 3320. (MLML 232)

MSCI 5410. Marine Microorganisms (4)

A study of living and fossil microorganisms with emphasis on environmental significance. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: MSCI 3210 and college geology or consent of instructor. (MLML 241)

MSCI 5420. Continental Drift (3)

Historical background and modern theory of continental drift. Sea-floor spreading and general considerations on plate tectonics. (Lecture, 3 hours) Prerequisite: MSCI 3410 or consent of instructor. (MLML 242)

MSCI 5510. Marine Geochemistry (4)

Geochemical processes in the oceans: thermodynamics of low-temperature aqueous reactions, weathering, oxidation-reduction and biologically mediated reactions, processes occurring at the sea floor and air-sea interface. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: MSCI 3010, quantitative analysis, one year calculus, or consent of instructor. (MLML 251)

MSCI 5520. Topics in Marine Chemistry (4)

Selected topics dealing with the biochemistry or geochemistry of the oceans. May be repeated for credit. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: MSCI 3010 and consent of instructor. (MLML 252)

MSCI 5610. Descriptive Physical Oceanography (4)

The mathematical description of the distribution of properties (density, dissolved oxygen, etc.) in the oceans relating to physical and biochemical processes. Theory of distribution of variables, geotrophic method. (Lecture, 3 hours; lab or field, 3 hours) Prerequisite: Musci 3010, one year calculus or consent of instructor. (MLML 261)

MSCI 5710. Population Biology (3)

Principles of the interaction among marine organisms which result in the alteration of population structures; techniques for assessment and management of animal populations. (Lecture 2 hours; lab or field, 3 hours) Prerequisite: MSCI 3030, 3030, or consent of instructor. (MLML 271)

MSCI 5730. Environmental Studies of Monterey- Bay (3)

A research course in the 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. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3030, 3040, or consent of instructor. MLML 273)

MSCI 5770. Human Ecology of Monterey Bay (3)

Investigation and analysis of changes produced by human impacts on the coastal environment with emphasis on physiographic alterations and ecological implications. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 3010, 3030, or consent of instructor. (MLML 277)

MSCI 5850. Graduate Seminar in Marine Biology (2)

Seminar will be held on topics changing each semester. Each studen't will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. (MLML 285)

MSCI 5860. Graduate Seminar in Marine Geology (2)

Seminar will be held on topics changing each semester. Each student will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. (MLML 285)

MSCI 5860. Graduate Seminar in Marine Geology (2)

Seminar will be held on topics changing each semester. Each student will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. (MLML 286)

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MSCI 5870. Graduate Seminar in Oceanography (2)

Seminar will be held on topics changing each semester. Each student will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. (MLML 287)

MSCI 5980. Research in the Marine Sciences (1-4)

Independent investigations of an advanced character for the graduate student with adequate preparation. Prerequisite: Consent of instructor. (MLML 298)

Narendra L. Maria, Ph.D., Professor, Chairman James N. Javaher, Doctorat d'Université, Professor Shang-Wang Chang, Ph.D., Associate Professor Chester W. Dyche, M.A., Associate Professor Louis A. Feldman, Ph.D., Associate Professor Ralph L. James, Ph.D., Associate Professor Leonard P. D'Amato, Ph.D., Assistant Professor

The Department of Mathematics offers courses in computer science, mathematics, operations research, and statistics. Courses are designed to provide quality undergraduate training in the mathematical sciences and to serve the needs of majors in mathematics, the natural and social sciences, and other fields. The degree programs of the Department of Mathematics provide preparation for various careers in the mathematical sciences.

The department offers the degrees Bachelor of Arts, and Bachelor of Science, Mathematics. Both degree programs can be used to acquire preparation for various careers in business, education, government, and industry. Both degree programs can be used to acquire preparation for advanced study in mathematics and/or its applications. The Bachelor of Science degree program is oriented more towards the various applications of mathematics. A student may focus on a specific career objective in the applications of mathematics by completing one of the concentrations in the Bachelor of Science degree program. An Environmental Sciences concentration is also available for mathematics majors in either the Bachelor of Arts or Bachelor of Science program.

The degree programs presuppose seven semesters of high school level mathematics: algebra (2 years), plane geometry (1 year), and trigonometry (½ year); solid geometry and physics are desirable. Deficiencies may be made up by proper selection of courses in the lower division. Recommended courses in lower division supporting fields are one year of economic theory or one year of general physics.

The department also offers a concentration in Mathematics for the Bachelor of Arts degree in Liberal Studies.

REQUIREMENTS FOR THE BACHELOR OF ARTS OR THE BACHELOR OF SCIENCE IN MATHEMATICS

Mathematics majors are to:

- 1. Complete the college requirements for a backelor's degree.
- Complete prerequisites to the major.
- 3. Complete the major of not less than 24 upper division units as specified for the Bachelor of Arts degree or for the Bachelor of Science degree. No more than 8 units of Winter Term or CR graded course work may apply toward the major.

4. Completion of a minor is not required.

DEGREE MAJOR FOR THE BACHELOR OF ARTS, MATHEMATICS

	MATH 2000 MATH 2410). Int	roduct: tivari:	culus I, II, 8 units ion to Computers, 3 units ate Calculus, 4 units gebra & Differential Equations, 4 unit	s
The A	Aajor			Un	its
				year sequences of courses as adviser	16
	MATH	3250,	3260.	Ordinary Differential Equations, Partial Differential Equations, 8 units	
	MATH	3550.	3560.	Algebra I, II, 8 units	
				Analysis I, II, 8 units	
				s in mathematics as approved	8
			_	•	

DEGREE MAJOR FOR THE BACHELOR OF SCIENCE, MATHEMATICS

Prerequisites to the major:

MATH 1410, 1420. Calculus I, II, 8 units

MATH 2000. Introduction to Computers, 3 units

MATH 2010. Computer Programming, 2 units

MATH 2410. Multivariate Calculus, 4 units

MATH 2420. Linear Algebra & Differential Equations, 4 units

Additional prerequisite to the major with an elective concentration in Operations Research:

MATH 1610. Statistics for Decision Making, 3 units

Additional prerequisite to the major with an elective concentration in Statistics:

MATH 1600. Statistics, 4 units

The Major Units				
Two of the following year sequences of courses as approved by the major adviser				
MATH 3250, 3260. Ordinary Differential Equations, Partial Differential Equations, 8 units				
MATH 3650, 3660. Probability & Statistics I, II, 8 units				
MATH 4350, 4360. Numerical Analysis I, II, 8 units MATH 4450, 4460. Introduction to Operations Research I, II, 8 units				
Upper division courses in mathematics as approved by the major adviser				
Total				
ELECTIVE CONCENTRATIONS WITHIN THE DEGREE MAJOR FOR THE BACHELOR OF SCIENCE, MATHEMATICS				
A student who elects to have a concentration in Operations Research or Statistics may do so by completing the prerequisites to the major, the additional prerequisite to his elective concentration, the requirements for the major, and the requirements for this concentration.				
OPERATIONS RESEARCH CONCENTRATION				
Complete the requirements for the major so as to include:				
MATH 3200. Computer Simulation Techniques 3				
MATH 3550, 3560. Algebra I, II 8 MATH 4450, 4460. Introduction to Operations				
Research I, II				
Complementary study in operations research oriented, upper division courses as approved by the major adviser				
Total				
STATISTICS CONCENTRATION				
Complete the requirements for the major so as to include: Units				
MATH 3200. Computer Simulation Techniques 3 MATH 3650, 3660. Probability & Statistics I, II 8				

				Units
MATH 4150, 4160. Analysis I, II				8
Additional year sequence of courses from the requirements for the major				8
Complementary study in statistically oriented research methods upper division courses as				
approved by the major adviser \dots	•	•	•	6
Total				33

DEGREE MINOR IN MATHEMATICS

Eighteen units, including at least 10 units in upper division.

MATH 1410, 1420. Calculus I, II, 8 units Upper division courses in mathematics as approved by the minor adviser, 10 units.

ENVIRONMENTAL SCIENCES CONCENTRATION

A mathematics major may complete additional requirements in the sciences to qualify for a concentration in Environmental Sciences in addition to the bachelor's degree. This program requires study in biological sciences, chemistry, mathematics, and physical sciences, along with an environmental seminar and investigation of an environmentally related problem. Further details are found in the Environmental Sciences section of this catalog.

TEACHING CREDENTIALS

Majors in mathematics interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.

MATHEMATICS SUB-AREAS

COMPUTER SCIENCE

MATH 1150. BASIC Programming, 1 unit MATH 1200. Computers and Society, 3 units

^{*}MATH 1410, 1420. Calculus I, II, may substitute for MATH 1030, 1040 to fulfill Liberal Studies Area "B" requirements in mathematics.

MATH 2000. Introduction to Computers, 3 units

MATH 2010. Computer Programming, 2 units

MATH 3200. Computer Simulation Techniques, 3 units

MATH 4200. Programming Languages & Data Structures, 3 units

MATH 4350. Numerical Analysis I, 4 units

MATH 4360. Numerical Analysis II, 4 units

OPERATIONS RESEARCH

MATH 4450. Introduction to Operations Research I, 4 units MATH 4460. Introduction to Operations Research II, 4 units

STATISTICS

MATH 1600. Statistics, 4 units

MATH 1610. Statistics for Decision Making, 3 units

MATH 3650. Probability and Statistics I, 4 units

MATH 3660. Probability and Statistics II, 4 units

COURSE DESCRIPTIONS

Lower Division

MATH 1000. Math for Liberal Arts Students (3)

Sets, numeration systems, the systems of natural numbers, integers, rational numbers, and real numbers; selected topics from elementary number theory, probability, geometry, logic, and other areas of mathematics. Recommended for general students seeking an understanding of the nature of mathematics. Not open to students who have received credit for MATH 1410, MATH 1500, or their equivalent. Not applicable to the major or minor in Mathematics.

MATH 1030. Elementary Foundations of Mathematics I (3)

Elementary set theory, number systems, properties of real numbers, solutions of equations and inequalities. Recommended for students seeking an elementary teaching credential.

MATH 1040. Elementary Foundations of Mathematics II (3)

Continuation of MATH 1030. Functions and graphs, elementary probability and statistics, Euclidean geometry, measure, introduction to analytic geometry. Recommended for students seeking an elementary teaching credential. Prerequisite: MATH 1000 or MATH 1030.

MATH 1050. Basic College Algebra (3)

Exponents, fractions, radicals, elementary inequalities, polynomials, logarithmic and exponential equations, arithmetic and geometric series, binomial theorem. Prerequisite: One year of high school algebra or MATH 1000 or MATH 1030.

MATH 1100. Precalculus (3)

Coordinate systems, relations, functions, composite and inverse functions, introduction to analytic geometry, mathematical induction, circular and trigonometric functions, complex numbers, fundamental theorem of algebra. Prerequisite: Two years of high school algebra or MATH 1050.

MATH 1150. BASIC Programming (1)

An introduction to time-shared BASIC programming for all students. It will introduce elementary programming concepts and acquaint the student with interactive terminal usage.

MATH 1200. Computers and Society (3)

To give a basic knowledge of computers and their present use, and to explore implications for our society. Topics covered will include an introduction to computers and the BASIC programming language with emphasis on social, political, and philosophical implications. (Lecture, 2 hours; laboratory, 2 hours)

MATH 1410. Calculus I (4)

Inequalities, functions and graphs, limits and continuity, the derivative, differentiation of algebraic functions, applications of differentiation, the definite integral, conic sections.

Prerequisite: MATH 1100 or equivalent.

MATH 1420. Calculus II (4)

Trigonometric and exponential functions, parametric equations, through techniques of integration, applications of the definite integral, L'Hopital's rule, infinite series. Prerequisite: MATH 1410.

MATH 1500. Finite Mathematics (3)

Truth tables, deductive reasoning, algebra of sets, theory of partitions and counting, elementary probability theory, vectors and matrices, and application of matrix theory of Markov chains. Prerequisite: Two years of high school algebra or MATH 1050 or consent of instructor.

MATH 1600. Statistics (4)

Introductory course designed for students in the behavioral, biological, and social sciences. The description of sample data, probability and probability distributions, sampling and estimation, testing hypotheses, correlation and regression, introduction to analysis of variance. (Lecture, 3 hours; laboratory, 2 hours) Prerequisite: One year of high school algebra or MATH 1000 or MATH 1030.

MATH 1610. Statistics for Decision Making (3)

Introductory course for students in business administration. Organization and analysis of data, index numbers, elementary probability, distributions, sampling and estimation, correlation and regression, time series. Prerequisite: Two years of high school algebra or MATH 1050.

MATH 1910. Calculus with Applications I (3)

The fundamental concepts of calculus and their applications to problems in the behavioral, biological, chemical, decision, and social sciences will be introduced. Functions, graphs, limits, the derivative, applications of the derivative, definite integral. This course is not open to students who are seeking a Bachelor of Arts degree in mathematics, physical sciences, or physics; nor is it open to students seeking a Bachelor of Science degree in chemistry or mathematics. Prerequisite: MATH 1050.

MATH 1920. Calculus with Applications II (3)

Fundamental concepts of calculus and their applications to the behavioral, biological, chemical, decision, and social sciences will be introduced. Logarithmic and exponential functions, trigonometric functions, techniques of integrations, applications of the definite integral, introduction to calculus in higher dimensions. This course is not open to students seeking a Bachelor of Arts degree in mathematics, physical sciences, or physics; nor is it open to students seeking a Bachelor of Science degree in chemistry or mathematics. Prerequisite: MATH 1910 or MATH 1410.

MATH 2000. Introduction to Computers (3)

This course includes history of development, principles of operation, development of programming skills, actual and possible applications. The language used will be FORTRAN and/or BASIC. (Lecture, 2 hours; laboratory, 2 hours) Prerequisite: MATH 1050 or two-years of high school algebra.

MATH 2010. Computer Programming (2)

A continuation of MATH 2000 with emphasis on more sophisticated applications of programming and use of the capabilities of the computer. Laboratory projects will involve the student's area of interest when possible. (Lecture, 1 hour; laboratory, 2 hours). Prerequisite: MATH 2000 or equivalent.

MATH 2410. Multivariate Calculus (4)

Vectors in three dimensions, solid analytic geometry, partial differentiation, multiple integration, differentiation under the integral sign, vector field theory. Prerequisite: MATH 1420.

MATH 2420. Linear Algebra and Differential Equations (4)

Matrices and determinants, vector spaces, linear transformations; introduction to differential equations, linear systems with constant coefficients. Prerequisite: MATH 2410.

MATH 2950. Selected Topics in Mathematics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of mathematics. Topics vary each term. Different topics may be taken for credit. Prerequisites: Sophomore standing and consent of instructor.

MATH 2970. Selected Topics offered during Winter Term (4)

Upper Division

MATH 3000. History of Mathematics (3)

Origin and development of mathematical ideas from early civilizations to the present. Prerequisite: MATH 1420 or consent of instructor.

MATH 3060. Modern Geometry (3)

Euclid's geometry from the modern standpoint. The development and implications of non-Euclidean geometry. Prerequisite: MATH 1420.

MATH 3200. Computer Simulation Techniques (3)

Introduction to simulation, planning computer simulation experiments, simulation models. Simulation methodology, design of experiments, analysis of data, validation of models and results. Programming selected applications. (Lecture, 2 hours; laboratory, 2 hours) Prerequisites: MATH 1600 or 1610 or ECON 3200, and MATH 2000.

MATH 3250. Ordinary Differential Equations (4)

Linear ordinary differential equations, existence and uniqueness series solutions, special functions, Laplace transforms, systems of linear equations. (Formerly 321, 322) Prerequisite: MATH 1420.

MATH 3260. Partial Differential Equations (4)

Basic concepts, first order partial differential equations, classification of second order equations, initial value problems for wave equation, boundary value problems for Laplace and heat equations, maximum principle, existence and uniqueness theorems, applications. (Formerly 322, 323) Prerequisite: MATH 2410 or consent of instructor.

MATH 3550. Algebra I (4)

Group theory, subgroups, Lagrange's Theorem, morphisms, quotient groups, ring theory, quotient rings, ring morphisms, integral domains, fields, field of quotients, polynomial rings and Euclidean rings. Prerequisites: MATH 1420 and junior standing.

MATH 3560. Algebra II (4)

Vector spaces, subspaces, linear independence, dimension, field theory, extension fields, root fields, finite fields, dual space, annihilators, linear transforms, matrix of a linear transform, eigenvalues, eigenvectors, Jordan canonical form, matrices, equivalence of matrices, linear equations, determinants, characteristic equations and inner-product spaces. Prerequisite: MATH 3550.

MATH 3650. Probability and Statistics I (4)

Concept of probability; concepts of random variables, expected values, variance and covariance; continuous probability distributions, binomial distribution and its limiting cases, normal distribution and Poisson distribution, Markov chains. Prerequisite: MATH 1420 or consent of instructor.

MATH 3660. Probability and Statistics II (4)

Sampling and sampling distributions, decision theory, estimation, testing hypothesis, simple linear regression, queuing theory. Prerequisite: MATH 3650.

MATH 4150. Analysis I (4)

Real number system, sequences, limits, metric spaces, point set topology, continuity, differentiation, implicit and inverse function theorems. Prerequisite: MATH 2420.

MATH 4160. Analysis II (4)

Riemann-Stieltjes integral, sequences and series of functions, Weierstrass approximation theorem, Baire category theorem, Lebesgue measure and integration, convergence theorems. Prerequisite: MATH 4150.

MATH 4200. Programming Languages and Data Structures (3)

Formal definition of grammar and language symbols and strings. Syntax and semantics of simple statements and expressions, precedence operators and grammars, syntactic analysis of precedence grammars, structure of algorithmic languages, basic concepts of data, lists, arrays, trees, and graphs. Storage systems and structures, storage allocation and collection. Symbol tables,

searching and sorting techniques. Prerequisite: MATH 2010. MATH 3200 recommended.

MATH 4350. Numerical Analysis I (4)

Errors, power series computation of functions, numerical methods for solution of nonlinear equations, systems of linear equations, matrix inversion, the algebraic eigenvalue problem. Emphasis on methods appropriate for use with computers. Prerequisites: MATH 2000 and 2420.

MATH 4360. Numerical Analysis II (4)

Interpolation and approximation, numerical differentiation and quadrature, difference equations, solution of differential equations. Emphasis on methods appropriate for use with computers. Prerequisite: MATH 4350.

MATH 4450. Introduction to Operations Research I (4)

Vectors and matrices, classical optimization methods, theory of the simplex method, duality, post-optimal analysis. Prerequisites: MATH 1420 and 2000, or consent of instructor.

MATH 4460. Introduction to Operations Research II (4)

Special types of linear programming, network analysis, dynamic programming, game theory, advanced topics in linear programming, integer programming. Prerequisite: MATH 4450.

MATH 4500. Theory of Numbers (3)

Euclid's algorithm and fundamental theorems on divisibility, prime numbers, congruence of numbers, theorems of Fermat, Euler, and Wilson, congruence of first and higher degrees, Lagrange's theorem and its applications, quadratic residues. (Formerly 440) Prerequisite: MATH 1420.

MATH 4600. Complex Variables (3)

Complex numbers, analytic functions, Cauchy-Riemann equations, Cauchy theorem, Laurent series, calculus of residues, selected applications. Prerequisite: MATH 2410.

MATH 4840. Mathematics for Business (3)

Selected topics in mathematics which have special applications in business administration. Topics include: elementary set theory, limits, differentiation, integration, maxima-minima, linear systems, matrices. (Formerly BUS 484) Prerequisite: High school algebra or consent of instructor.

MATH 4950. Selected Topics in Mathematics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of mathematics. Topics vary each term. Different topics may be taken for credit. Prerequisites: Senior standing and consent of instructor.

MATH 4960. Seminar in Mathematics (2)

Presentation and discussions of selected topics in mathematics from the current literature. Prerequisite: Consent of instructor.

MATH 4970. Selected Topics offered during Winter Term (4)

MATH 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisites: Senior standing and consent of instructor.

MATH 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisites: Postbaccalaureate standing and consent of instructor.

Professional Postgraduate

MATH 6030, Foundations of Mathematics I (3)

Elementary set theory, mappings, elementary number theory, structure of the real number system, equations, and inequalities. Recommended for elementary teachers who hold the bachelor degree and who wish to qualify for the Standard Teaching Credential. (Formerly 600)

MATH 6040. Foundations of Mathematics II (3)

Metric and nonmetric geometry, introduction to analytic geometry, functions and graphs, mathematical systems, probability. Recommended for elementary and junior high school teachers seeking an advanced course in mathematics. (Formerly 601)

MATH 6980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisites: Postbaccalaureate standing and consent of instructor.

Multidisciplinary Studies

The College offers multidisciplinary courses outside the departmental and school structure. These courses are given the MDIS prefix.

COURSE DESCRIPTIONS

MDIS 2000. Library Resources for Contemporary Issues (1)

Library resources for research through investigation into contemporary issues such as energy crisis, impeachment, minorities, prison reform, and women's rights.

MDIS 2970. Selected Topics offered during Winter Term (4)

MDIS 3500. The Technological Society (3)

An interdisciplinary analysis of the social and ecological crises caused by the exponential growth of science and technology. The issues--population, energy, alienation, pollution, etc.--are examined on the global, national, and local levels.

MDIS 4960. Seminar in Technology and Society (3)

Reading, papers, and discussion on the societal, ecological, and philosophical issues raised by contemporary science and technology. Prerequisite: MDIS 3500 or consent of instructor.

MDIS 4970. Selected Topics offered during Winter Term (4)

Music

Joseph E. Bruggman, Ed.D., Professor, Acting Chairman Gene C. Wisler, Ed.D., Professor R. Scott Coulter, M.M., Associate Professor Sylvia M. Ghiglieri, M.M., Associate Professor Gary Unruh, D.M.A., Associate Professor William Gora, M.Ed., Assistant Professor

The Department of Music offers the degree Bachelor of Arts, Music. Completion of the major in music prepares a student to apply for admission to the credential program, to apply for graduate level study, or for professional work, dependent upon specific field of specialization and student interest. Emphasis is placed on the cultivation of individual student potential through study and experience in performance, theory, history, literature, and composition. Courses in music also provide cultural and aesthetic enrichment for the student in liberal arts.

REQUIREMENTS FOR THE BACHELOR OF ARTS, MUSIC

Music majors are to:

- 1. Complete requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- Complete the major of not less than 33 upper division semester units; of these no more than 11 units of CR graded course work may apply toward the major.
- 4. Completion of a minor is not required.

GENERAL REQUIREMENTS FOR MUSIC MAJOR AND MINOR

- Freshmen and transfer students contemplating a major in music are required to declare a major performing medium (voice, piano, or orchestral instrument) upon entering the program, and will take studio instruction in their major performing medium each semester of attendance. Fifthyear credential students are eligible for studio instruction in their major performing medium providing they participate in at least one major performing group in which their major performing medium is utilized.
- 2. Transfer students contemplating a major or minor in music are required to take proficiency tests in piano, singing, sightreading, ear training, theory, and major instrument. Students whose scores indicate a degree of inadequacy will be required to enroll in appropriate lower division courses until minimum standards are achieved.
- 3. Freshmen or lower division transfers will be evaluated during the final semester of the sophomore year. Students entering as transfers at the upper division level will be

Music

evaluated during the latter part of the first semester in which they enroll in music courses in the college. Evaluation will be based upon lower division course work completed in music, and auditions in the major performing mediums by a committee of the music faculty. Unless standards of performance acceptable to the music faculty have been attained, students may not enroll for upper division courses in music.

- Students are required to perform in recital each semester as part of a course in applied music as determined by the instructor.
- Music majors are expected to attend departmental recitals and concerts.
- 6. All music majors are required to demonstrate an acceptable level of performance skills in both piano and voice. Lower division students should fulfill these requirements by the end of the sophomore year. Students transferring in at the upper division level should complete these requirements by the end of the junior year. Class instruction is offered at the beginning level in both piano and voice. Students must consult their advisers for specific requirements.
- 7. The music major is required to participate in at least one major performing group (chorus, band, or orchestra) each term involving his major performing medium. Piano majors must consult their adviser regarding this requirement.
- At the conclusion of each term of study, music majors and minors will be expected to demonstrate proficiency on their instrument or in voice before a panel of faculty members.
- During the senior year all music majors are required to present themselves in solo or chamber ensemble recital.

DEGREE MAJOR IN MUSIC

Prerequisites to the Major

MUS 1020. Freshman Music Seminar, 1 unit

MUS 1220, 1230. Theory I, II, 8 units

MUS 2400, 2410, 2440. Major Group Performance, 4 units MUS 2610, 2640, 2670. Applied Music (major performing

, 2670. Applied Music (major performing medium), 4 units

MUS 2900, 2910. History and Literature I, II, 6 units Demonstrate proficiency in voice and piano (see #6 under "General Requirements for Music Majors and Minors").

	Music
The Major	Units
MUS 3220, 3230. Theory III, IV	. 3
Complete one of the following groups of courses	. 10
Choral/Voice Emphasis: MUS 3260. Analysis & Composition, 2 units MUS 4570. Vocal/Chord Literature Seminar, 3 units Electives as approved by major adviser, 5 units	
Instrumental Emphasis: MUS 3240. Orchestration, 2 units MUS 3290. Instrumental Conducting, 2 units MUS 3650, 3660. String Technique I, II, 2 units MUS 3670. Instrumental Techniques, 4 units	
Total	. 33
DEGREE MINOR IN MUSIC	
Twenty-five units, of which 8 units must be upper division	on.
Lower Division	Units
MUS 1000. Introduction to Music	. 3 . 8 . 6
Upper Division	

MUS 2620, 2630, 2670. Applied Music (may be fulfilled at upper division level by students who qualify at that level)	
per Division	
MUS 3300. Music Literature I	
or MUS 3380. Music History & Literature III	3
MUS 3400, 3410, 3420, 3440, 3450, 3460. Topics in	
Music History	2
Three units selected from the following as approved	
by the minor adviser	3
MUS 4400, 4410, 4440. Group Performance	
Total	5
	28

Music

LIBERAL STUDIES CONCENTRATION IN MUSIC

Twenty units, of which 15 units must be upper division.

Lower Division Un	nits
Five units selected from the following and approved by concentration adviser	5
Upper Division	
Fifteen units selected from the following and approved by concentration adviser	15
Total	20

TEACHING CREDENTIALS

Music majors interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.

MUSIC COURSES FOR NON-MAJORS

For the student not majoring in music, the Music Department offers courses for cultural and aesthetic enrichment: MUS 1000, Introduction to Music; MUS 1190, Music Fundamentals; MUS 1610, Basic Class Piano; MUS 1620, Basic Class Guitar; MUS 2650, Intermediate Class Guitar; MUS 1630, Basic Class Voice; MUS 2420, College Choir; MUS 3400, American Music; MUS 3410, History of Jazz; and MUS 3420, Opera. The general student is welcome to participate in the various performance courses (band, orchestra, chorus, small ensembles).

^{*}MUS 1000 may not apply toward the 20 units of the concentration if used to satisfy Liberal Studies Area C requirements.

COURSE DESCRIPTIONS

Lower Division

MUS 1000. Introduction to Music (3)

A course for the general student, tracing the growth and development of music through history from early times to the present. Emphasis is placed on becoming acquainted through listening and analysis with representative forms, styles, and techniques of the various historical periods in music. No prerequisite.

MUS 1020. Freshman Music Seminar (1)

Introducing the freshman music student to standard concert repertoire. Prerequisite: Music major or minor.

MUS 1190. Music Fundamentals (3)

A beginning course in music reading, notation, intervals, scales, and theory. Designed primarily for the student pursuing the liberal studies major, the general student, and the music student who does not qualify for enrollment in MUS 1220. No prerequisite.

MUS 1220. Theory I (4)

Review and study of rudiments of music notation; scales, key signatures, intervals, triads, and inversion of triads. Emphasis is placed on analysis and creation of melodies based upon techniques of the various musical periods, and sight singing and dictation. Drill in rhythms will also be stressed. (Formerly 101 and 122) Prerequisite: Ability to read treble and bass clefs.

MUS 1230. Theory II (4)

Continuation of MUS 1220; beginning with construction of an underlying tonal harmonic (triadic) continuum, emphasis will be on chord connection, employment of inversions of triads, and study of fundamentals of harmonic rhythm, leading to the creation of two-, three-, and four-part textures within a harmonic fabric. Work in aural perception will include recognition of harmonic motion plus more sophisticated rhythmic drills. (Formerly 122, 123) Prerequisite: MUS 1220.

MUS 1610. Basic Class' Piano (1)

Basic keyboard experience in reading and playing music from beginning to intermediate level with emphasis on the fundamentals of music theory and structure. May be repeated for a total of 4 units. No prerequisite.



MUS 1620. Basic Class Guitar (1)

A basic course in simple guitar skills designed for those who may or may not have any previous musical training. No prerequisite.

MUS 1630. Basic Class Voice (1)

Introduction to singing and vocal technique; posture, breathing, and tone production. Problems of tension and relaxation. May be repeated for a total of 4 units. (Formerly 164) No prerequisite.

MUS 2400. Orchestra (1)

The study and performance of standard orchestra music. Students will participate in all public performances. May be repeated for a total of 8 units. (Formerly 268) Prerequisite: An acceptable degree of performance skill.

MUS 2410. Chorale (1)

Study and performance of choral masterworks. Open to all students. A voice test will be given. As a member of a major performance group, the student will participate in public performances. May be repeated for a total of 8 units. Prerequisites: Ability to read music and an acceptable singing voice.

MUS 2420. College Choir (1)

A general chorus open to all students. Study of standard choral literature; classical, semi-classical, popular. May be repeated for a total of 8 units. No prerequisite.

MUS 2430. Chamber Singers (1)

Study and performance of choral works for small chamber ensemble, including the motets and madrigals of Renaissance and early baroque composers. Selected works from other musical periods will also be studied and performed. Student conducting will be encouraged. May be repeated for a total of 8 units. Prerequisites: Ability to read music and consent of instructor.

MUS 2440. Symphonic Wind Ensemble (1)

Study and performance of materials for the concert band. As a member of a major performance group, the student will participate in public performances. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

Music

MUS 2450. String Ensemble (1)

Study and performance of materials for small string ensembles. Students are expected to participate in all public performances. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 2460. Brass Ensemble (1)

Study and performance of materials for small brass ensembles. Students are expected to participate in all public performances. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 2470. Woodwind Ensemble (1)

Study and performance of materials for small woodwind ensembles. Students are expected to participate in all public performances. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 2480. Jazz Ensemble (1)

Study and performance of materials for the jazz ensemble. Students will participate in jazz concerts and study the art of improvising. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 2610. Intermediate Piano (1)

For music majors whose performance medium is piano. Study and performance of the smaller classical sonatas, and works of such composers as Bach, Chopin, Schumann, Brahms, and Bartok. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

MUS 2620. Intermediate Class Piano (1)

For general students, music minors, and music majors whose performance area is not piano. Keyboard experience in reading and playing music of intermediate level, such as the Bach inventions, sonatinas, and easier sonatas. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

MUS 2630. Intermediate Class Voice (1-2)

Continuation of MUS 1630. Class study of the easier song literature of such composers as Brahms, Schumann, Barber, and others. The second unit is earned through instruction and experience in small vocal ensembles. For general students, music minors, and music majors whose performance medium is not voice. May be repeated for a maximum of 4 terms. Prerequisite: MUS 1630 or consent of instructor.

MUS 2640. Intermediate Voice (1-2)

Continuation of MUS 1630. Development of expressive singing for solo and ensemble performance. For music majors whose performance medium is voice. The second unit is earned through instruction and experience in small vocal ensembles. May be repeated for a maximum of 6 terms. Prerequisite: Consent of instructor.

MUS 2650. Intermediate Class Guitar (1)

A course for the student with a fundamental background in guitar playing. Prerequisite: MUS 1620 or equivalent, or consent of instructor.

MUS 2670. Intermediate Orchestral Instruments (1)

Instruction in orchestral instruments: strings, woodwinds, brasses, and percussion. For music majors whose performing medium is in one of these categories. May be repeated for a total of 8 units. Prerequisite: Consent of instructor.

MUS 2900. Music History and Literature I (3)

A survey of music history and literature spanning antiquity through Renaissance. Designed primarily for music majors and minors. Prerequisite: MUS 1020 or consent of instructor.

MUS 2910. Music History and Literature II (3)

A survey of music history and literature spanning the baroque and classical periods. (Formerly 401, 403) Prerequisite: MUS 2900 or consent of instructor.

MUS 2950. Selected Topics in Music (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of music. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

MUS 2970. Selected Topics during Winter Term (4)

Upper Division

MUS 3220. Theory III (4)

Continuation of MUS 1230. Emphasis will be on an understanding of 19th century harmonic practice, i.e., utilization of varied chord structures beyond the triad, chords of chromatic origin, and work in advanced modulation procedures and more sophisticated harmonic progressions. Writing for the keyboard and for other instrumental and vocal combinations will be encouraged. Works from Beethoven through Franck will be analyzed and extensive time will be spent creating original works in conscious imitation of various 19th century styles, work in aural perception includes more sophisticated drill in rhythmic, melodic and harmonic dictation. (Formerly 222, 223) Prerequisite: MUS 1230.

Music

MUS 3230. Theory IV (4)

Continuation of MUS 3220. Completed exploration of tertial harmony; 9th, 11th, and 13th chords. Examination of impressionistic devices, quartal harmony, nontonal and atonal compositional processes. Emphasis upon 20th century Western music. Numerous original compositions required. Advanced ear training exercises. (Formerly 223, 224) Prerequisite: MUS 3220.

MUS 3240. Orchesfration (2)

The study and application of scoring techniques for small and large ensembles with particular attention to tone colors and combinations of instruments. Prerequisite: MUS 3230 or consent of instructor.

MUS 3250. 18th Century Counterpoint (2)

Counterpoint, based on the harmonic practice of J. S. Bach. Harmonic and formal analysis of Bach's Inventions and selected fugues from the Well-Tempered Clavichord, emphasis on creative writing in contrapuntal two- and three-part forms. (Formerly 320) Prerequisite: MUS 3230.

MUS 3260. Analysis and Composition (2)

Analysis of various types of musical structures including large forms; emphasis on the comparison of styles and the development of an ability to write in various forms. (Formerly 321) Prerequisite: MUS 3230.

MUS 3270. Basic Conducting (2)

The study and development of basic elements of conducting and fundamental score reading applicable to both vocal and instrumental ensembles. Prerequisites: Ability to read music and consent of instructor.

MUS 3280. Choral Conducting (2)

A continuation of MUS 3270 with emphasis on performance of standard choral literature. Study and application of the interpretive aspect of conducting. (Formerly 326) Prerequisites: MUS 3270 and consent of instructor.

MUS 3290. Instrumental Conducting (2)

A continuation of MUS 3270 with emphasis on performance of standard instrumental literature. Study and application of the interpretive aspect of conducting. (Formerly 325) Prerequisites: MUS 3270 and consent of instructor.

MUS 3300. Music Literature I (3)

A study of music literature of the baroque and classical periods. Designed primarily for the student pursuing the Liberal Studies Major and the general student. Prerequisite: MUS 1190 or ability to read music.

MUS 3310. Music Literature II (3)

A study of music literature of the 19th century romantic and *20th century periods. Designed primarily for the student pursuing the Liberal Studies major and the general student. Prerequisite: MUS 1190 or ability to read music.

MUS 3350. Music in Early Childhood (3)

A study of music experience for young children, pre-school through third grade. Prerequisite: MUS 1190 or ability to read music.

MUS 3360. Music in Intermediate Grades (3)

A study of music experiences for children in the intermediate grades, fourth through sixth. (Formerly 335) Prerequisite: MUS 1190 or ability to read music.

MUS 3370. Curriculum and Instruction: Music (3)

Contemporary trends in music education in the secondary school. Curriculum development, selection and organization of materials, teaching techniques. (Formerly 336) Prerequisites: Consent of credential adviser and instructor. (Same as EDUC 3220)

MUS 3380. Music History and Literature III (3)

A survey of music history and literature spanning the romantic period and the 20th century. Designed primarily for music majors and minors. (Formerly 403 and 405) Prerequisite: MUS 2910 or consent of instructor.

MUS 3400. American Music (2)

A comprehensive survey and study of the music of the United States and the contributions of American composers from the American Revolution to the present. Prerequisites: MUS 1000 or equivalent, junior standing.

MUS 3410. History of Jazz (2)

An introduction to jazz with concentration on its evolution and its development in the United States. (Formerly 231) Prerequisites: MUS 1000 or equivalent, junior standing.

Music

MUS 3420. Opera (2)

A study of representative works from English, French, German, Italian, and Russian literature. Considerations of the nature, reality, and components of this medium. Prerequisites: MUS 1000 or equivalent, junior standing, consent of instructor.

MUS 3440. Symphonic Literature (2)

The symphony; abstract and programmatic aspects; the tone poem and its relation to the sonata form; in-depth analysis of a limited number of representative works in this medium. Designed primarily for music majors and minors. Prerequisites: Junior standing, consent of instructor.

MUS 3450. Piano Literature (2)

Study of selected major piano works of representative master composers from Bach to the present. Discussion of the practical procedures for teaching piano in the smaller works of piano repertory. Prerequisites: Junior standing, consent of instructor.

MUS 3460. Harpsichord Literature (2)

A study of the various styles and forms of harpsichord literature from the 16th through the 18th centuries with some performance of smaller pieces. Prerequisites: Junior Standing, consent of instructor.

MUS 3620. Accompanying (1)

Techniques of accompanying for various performance media. Reading skills are stressed. Students are assigned to work with other student performers or classes. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

MUS 3650. String Technique I (1)

Development of basic foundation for technique of playing violin and viola. Prerequisite: Consent of instructor.

MUS 3660. String Technique II (1)

Continuation of MUS'3650; however, emphasis will be placed on techniques of playing cello and double bass. Prerequisite: MUS 3650 or consent of instructor.

MUS 3670. Instrumental Techniques (1)

A 4-term sequence covering all basic brass, woodwind, and percussion instruments for students planning to enter the teaching credentials program and for the music student who wishes to study a secondary musical instrument. May be repeated for a total of 4 units. (Formerly 367, 368, 369, 370) Prerequisite: Consent of instructor.

MUS 4210. Composition I (2)

Detailed exploration of tonal compositional resources. Student will undertake the composition of at least one complete work: a 3-movement sonata for solo instrument, a work in sonata form for varied instrumental combinations, a song cycle, or another work of significant proportions. Individual sessions between student and instructor will coincide with class discussions relating to particular problems in composition. Public performance of student projects is required. Prerequisites: MUS 3240, 3250, 3260.

MUS 4220. Composition II (2)

Continuation of MUS 4210. Exploration of tonal and atonal or other nontonal compositional techniques. Student will be encouraged to develop his own personal idiom of expression based upon a thorough knowledge of the various compositional methods. A major work and its public performance is required from each student. Prerequisite: MUS 4210.

MUS 4400. Orchestra (1)

The study and performance of standard orchestra music. Students will participate in all public performances. May be repeated for a total of 8 units. (Formerly 468) Prerequisite: An acceptable degree of performance skill.

MUS 4410. Chorale (1)

Study and performance of choral masterworks. Open to all students. A voice test will be given. As a member of a major performance group, the student will participate in public performances. May be repeated for a total of 8 units. Prerequisites: Ability to read music and an acceptable singing voice.

MUS 4420. College Choir (1)

A general chorus open to all students. Study of standard choral literature; classical, semi-classical, popular. May be repeated for a total of 8 units. No prerequisite.

MUS 4430. Chamber Singers (1)

Study and performance of choral works for small chamber ensemble including the motets and madrigals of Renaissance and early baroque composers. Selected works from other musical periods will

Music

also be studied and performed. Student conducting will be encouraged. May be repeated for a total of 8 units. Prerequisites: Ability to read music and consent of instructor.

MUS 4440. Symphonic Wind Ensemble (1)

Study and performance of materials for the concert band. As a member of a major performance group, the student will participate in public performances. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 4450. String Ensemble (1)

Study and performance of materials for small string ensembles. Students are expected to participate in all public performances. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 4460. Brass Ensemble (1)

Study and performance of materials for small brass ensembles. Students are expected to participate in all public performances. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 4470. Woodwind Ensemble (1)

Study and performance of materials for small woodwind ensembles. Students are expected to participate in all public performances. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 4480. Jazz Ensemble (1)

Study and performance of materials for the jazz ensemble. Students will participate in jazz concerts and study the art of improvising. May be repeated for a total of 8 units. Prerequisite: An acceptable degree of performance skill.

MUS 4550. Instrumental Literature Seminar (3)

Study of literature for orchestra, band, chamber groups, and solo playing, elementary through advanced levels. Attention given to both class and private instructional needs. (Formerly 450) Prerequisite: Consent of instructor.

MUS 4570. Vocal/Choral Literature Seminar (3)

A comprehensive survey of vocal music suitable for large and small choral organizations; music for madrigal groups and glee

clubs, plus solo material for various vocal categories. (Formerly 451) Prerequisite: Consent of instructor.

MUS 4600. Harpsichord (Applied) (1)

Study and performance of the various styles and types of harpsichord literature (solo and ensemble) from the Renaissance to contemporary. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

MUS 4610. Advanced Piano (1)

For music majors whose performance medium is piano. Study and performance of advanced repertoire with emphasis upon development of style and interpretation as well as technique. May be repeated for a total of 8 units. Prerequisite: Consent of instructor.

MUS 4640. Advanced Voice (1-2)

Vocâl technique for the advanced student; study of German Lieder, French and Italian repertoire, and solo material in contata, oratorio, and opera. For music majors whose performance medium is voice. The second unit is earned through instruction and experience in small vocal ensembles. May be repeated for a total of 8 units. Prerequisite: MUS 2640 or equivalent.

MUS 4670. Advanced Orchestral Instruments (1)

Advanced instruction in orchestral instruments: strings, woodwinds, brasses, and percussion. For music majors whose performance medium is in one of these categories. May be repeated for a total of 8 units. Prerequisite: Consent of instructor.

MUS 4950. Selected Topics in Music (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of music. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

MUS 4960. Senior Seminar (4)

Individual research in specific problems; emphasis on introduction to musicology. A comprehensive examination and research paper are part of completion of the course. Prerequisites: Senior standing and consent of instructor.

Music

MUS 4970. Selected Topics offered during Winter Term (4)

MUS 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

MUS 5980. Individual Study (1-4)

For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Philosophy

William H. Hayes, Ph.D., Professor

Philosophy's subject matter is the critical analysis of, and rational reflection on, persistent human problems of knowledge, of existence, of conduct, of art, and of religion. Courses offered present both the analytical and speculative aspects of philosophy, including as they do study of outstanding historical and contemporary philosophical statements, as well as practice of the analytical and argumentative techniques needed to discern, formulate, and defend philosophical principles of one's own.

The curriculum in philosophy is conceived as contributing to broad, general education in the liberal arts. It can provide for any student an adequate component of philosophy whether pursued as a supplement to major studies, undergraduate or graduate, or for the values of philosophy itself.

DEGREE MINOR IN PHILOSOPHY

Fifteen units, including nine in upper division courses, distributed as follows: Units PHIL 1010. Introduction to Philosophy, 3 units or PHIL 1100. Logic, 3 units PHIL 2200. Ancient Greek Philosophy, 3 units or PHIL 2230. Seventeenth & Eighteenth Century Philosophy, 3 units PHIL 3300. Theory of Knowledge, 4 units or PHIL 3400. Ethics, 4 units or HIST 3890. The Oriental Mind, 4 units 4 PHIL 4250. Recent & Contemporary Philosophy, 4 units or PHIL 4450. Philosophy of Religion, 3 units Aesthetics, 4 units or PHIL 4500. PHIL 4980. Individual Study 15 LIBERAL STUDIES CONCENTRATION IN PHILOSOPHY Twenty-one units distributed as follows: Units *PHIL 1010. Introduction to Philosophy, 3 units

or *PHIL 1100. Logic, 3 units

^{*} May not apply toward the concentration if used to satisfy Liberal Studies Area C requirements.

Philosophy

PHIL 2200.	Ancient Greek Philosophy, 3 units	Unit
	2230. Seventeenth & Eighteenth Century	
	Philosophy, 3 units	. 3
PHIL 3300.	Theory of Knowledge, 4 units	
	3400. Ethics, 4 units	
or HIST	3890. The Oriental Mind, 4 units	. 4
PHIL 4250.	Recent & Contemporary Philosophy	. 4
PHIL 4450.	Philosophy of Religion	. 3
PHIL 4500.	Aesthetics	. 4
		_
	Total	21

TEACHING CREDENTIALS

Students who wish to offer philosophy as a subject area for a teaching credential should consult with advisers in both philosophy and education to plan an appropriate program of studies.

COURSE DESCRIPTIONS

Lower Division

PHIL 1010. Introduction to Philosophy (3)

Introduction to philosophical method by examining traditional and contemporary philosophical problems.

PHIL 1100. Logic (3)

Analysis of the methods and principles of deductive reasoning, including traditional logic; introduction to symbolic logic and to inductive argument. (Formerly 110 § 111)

PHIL 2200. Ancient Greek Philosophy (3)

A general survey of the history of Western philosophy from the pre-Socratic to the end of the Classical Period. (Formerly 250)

PHIL 2230. Seventeenth & Eighteenth Century Philosophy (3)

A general survey of the history of Western philosophy from the Renaissance through the Eighteenth Century. (Formerly 252)

PHIL 2950. Selected Topics in Philosophy (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in philosophy. Topics vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHIL 2970. Selected Topics offered during Winter Term (4)

Upper Division

PHIL 3000. Humanistic Inquiry (3)

Nature and interrelationships of the humanistic disciplines, including the performing and creative arts, and their relations with the natural and social sciences. Prerequisite: At least one course in each of three of the following fields: art, drama, foreign languages and literature, music, philosophy.

PHIL 3300. Theory of Knowledge (4)

Analysis of the concepts of knowledge, truth, belief, evidence, certainty; readings in classical and contemporary theories. (Formerly 320) Prerequisites: 3 units in philosophy and upper division standing.

PHIL 3400. Ethics (4)

Analysis of the concepts of right and wrong, good and bad, utility and duty, freedom, obligation, responsibility; readings in classical and contemporary theories. Prerequisites: 3 units in philosophy and upper division standing.

PHIL 4250. Recent and Contemporary Philosophy (4)

A general survey of the history of Western philosophy from the end of the Enlightenment to the present day. Prerequisites: 3 units in philosophy and upper division standing.

PHIL 4450. Philosophy of Religion (3)

Analysis of religious concepts with emphasis on the logic of religious discourse. (Formerly 302 & 303) Prerequisites: 3 units in philosophy and upper division standing.

PHIL 4500. Aesthetics (4)

Philosophy of art; analysis of aesthetic experience; principles of criticism. (Formerly 346 & 347) Prerequisites: 3 units in philosophy and upper division standing.

PHIL 4950. Selected Topics in Philosophy (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in philosophy. Topics vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHIL 4970. Selected Topics offered during Winter Term (4)

Philosophy

PHIL 4980. Individual Study (1-4)

For undergraduate students prepared for independent study to supplement regular course offerings. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

PHIL 5980. Individual Study (1-4)

For postbaccalaureate students prepared for independent work, and in need of advanced and specialized study in philosophy. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Armin P. Pipho, Ph.D., Associate Professor, Chairman
Zaki I. Habashi, Ed.D., Professor
James C. Bowen, Ph.D., Associate Professor
Richard D. Conant, Ph.D., Associate Profresor
James K. Hanny, Ed.D., Associate Professor
William M. Morris, Ed.D., Associate Professor
Wayne E. Nelson; Ed.D., Associate Professor
Martha M. Seban, M.S., Assistant Professor

The Department of Physical Education and Health offers the degree Bachelor of Arts, Physical Education. Courses are designed to provide a background in physical education for those planning to enter the teaching field, an educational foundation for those planning to undertake graduate work or a program for preprofessional work.

REQUIREMENTS FOR THE BACHELOR OF ARTS, PHYSICAL EDUCATION

Physical education majors are to:

- Complete the requirements for the Bachelor of Arts degree.
- Complete the prerequisites to the major including required courses in related fields.
- 3. Complete the major of not less than 34 upper division units; of these no more than 8 units of Winter Term CR graded course work may apply toward the major.
- Consult with the major adviser during each advising period concerning requirements, changes in curriculum, waivers,
- 5. Completion of a minor is not required.

DEGREE MAJOR IN PHYSICAL EDUCATION

Prerequisites to the Major:

The following courses, which are among the choices applicable to the general education requirements, are required for physical education majors.

BIOL 1010. Principles of Biology (Lec. & Lab.), 4 units or ZOOL 1050. Introduction to Zoology, 4 units

HLTH 1000. Health in Today's Society, 1 unit

PHED 1000. Physical Education Activity, 1 unit

Required courses in related fields:

ZOOL 2230. Physiology (Lec.), 3 units

ZOOL 2240. Physiology (Lab.), 1 unit

ZOOL 2250. Human Anatomy (Lec. & Lab.), 3 units

The Major

Required courses in major field:

Group One:	All courses required Un	its
PHED 3100.	Foundations, History, & Philosophy of Physical Education	3
PHED 4100.	Curriculum Organization & Administration of Physical Education	
PHED 4200.	Motor Learning	3
PHED 4300.	Measurement & Evaluation in Physical Education	3
PHED 4400.	Kinesiology	3
PHED 4500.	Physiology of Exercise	3
Group Two:	Eight units from the followingnot more than two units chosen from PHED 2100-2130	
	130. Sports Officiating, 1 unit each	
PHED 3400.	Elementary Physical Education, 3 units	
PHED 3500.	Community Recreation, 2 units	
PHED 3600.		
PHED 3700. PHED 3800.	Sport in Society, 3 units Adapted Physical Education, 3 units	
HLTH 2200.		
HLTH 3000.		
Group Three	: Four units from the following	4
PHED 3200.	Theory of Coaching Football, 2 units	
PHED 3210.	Theory of Coaching Basketball, 2 units	
PHED 3220.	Theory of Coaching Baseball, 2 units	
PHED 3230.	Theory of Coaching Track & Field, 2 units	
PHED 3240.	Theory of Coaching Volleyball, 2 units	
-	Eight units from the following	8
PHED 3300.	Theory & Analysis of Aquatic Sports, 2 units	
PHED 3310.	Theory & Analysis of Combative Activities, 2 units	
PHED 3320.	Theory & Analysis of Dance, 2 units	
PHED 3330.	Theory & Analysis of Golf & Archery, 2 units	
PHED 3340.	Theory & Analysis of Gymnastics, 2 units	
PHED 3350.	Theory & Analysis of Racquet Sports, 2 units	
PHED 3360.	Theory & Analysis of Team Sports, 2 units	
	Total	88

DEGREE MINOR IN PHYSICAL EDUCATION

Twenty units approved by the minor adviser, 16 of which must be upper division units.

Un	its
Courses from Group One of Major Program	2 6 4 4 4
Total	0
LIBERAL STUDIES CONCENTRATION IN PHYSICAL EDUCATION	l
Twenty units, including at least 15 upper division units.	
Required courses: Un	its
PHED 4200. Motor Learning	3 3 2 2 6 4
Total	0
CREDIT BY EXAMINATION	
Activity courses may be challenged by a proficiency and wr examination.	itte
ACTIVITY COURSES (1 unit each)	
All activity courses meet 2 hours per week, have no prereq sites, may not be repeated for credit, and are graded A, B, C, NC, with the student's option to be graded on a credit/no cred basis.	
FITNESS AND CONDITIONING PHED 1300. Fencing	

•			PHED	1300.	Fencing
PHED 10	10. Bac	kpacking	PHED	1320.	Advanced Fencing
PHED 10	20. Yog	a `	·PHED	1330.	Golf
PHED 10	30. Cyc	ling	PHED	1350.	Advanced Golf
PHED 10	50. Jog	ging/Aerobics	PHED	1360.	Gymnastics '
PHED 10	60. Ski	Conditioning	PHED	1380.	Advanced Gymnastics
PHED 10	70. Jud	0	PHED	1400.	Handball
PHED 10)80 Kar	ate	PHED	1420.	Racquet Ball
PHED 11	.10. Per	sonal Defense (W)	PHED	1450.	Skiing
PHED 11	.30. Wei	ght Training (M)	PHED	1480.	Tennis
PHED 11	40. Wei	ght Training (W)	PHED	1490.	Intermediate Tennis
PHED 11	60. Wre	stling	PHED	1500.	Advanced Tennis

ACTIVITY COURSES - Continued

INDIVIDUAL	& DUAL SPORTS	AQUATICS						
PHED 1200. PHED 1220. PHED 1230. PHED 1250. PHED 1260. PHED 1280. PHED 1290.	Advanced Archery Badminton	PHED 1610. PHED 1620. PHED 1630. PHED 1640.						
TEAM SPORTS		DANCE						
PHED 1700. PHED 1720. PHED 1740. PHED 1760. PHED 1770. PHED 1800. PHED 1810. PHED 1820. PHED 1840. PHED 1850. PHED 1860. PHED 1870. PHED 1870. PHED 1880.	Baseball Advanced Baseball Basketball (M) Advanced Basketball (M) Basketball (W) Field Hockey Advanced Field Hockey Team Handball Soccer Advanced Soccer Softball Track Volleyball Intermediate Volleyball Advanced Volleyball	PHED 1940.	Modern Dance Intermediate Modern Dance Advanced Modern Dance Social Dance					
	, and the second							

COURSE DESCRIPTIONS

Lower Division

PHED 2100-2130. Sports Officiating (1)

The study and interpretation of rules for various sports; procedures, mechanics, and practice in officiating. PHED 2100, Football; PHED 2110, Basketball; PHED 2120, Baseball; PHED 2130, Track and Field. (Formerly 200)

PHED 2500-2570. Intercollegiate Athletics (1)

Theory, practice, and game performance of competitive intercollegiate athletics. Limited to students trying out for the varsity or freshmen-junior varsity teams. May be repeated for credit. PHED 2500, Baseball; PHED 2510, Basketball; PHED 2520, Cross Country; PHED 2530, Golf; PHED 2540, Tennis (M); PHED 2550, Tennis (W); PHED 2560, Track and Field; PHED 2570, Volleyball. Prerequisite: Consent of instructor.

PHED 2950. Selected Topics in Physical Education (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physical education. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHED 2970. Selected Topics offered during Winter Term (4)

Upper Division

PHED 3100. Foundations, History, and Philosophy of Physical Education (3)

Historical factors and forces guiding the development of physical education; objectives of current physical education and its contribution to the full development of man; development of professional understanding and attitude. Philosophical thoughts guiding the development of physical education from ancient time to modern time.

PHED 3190. Curriculum and Instruction: Physical Education (3)

Preparation for teaching in physical education in secondary schools. Current trends and practices, instructional materials and techniques. Prerequisites: EDUC 3020 or equivalent, consent of credential adviser or teaching experience. (Same as EDUC 3190)

PHED 3200-3240. Theory of Coaching (2)

Principle and coaching techniques underlying participation in competitive interscholastic athletics. (Lecture, 1 hour; laboratory, 2 hours) PHED 3200, Football; PHED 3210, Basketball; PHED 3220, Baseball; PHED 3230, Track and Field; PHED 3240, Volleyball. Prerequisite: Limited to physical education majors and minors, or consent of instructor.

PHED 3300-3360. Theory and Analysis of Physical Education Activities (2)

Development of fundamental skills and special abilities applicable to specific areas. A study of competencies and knowledge needed for teaching and organization. Rules and field experience in game strategy, tactics, and evaluation techniques. (Two 2-hour laboratories) PHED 3300, Aquatic Sports; PHED 3310, Combative Activities; PHED 3320, Dance; PHED 3330, Golf/Archery; PHED 3340, Gymhastics; PHED 3350, Racquet Sports; PHED 3360, Team Sports. Prerequisite: Limited to physical education majors and minors or consent of instructor.

PHED 3400. Elementary School Physical Education (3)

The scope and values of physical education and movement education in the elementary school. Program development, methods,

materials, and practice in teaching activities for primary, intermediate, and upper grades.

PHED 3500. Community Recreation (2)

Study of leisure in a technological society, recreational programs, and recreational organizations.

PHED 3600. Intramural Programs (2)

The organization, administration, and motivation of intromural activities for schools including practical field experience.

PHED 3700. Sport in Society (3)

Introduction to the theoretical study of sport and its relationship to culture and society; investigation and analysis of literature that is concerned with the individual and his involvement in play, game, and sport.

PHED 3800. Adapted Physical Education (3)

The nature of specific handicaps which occur in students, the ways in which physical education activities are modified to meet the movement needs of handicapped students, and the laws of the State of California which have implications for the physical education program for handicapped students. (Formerly 490) ZOOL 2250 is recommended.

PHED 4100. Curriculum, Organization, and Administration of Physical Education (3)

An introduction to secondary level physical education curriculum planning, development, and evaluation. Topics include curriculum definitions; content of well-rounded instructional, intramural, and interscholastic athletic programs; instructional time allotments, unit planning, and staff utilization. Special attention is devoted to The California Framework for Physical Education and various innovative techniques or methodologies utilized in today's secondary level physical education.

PHED 4200. Motor Learning (3)

The application of motor learning principles as they relate to methods of teaching movement to various age groups. Emphasis will also be placed on the development of motor patterns in the child from prenatal stages through adolescence. Prerequisite: Junior standing.

PHED 4300. Measurement and Evaluation in Physical Education (3)

A study of practical measurements for evaluation in physical

education with emphasis on fitness and sports skills. (Former'ly 480) Prerequisite: Junior standing.

PHED 4400. Kinesiology (3)

A study of anatomical structure and mechanical principles applied to human movement. Analysis of motor skills related to physical education activities. (Lecture, 2 hours; laboratory, 3 hours) (Formerly 484) Prerequisites: ZOOL 2250 and junior standing. PHYS 1500 is recommended.

PHED 4500. Physiology of Exercise (3)

Study of different body systems and the effects of exercise on each system and physical performance. (Lecture, 2 hours; laboratory, 3 hours) (Formerly 487) Prerequisites: ZOOL 2230, 2240, and junior standing. CHEM 1000 is recommended.

PHED 4900. Field Work or Practicum in Physical Education (1)

Field work is designed for students interested in gaining experience in a teaching or coaching situation off campus. Practicum is designed for students interested in gaining experience in a teaching or coaching situation on campus. May be repeated for a total of 6 units. Prerequisite: Consent of department chairman.

PHED 4950. Selected Topics in Physical Education (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physical education. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHED 4970. Selected Topics offered during Winter Term (4)

PHED 4980. Individual Study (1-4)

For students capable of independent work in need of advanced or specialized study. May be repeated for 6 units. Prerequisite: Consent of department chairman.

HEALTH

HLTH 1000. Health in Today's Society (1)

Attention is focused on contemporary health problems and concerns. Typical topics covered are mental health, nutrition, family planning, and the physiological and sociological effects of alcohol, narcotics, and tobacco.

HLTH 2200. School Health and Safety (2)

Investigation and analysis of school health problems and services. The school environment as it relates to accidents and safety.

HLTH 3000. Prevention and Care of Athletic Injuries (2)

Principles and practices of conditioning athletes, with emphasis on the prevention and care of athletic injuries, bandaging, therapy, health habits, and protective equipment. (Formerly 310)

Tai-Low Chow, Ph.D., Associate Professor, Chairman Ervin H. Schwarcz, Ph.D., Professor Vladimir S. Tuman, Ph.D., Professor James M. Goodwin, Ph.D., Associate Professor

The Department of Physics and Physical Sciences offers the degree of Bachelor of Arts, Physics, and Bachelor of Arts, Physical Sciences. A student may pursue a physical sciences major by electing one of the following three concentrations: Applied Physics, Earth & Space Sciences, Environmental Sciences. A student may also pursue a physical sciences major without a concentration by completing sufficient upper division units.

The department also offers degree minors in the following areas: Earth Science, Physical Sciences, and Physics.

A concentration in Physical Sciences and in Physics for the Bachelor of Arts degree in Liberal Studies is also available.

BACHELOR OF ARTS, PHYSICS

The curriculum in physics is designed to give the student a thorough understanding of the fundamentals and modern applications of physics and to prepare the student for graduate school, a career in scientific research and development, or industrial work. It is also intended for those students who wish to prepare for interdisciplinary studies on the graduate level in fields such as astrophysics, atmospheric science, biophysics, environmental science, geophysics, or physical oceanography.

REQUIREMENTS FOR BACHELOR OF ARTS, PHÝSICS

Physics majors are to:

- Complete the requirements for the Bachelor of Arts degree.
- 2., Complete prerequisites to the major.
- Complete the major of not less than 24 upper division units of physics; no more than 6 units CR graded course work may apply toward the major.
- 4. No minor is required.

DEGREE MAJOR IN PHYSICS

Prerequisites to the Major

Required courses in major field

PHYS 2250, 2260. General Physics I, II, 8 units PSYC 2350, 2360. General Physics Laboratory I, II, 2 units

Required courses in supporting field: (These courses may also apply toward a minor in mathematics or chemistry)

MATH 1410, 1420. Calculus I, II, 8 units MATH 2410. Multivariate Calculus, 4 units CHEM 1100, 1110. Principles of Chemistry I, II, 10 units

The Major				Ĭ	mit:
PHYS	3010.	Introduction to Theoretical Physics I .			3
PHYS	3140,	3150. Analytical Mechanics I, II			5
PHYS	3320,	3330. Electricity and Magnetism I, II.			5
PHYS :	3520.	Modern Physics			3
PHYS	3530.	Quantum Mechanics I			3
PHYS 4	4100.	Advanced Physics Laboratory			2
PHYS	4530.	Thermal and Statistical Physics I			3
		Total			21

The requirement for the major listed above gives the students maximum flexibility and ample opportunity for electives during their junior and senior years. The recommended electives are:

PHYS 3020. Introduction to Theoretical Physics II, 3 units
PHYS 3540. Quantum Mechanics II, 3 units
PHYS 4200. Electronics Instrumentation, 3 units
PHYS 4450. Nuclear Physics, 3 units
PHYS 4540. Thermal & Statistical Physics II, 2 units
PHYS 4560. Solid State Physics, 3 units
PHYS 4900. Modern Optics, 3 units
PHYS 4930. Lasers and Holography, 4 units
MATH 3250. Ordinary Differential Equations, 4 units
MATH 3260.

Degree Minor in Physics

Consists of 18 units in physics as approved by the minor adviser, to include at least 8 units in upper division.

ENVIRONMENTAL SCIENCES CONCENTRATION

A physics major may complete additional requirements in the sciences to qualify for a concentration in Environmental Sciences in addition to the bachelor's degree. This program requires study in biological sciences, chemistry, mathematics, and physical sciences, along with an environmental seminar and investigation of an environmentally related problem. Further details are found in the Environmental Sciences section of this catalog.

LIBERAL STUDIES CONCENTRATION IN PHYSICS

Twenty units, including at least 15 upper division units.

Lower Division

PHYS 2260. General Physics II, 4 units and PHYS 2360. General Physics II Lab, 1 unit

- Note: (a) PHYS 2250. General Physics I, 4 units and PHYS 2350. General Physics I Lab, 1 unit, must be taken to substitute for PHYS 1500, Energy and Matter, required under Liberal Studies Area B.
 - (b) MATH 1410. Calculus I, 4 units, and MATH 1420. Calculus II, 4 units, must be taken to substitute for MATH 1030 and MATH 1040, Elementary Foundations of Mathematics I and II, 6 units, required under Liberal Studies Area B.

Upper Division

At least 15 units chosen from upper division courses in physics. Since many of these courses draw on previous material, scheduling should be done after consultation and with the approval of a physics adviser.

BACHELOR OF ARTS, PHYSICAL SCIENCES

The Bachelor of Arts, Physical Sciences, is an interdisciplinary degree designed to prepare students for a greater diversity of professions requiring an understanding of the fundamentals of the physical sciences which is defined to include courses in the following areas: astronomy, chemistry, environmental sciences, geology, marine sciences, and physics.

A student may pursue a physical sciences major by electing one of the following three concentrations: Applied Physics, Earth and Space Sciences, or Environmental Sciences.

A student may also pursue a physical sciences major without a concentration by completing sufficient upper division units in two areas of interest chosen from astronomy, chemistry, environmental sciences, geology, marine science, and physics. The student should consult with a department adviser as to the areas of interest and to the proper selection of courses to suit his or her aims.

Students interested in seeking entrance to medical school, dental school, and other health professions such as pharmacy, physical therapy, optometry, teaching science in secondary school, environmental design, technical administration in government and industry, laboratory technology, legal work pertaining to patents, or scientific librarianship and journalism, may elect this major as an opportunity to acquire an education tailored to their individual needs.

The physical sciences major whose interest is in marine geology and physical oceanography will be required to enroll in upper division course work at the Moss Landing Marine Laboratories for fulfillment of major requirements. Refer to the Marine Science section of the catalog for description of Moss Landing course offerings.

Physical sciences majors interested in medical professions should work out a plan of study as soon as possible with their major adviser and health sciences committee. Refer to the health sciences section of this catalog.

REQUIREMENTS FOR BACHELOR OF ARTS, PHYSICAL SCIENCES

Physical Science majors are to:

- 1. Complete the requirements for the Bachelor of Arts degree.
- Complete prerequisites to the major.
- Complete the major of not less than 24 upper division units of physical sciences. Up to 8 units of CR graded work may apply toward the major.
- 4. No minor is required.

DEGREE MAJOR IN PHYSICAL SCIENCES

Prerequisites to the Major

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PHYS 2250, 2260. General Physics I, II, 8 units and PHYS 2350, 2360. General Physics Lab I, II, 2 units or PHYS 1100, 1110. Basic Physics I, II, 10 units CHEM 1100, 1110. Principles of Chemistry I, II, 10 units
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MATH 1910, 1920. Calculus with Applications I, II, 6 units

Students interested in earth science and astronomy may substitute:

MATH 1600. Statistics, 4 units and MATH 2000. Introduction to Computers, 3 units

The Major

Complete upper division courses of not less than 24 units by satisfying either 1 or 2 below:

1. The student who pursues a physical sciences major without a concentration must select two areas of interest in physical sciences and complete upper division courses of not less than 12 units from these areas. He or she may, in consultation with the adviser, complete any other courses in physical sciences or mathematics to meet the total required for the major of 24 upper division units.

2. The student may also pursue a physical sciences major by completing one of the following concentrations and other appropriate upper division courses to satisfy the total required units for the major of 24 upper division units.

ENVIRONMENTAL SCIENCE CONCENTRATION

Complete all requirements of the environmental science concentration (13 upper division units). Select an additional 11 upper division units of appropriate courses in consultation with the adviser.

EARTH AND SPACE SCIENCES CONCENTRATION

Twelve units to be selected from the following:

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ASTR 3000. Contemporary Astronomy, 3 units
ASTR 3200. Planetary and Space Science, 3 units
ASTR 3500. Observational Astronomy, 3 units
.GEOL 3000. Physical & Environmental Geology, 3 units
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GEOL 4200, 4210. Earth Science I, II, 6 units MSCI 3430.

Coastal Geomorphology, 3 units MSCI 3510. Marine Meteorology, 3 units

Electives, 12 upper division units in physical sciences or mathematics, in consultation with the adviser. One elective course may be chosen from the following:

GEOG 3100. Climatology, 3 units Geomorphology, 3 units GEOG 3120.

Cartographic Presentation, 3 units

Remote Sensing of the Environment, 2 units

Required courses:

GEOG 3700. GEOG 3710.

APPLIED PHYSICS CONCENTRATION

PHYS 3520. Modern Physics, 3 units PHYS 4100. Advanced Physics Lab, 2 units PHYS 4200. Electronics Instrumentation, 3 units PHYS 4930. Lasers and Holography, 4 units

Electives, 12 upper division units in physical sciences or mathematics, in consultation with the adviser.

DEGREE MINOR IN PHYSICAL SCIENCES

Consists of 18 units in physical sciences as approved by the minor adviser, to include at least 8 units in upper division.

DEGREE MINOR IN EARTH SCIENCES

Lower Division 7 units:

Principles of Geology, 3 units GEOL 2100.

GEOL 2110. Geology Lab, 1 unit

PHSC 2100. Basic Meteorology, 3 units or GEOG 3100. Climatology, 3 units

Upper Division 12 units:

Required:

GEOL 4200, 4210. Earth Sciences I, II, 6 units

Electives, 6 units, selected from the following:

GEOL 3000. Physical & Environmental Geology, 3 units

Field Geology, 4 units Geomorphology, 3 units GEOL 4500.

GEOL 3120.

GEOL 3700. Cartographic Presentation, 3 units

GEOL 3710. Remote Sensing of the Environment, 2 units

LIBERAL STUDIES CONCENTRATION IN PHYSICAL SCIENCES

Twenty units, including at least 15 upper division units.

Lower Division

PHYS 2260. General Physics II, 4 units, General Physics II Lab, 1 unit and PHYS 2360. Basic Physics II, 5 units, or PHYS 1110. with consent of adviser

- Note: (a) PHYS 2250. General Physics I, 4 units, and PHYS 2350. General Physics I Lab, 1 unit Basic Physics I, 5 units, or PHYS 1100. with consent of adviser, must be taken to substitute for PHYS 1500, Energy and Matter, 3 units, required under Liberal Studies Area B.
 - MATH 1410. Calculus I, 4 units, and MATH 1420. Calculus II, 4 units, must be taken to substitute for MATH 1030 and MATH 1040, Elementary Foundations of Mathematics I and II, 6 units, required under Liberal Studies Area B, unless the PHYS 1110 option is approved by the physics adviser.

Upper Division

At least 15 units chosen from upper division courses in physical science, astronomy, geology, or physics, with consent of the physical science adviser, to include at least 3 of the following.courses:

PHSC 3000. Physical Science of the Environment, 3 units

ASTR 3000. Contemporary Astronomy, 3 units

GEOL 3000. Physical & Environmental Geology, 3 units

PHYS 3520. Modern Physics, 3 units

COURSE DESCRIPTIONS

PHYSICS

Lower Division

PHYS 1100. Basic Physics I (5)

General physics without using the calculus. Newtonian mechanics, wave motion, heat and thermodynamics. Designed for general students and for students preparing for biology or medicine. (Lecture, 3 hours; discussion, 1 hour; laboratory, 3 hours) Prerequisites: Algebra and trigonometry, or consent of instructor.

PHYS 1110. Basic Physics II (5)

Continuation of PHYS 1100. Electricity and magnetism, light, optics, atoms, and nucleus. Prerequisite: PHYS 1100.

PHYS 1500. Energy and Matter (3)

A descriptive survey of the basic concepts and principles of physics. Topics will range from classical Newtonian mechanics to modern theories of the atom and the nucleus. (Lecture, 2 hours; laboratory, 3 hours) No prerequisites.

PHYS 2250. General Physics I (4)

General physics using the calculus, for science students. Mechanics, wave motion, heat and thermodynamics. (Lecture, 3 hours; discussion, 1 hour) Prerequisite: Concurrent enrollment in MATH 1410, or consent of instructor.

PHYS 2260. General Physics II (4)

Continuation of PHYS 2250. Electricity, magnetism, light, optics. Prerequisite: PHYS 2250.

PHYS 2350. General Physics Laboratory I (1)

Laboratory to accompany PHYS 2250. Prerequisite: PHYS 2250 or concurrent enrollment in PHYS 2250.

PHYS 2360. General Physics Laboratory II (1)

Laboratory to accompany PHYS 2260. Prerequisite: PHYS 2260 or concurrent enrollment in PHYS 2260.

PHYS 2950. Selected Topics in Physics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physics. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHYS 2970. Selected Topics offered during Winter Term (4)

Upper Division

PHYS 3010. Introduction to Theoretical Physics I (3)

Matrix algebra and tensors. Formulations of the partial differential equations of modern physics and an introduction to the mathematical methods required for their solutions. Special functions, topics in theory of complex variables. Examples are given from all fields of physics. Prerequisite: PHYS 2260.

PHYS 3020. Introduction to Theoretical Physics II (3)

Continuation of PHYS 3010. Prerequisite: PHYS 3010.

PHYS 3140. Analytical Mechanics I (3)

Dynamics of particles and rigid bodies, gravitation, Lagrangian and Hamiltonian dynamics, theory of oscillations, and the wave equation. Prerequisite: PHYS 2260.

PHYS 3150. Analytical Mechanics II (2)

Continuation of PHYS 3140. Prerequisite: PHYS 3140.

PHYS 3320. Electricity and Magnetism I (2)

Electrostatics, magnetostatics, electric current, electromagnetic induction, Maxwell's equations, electromagnetic waves, radiative reaction, electric and magnetic properties of materials, properties of wave guides. Prerequisite: PHYS 2260.

PHYS 3330. Electricity and Magnetism II (3)

*Continuation of PHYS 3320. Prerequisite: PHYS 3320.

PHYS 3370. Relativity and Cosmology (3)

Introduction to the physical basis and mathematical formulation of general relativity, experimental tests of general relativity, gravitational waves, gravitational collapse, cosmological implications of recent developments in general relativity. Prerequisite: PHYS 3150 or consent of instructor.

PHYS 3520. Modern Physics (3)

Origin of quantum theory, atomic structure, X-rays, and the elements of nuclear physics and particle physics. Prerequisite: PHYS 2260.

PHYS 3530. Quantum Mechanics I (3)

Development of Schrodinger's equation and its interpretations. Mathematical techniques for solution of problems in one and three dimensions. Perturbation and scattering theory. Solution of the hydrogen atom problem. Application to atomic phenomena. Prerequisite: PHYS 3520, or consent of instructor.

PHYS 3540. Quantum Mechanics TI (3)

Continuation of PHYS 3530. Prerequisite: PHYS 3530.

PHYS 4100. Advanced Physics Laboratory (1)

Project type experiments in mechanics, heat, electricity, and magnetism, optics, atomic physics, nuclear physics, etc. (Laboratory 3 hours) Prerequisite: Upper division standing or consent of instructor. This course may be repeated for a maximum of 6 units.

PHYS 4200. Electronics Instrumentation (3)

Introduction to basic electronics and fundamental electronic measuring instruments. The student will study the experimental setup in an actual system used in his field of interest, chosen from the current literature. (Lecture, 2 hours; laboratory, 3 hours). Prerequisite: Upper division standing or consent of instructor.

PHYS 4450. Nuclear Physics (3)

Elements of nuclear structure, radioactivity, interaction of nuclear radiations with matter, detection of nuclear radiation, fission and fusion, nuclear models. Prerequisite: PHYS 3520 or consent of instructor.

PHYS 4530. Thermal and Statistical Physics I (3)

Thermodynamics and statistical mechanics. A unified approach following Gibbs, based on a microscopic description using quantum states. Fermi, Bose, and "Classical" systems are discussed, with applications to standard and current topics. Prerequisite: PHYS 2260.

PHYS 4540. Thermal and Statistical Physics II (2)

Continuation of PHYS 4530. Prerequisite: PHYS 4530 or consent of instructor.

PHYS 4560. Solid State Physics (3)

Crystal structure, metal crystals, molecular crystals. Thermal, electrical, magnetic properties of crystals. Free electron model of metals, band theory of solids. Prerequisite: PHYS 3520.

PHYS 4900. Modern Optics (3)

Principles of geometrical optics; reflection, refraction, polarization, coherence and interference, Kirchhoff's diffraction theory, Fourier methods in optics, optics of solids, lasers and holography. Prerequisite: PHYS 2260.

PHYS 4930. Lasers and Holography (4)

Interference and coherent light, holographic recording and image reconstruction, properties of holograms and a geometric interpretation, semiclassical radiation fields, coherence theory, induced and spontaneous emission, theories and properties of lasers. (Lecture, 3 hours; laboratory, 3 hours) Prerequisite: PHYS 2260.

PHYS 4950. Selected Topics in Physics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physics. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHYS 4970. Selected Topics offered during Winter Term (4)

PHYS 4980. Individual Study (1-4)

For students capable of independent work in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

PHYS 5980. Individual Study (1-4)

For qualified students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

PHYSICAL SCIENCES

Lower Division

PHSC 1300. Environmental Pollution (2)

Survey of the pollution of the air, water, and land environment. The physical and chemical aspects of pollution by chemicals, pesticides, wastes, radioactivity, heat, and noise. (Lecture, 2 hours). No prerequisites.

PHSC 2100. Basic Meteorology (3)

Survey of general meteorology; basic principles concerning behavior of the atmosphere and the physical processes underlying weather phenomena. Topics include: atmospheric structure and circulation, thermodynamic properties of the atmosphere; air mass and fronts; weather map analysis and forecasting. Topics such as contaminants in the atmosphere and their effects on atmospheric energy balance and condensation may be included. (Lecture, 3 hours) Prerequisite: High school mathematics.

PHSC 2950. Selected Topics in Physical Sciences (Topic to be specified in Class Schedule) (1-5)

Dévelopment of a selected branch of physical sciences. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

PHSC 2970. Selected Topics offered during Winter Term (4)

Upper Division

PHSC 3000. Physical Science of the Environment (3)

Fundamental physical science aspects of environmental science. Topics include air pollution and associated atmospheric science, water pollution, nuclear energy and radioactive pollution, thermal pollution, and other environmental subjects. Prerequisite: Upper division standing or consent of instructor.

PHSC 4950. Selected Topics in Physical Sciences (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of physical science. Topics may vary each term. Different topics may be taken for credit.

Prerequisite: Consent of instructor.

Physics and Physical Sciences

PHSC 4960. Physical Sciences Seminar (1)

Presentation and discussions of selected topics in physical sciences from current literature. May be repeated for credit. Prerequisite: Consent of instructor.

PHSC 4970. Selected Topics offered during Winter Term (4)

PHSC 4980. Individual Study (1-4)

For students capable of independent work in need of advanced and specialized study. The Physical Sciences Department encourages students to submit proposals in areas of their interest. The proposal should outline their projects and exhibit concrete plans for their successful completion. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

PHSC 5980. Individual Study (1-4)

For qualified students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

ASTRONOMY

Lower Division

ASTR 2100. Descriptive Astronomy (3)

Development of astronomical thought from Ptolemy to Einstein; the earth and the moon, atoms, light and the tools of astronomers, planets, comets, and meteors, the sum, stars, stellar evolution, galaxies and cosmology, new findings of space programs, extraterrestial life. (Lecture, 3 hours) No prerequisites.

ASTR 2110. Astronomy Laboratory (1)

Telescope observations of the moon, planets, their satellites, and sunspots. Laboratory experiments related to astronomy. Prerequisite: ASTR 2100 or concurrent enrollment in ASTR 2100. (Laboratory, 3 hours)

ASTR 2970. Selected Topics offered during Winter Term (4)

Upper Division

ASTR 3000. Contemporary Astronomy (3)

A survey of recent developments in astronomy: gamma ray, X-ray, ultraviolet, infrared, and gravitational astronomy; interstellar

molecules, radio galaxies, quasars, pulsars and black holes; new trends in cosmological thinking, new findings of space programs. Prerequisite: ASTR 2100.

ASTR 3200. Planetary and Space Science (3)

Study of the structure of the planets, their atmospheres, interplanetary plasma, theories of origin of the planets and of planetary atmospheres, new developments of space programs. Additional topics of current interest may be added. Prerequisite: ASTR 2100.

ASTR 3500. Observational Astronomy (3)

Simple techniques and instruments of optical observations of astronomical objects; astrophotography, photometry, and reduction of photographic and photometric data; laboratory projects.
(Lecture, 1 hour; laboratory, 6 hours) Prerequisite: ASTR 2100.

ASTR 4970. Selected Topics offered during Winter Term (4)

GEOLOGY

Lower Division

GEOL 2100. Principles of Geology (3)

Survey of the structure and materials of the outer portion of the earth and the geological processes responsible for sculpturing the earth of today. (Lecture, 3 hours) No prerequisites.

GEOL 2110. Geology Laboratory (1)

Laboratory to accompany GEOL 2100; one or more field trips. (Laboratory, 3 hours) Prerequisite: GEOL 2100 or concurrent enrollment in GEOL 2100.

GEOL 2970. Selected Topics offered during Winter Term (4)

Upper Division

GEOL 3000. Physical and Environmental Geology (3)

Structural geology, global tectonics, and other topics of physical geology. Interaction of man with his geological environment, hazards from earthquakes and landslides, disposal of wastes in land and waters, conservation of minerals and resources, geology and regional planning. Prerequisite: GEOL 2100.

Physics and Physical Sciences

GEOL 4200. Earth Science I (3)

Study of physical properties of rocks, earth's internal structure, seismic techniques of earthquakes, gravity and magnetic properties of the earth. Prerequisite: GEOL 2100 and 2110, or consent of instructor.

GEOL 4210. Earth Science II (3)

Continuation of GEOL 4200. Prerequisite: GEOL 4200.

GEOL 4500. Field Geology (4)

Study of geological maps and preparation of local maps for use in field study; locate and study specific geologic structure. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: GEOL 2100-2110, or consent of instructor.

GEOL 4970. Selected Topics offered during Winter Term (4)

Political Science

Paul F. Magnelia, Ph.D., Professor, Chairman Kenneth Entin, Ph.D., Associate Professor John M. Hess, M.A., Associate Professor Richard Mendes, Ph.D., Associate Professor Gary C. Shaw, Ph.D., Associate Professor John T. Wold, Ph.D., Associate Professor Steven Hughes, Ph.D., Assistant Professor

The Department of Political Science offers the degree Bachelor of Arts, Political Science. The primary objective of the major in political science is to provide a core for a liberal arts education that will prepare the student to assume and execute his responsibilities intelligently as a citizen in a consciously self-governing community. The major program also provides appropriate preprofessional training for the student who intends to enter graduate school, study for a teaching credential, or pursue one of the careers listed below.

Careers in Law:

While all prelaw students should have a strong background in the liberal arts, many can benefit in particular from courses offered by the Department of Political Science. Especially recommended are courses dealing with the judiciary and other aspects of American politics. The department also participates in the Administration of Justice program. Prelaw students interested in advising should contact the department.

Careers in Government:

The Department of Political Science offers courses in the field of public administration specifically designed for those who wish to pursue a career in government. A Public Service Intern Project, an integral aspect of the program, enables students to gain practical experience in local, county, and state governments.

Careers in Foreign Affairs:

The Department of Political Science offers a number of courses which help prepare students interested in entering foreign service on the various international organization. These courses are combined with courses in related disciplines.

Political Science

REQUIREMENTS FOR THE BACHELOR OF ARTS, POLITICAL SCIENCE

Political Science majors are to:

- 1. Complete the requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- Complete the major of not less than 25 upper division units. Eight units of Winter Term CR graded course work may apply toward the major.
- 4. Completion of a minor is not required.

DEGREE MAJOR IN POLITICAL SCIENCE

Prerequisites to the Major

Required courses in the major field

PSCI 1200. American Government, 3 units
PSCI 2000. Introduction to Political Science, 3 units
(recommended)
or PSCI 2010. Modern Political Ideologies, 3 units

Required courses in supporting fields: Two of the following:

ANTH 2060. Introduction to Cultural Anthropology, 3 units ECON 2500. Principles of Economics I, 4 units

GEOG 2400 or 2410. World Regional Geography I or II, 3 units

SOCL 1010. Introduction to Sociology, 3 units

Strongly recommended:

MATH 1600. Statistics, 4 units

The Major	Units
PSCI 3000. Ancient & Medieval Political Thought or PSCI 3010. Modern Political Thought PSCI 3100. Scope & Methods of Political Science	. 4
One 3000-level course from each of the following fields American Politics, Comparative Politics, International Relations	
adviser	. 9
Total	. 25

PUBLIC ADMINISTRATION CONCENTRATION within the B.A. Degree

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Lower	Divi	Sion

Complete prerequisites to the major described on the preceding page.

Uppe	er Division Units
1.	PSCI 3100. Scope & Methods of Political Science 4 One course in Political Theory & Methodology 3-4 One 3000-level course in Comparative Politics 3-4 One 3000-level course in International Relations
2.	PSCI 3300. Introduction to Public Administration . 3 PSCI 4300. Organizational Theory, 4 units or SOCL 4800. Formal Organizations, 3 units 3-4 BUS 2110. Principles of Financial Accounting, 4 units
	or BUS 3310. The Administrative Process, 3 units $3-4$ 9-11
3.	One of the following courses
	PSCI 3330. California Politics, 3 units PSCI 4330. Urban Politics, 4 units PSCI 4420. Comparative Bureaucracies, 3 units
4.	One of the following courses
	PSCI 3210. Legislative Process, 3 units PSCI 3220. Constitutional Law, 4 units PSCI 3230. Political Parties & Interest Groups, 4 units PSCI 3250. Public Opinion & Voting Behavior, 4 units PSCI 4230. The Chief Executive, 3 units
5.	One of the following courses 3
	ECON 3150. National Income Analysis, 3 units ECON 4540. Public Finance & Fiscal Policy, 3 units ECON 4550. Taxation & the American Economy, 3 units
6.	One course selected from either A or B $\dots \dots 3-4$
	A. GEOG 4350. Urban Geography, 4 units HIST 3640. Contemporary America, 3 units SOCL 3210. Urban Sociology, 3 units ECON 4600. Urban Economics, 3 units B. BUS 2130. Managerial Accounting, 4 units
7.	Upper division units in political science to total the 25 units required for the B.A. degree.

DEGREE MINOR IN POLITICAL SCIENCE

Sixteen units approved by the minor adviser are required, including at least 10 units in upper division courses.

MASTER OF PUBLIC ADMINISTRATION

The Department of Political Science and the Department of Economics jointly offer graduate study leading to the degree of Master of Public Administration. The program of study is designed for those who are preparing for careers in public service, for those already in public service who seek professional development in their careers, and those who are preparing for teaching and research in the field. For further information, see section on Public Administration.

LIBERAL STUDIES CONCENTRATION IN POLITICAL SCIENCE

Twenty units, including at least 15 upper division units.

Lower Division Uni	its
PSCI 2010. Modern Political Ideologies, 3 units or PSCI 2600. Issues in International Politics	3
Upper Division	
At least two courses selected from the following: 6-	8
PSCI 3400. Comparative Politics: Europe, 3 units	
PSCI 3410. Comparative Politics: Latin America, 4 units	
PSCI 3420. Comparative Politics: East Asia, 4 units	
PSCI 3450. Comparative Politics: USSR & Eastern	
Europe, 3 units	
PSCI 3460. Politics of Developing Areas, 4 units	
At least two courses selected from the following: 6-8	8
PSCI 3210. Legislative Process, 3 units	
PSCI 3230. Political Parties & Interest Groups, 4 units	
PSCI 3250. Public Opinion & Voting Behavior, 4 units	
PSCI 4230. The Chief Executive, 3 units	
PSCI 4330. Urban Politics, 4 units	
Electives	5
Total	0

TEACHING CREDENTIALS

Majors in political science interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.

POLITICAL SCIENCE SUB-AREAS

POLITICAL THEORY AND METHODOLOGY

- PSCI 3000. Ancient & Medieval Political Thought, 3 units
- PSCI 3010. Modern Political Thought, 3 units
- PSCI 3030. American Political Thought, 2 units
- PSCI 3050. Marxist Political Thought, 2 units
- PSCI 3060. Contemporary Political Thought, 2 units
- PSCI 3100. Scope & Methods of Political Science, 4 units
- PSCI 3110. Research Design Seminar in Political Science,
- 3 units
- PŠCI 4020. Selected Topics in Political Theory, 1-3 units

AMERICAN POLITICS

- PSCI 3210. Legislative Process, 3 units
- PSCI 3220. Constitutional Law, 4 units PSCI 3230. Political Parties & Interest Groups, 4 units
- PSCI 3250. Public Opinion & Voting Behavior, 4 units
- PSCI 3260. Urban Justice, 3 units
- PSCI 3300. Introduction to Public Administration, 3 units
- PSCI 3330. California Politics, 3 units
- PSCI 4200. Problems in Civil Liberties, 3 units
- PSCI 4210. The Judicial Process, 3 units
- PSCI 4220. Simulation-Supreme Court Decision-Making, 3 units
- PSCI 4230. The Chief Executive, 3 units
- PSCI 4300. Organization Theory, 4 units
 - PSCI 4310. Public Policy Analysis, 4 units
 - PSCI 4320. Minority Politics, 3 units
 - PSCI 4330. Urban Politics, 4 units
 - PSCI 4340. Public Administration Internship, 3 units

COMPARATIVE POLITICS

- PSCI 3400. Comparative Politics: Europe, 3 units
- Comparative Politics: Latin America, 4 units PSCI 3410.
- PSCI 3420. Comparative Politics: East Asia, 4 units
- PSCI 3450. Comparative Politics: USSR & Eastern Europe, 3 units
- PSCI 3460. Politics of the Developing Areas, 4 units
- PSCI 4420. Comparative Bureaucracies, 3 units
- PSCI 4440. Elites & Public Policy in Latin America, 3 units
- PSCI 4900. Seminar in Criminal Justice, 3 units
- PSCI 4950. Selected Topics in Political Science, 1-5 units
- PSCI 4960. Senior Seminar, 3 units
- PSCI 4980. Individual Study, 1-4 units

Political Science

INTERNATIONAL RELATIONS

- PSCI 3600. International Relations, 4 units
- PSCI 3620. Soviet Foreign Policy, 3 units
- PSCI 4610. National Security Admin. & Policy Making, 3 units
- PSCI 4620. International Dimensions of National Security, 3 units
- PSCI 4630. Inter-American Affairs, 3 units

INTERDISCIPLINARY

PSCI 4700. The Political Novel, 4 units

GRADUATE

- PSCI 5800. Public Administration: Demarcation & Problem-
 - Situation, 3 units
- PSCI 5810. Public Administration: Structures, Processes
 - and Behaviors, 3 units
- PSCI 5870. Logic & Method in Administrative & Policy
 - Research, 3 units

COURSE DESCRIPTIONS

Lower Division

PSCI 1200. American Government (3)

Critical analysis of American political structures and processes. Meets U.S. Constitution and California state and local government requirements for General Education. (Formerly 202)

PSCI 2000. Introduction to Political Science (3)

To examine the foundations of political science and political behavior in the West. Emphasis is placed on broadening the understanding of political science as a discipline. Recommended for majors. (Formerly 220)

PSCI 2010. Modern Political Ideologies (3)

Survey of the theory and practical application of modern political ideologies. Included in the survey will be communism, fascism, democracy, and technology. (Formerly 222)

PSCI 2600. Issues in International Politics (3)

Study of contemporary issues in international relations. Such topical items as East-West relations, emerging role of small nations, and population and technological factors affecting the international system are included in the course.

PSCI 2900. Library Resources & Bibliographical Control for Research in Political Sciences (2)

Survey of abstracts, bibliographies, biographical directories, book review indexes, dictionaries, documents, encyclopedias, and indexes for historical research; and the application of footnote and bibliographical methods for political science majors.

Prerequisite: None. (Same as HIST 3900)

PSCI 2950. Selected Topics in Political Science (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of political science. Topics may vary each term. Different courses may be taken for credit. Prerequisite: Consent of instructor.

PSCI 2970. Selected Topics offered during Winter Term (4)

Upper Division

PSCI 3000. Ancient & Medieval Political Thought (3)

Historical development of political philosophy from ancient times to seventeenth century. Prerequisite: PSCI 1200.

PSCI 3010. Modern Political Thought (3)

Political thought from seventeenth century to present, with emphasis on such European philosophers as Hobbes, Locke, Rousseau, and Marx. (Formerly 300) Prerequisite: PSCI 1200.

PSCI 3030. American Political Thought (2)

Main trends of American political thinking from colonial times to the present. (Formerly 400) PSCI 3000 recommended.

PSCI 3050. Marxist Political Thought (2)

Examination of the foundations and philosophical assumptions of Marxist theory. PSCI 3000 recommended.

PSCI 3060. Contemporary Political Thought (2)

Readings in political philosophy focusing on the technological society. Included in the readings will be Marxist revisionism, existentialism, behavioralism, and selected utopian reactions to technology. PSCI 3000 recommended.

PSCI 3100. Scope and Methods of Political Science (4)

This course is designed to introduce students to the basic assumptions and techniques of empirical political science. Topics

Political Science

to be discussed include the philosophy of the scientific method, the structure of theory and models, the measurement of political science data processing equipment to handle large amounts of information. Prerequisite: PSCI 1200. MATH 1600 recommended.

PSCI 3110. Research Design Seminar in Political Science (3)

This course will focus upon the construction and implementation of political science experiments and surveys. It will include a discussion of the sources of bias and error in political science research. Prerequisite: PSCI 3100.

PSCI 3210. Legislative Process (3)

Analysis of the procedures and politics of legislatures with emphasis on the American Congress; executive-legislative relations, and proposals for congressional reform are also examined. (Formerly 354) Prerequisite: PSCI 1200.

PSCI 3220. Constitutional Law (4)

A study of the nature and scope of judicial review in American politics, focusing specifically on the development of lines of precedence in the areas of commerce, due process (substantive and procedural), equal protection, and First Amendment freedoms. Prerequisite: PSCI 1200.

PSCI 3230. Political Parties and Interest Groups (4)

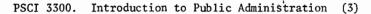
Study of the organization and activities of political parties and interest groups in the American political system. Emphasis is placed on the varieties and techniques of interest groups, the role of parties in elections and party reform. (Formerly 351) Prerequisite: PSCI 1200.

PSCI 3250. Public Opinion and Voting Behavior (4)

American voting behavior, psychological dimensions of citizen decision-making in a democracy, political attitudes and beliefs and campaign tactics. Field work. (Formerly 362) Prerequisite: PSCI 1200.

PSCI 3260. Urban Justice (3)

Overcrowded courts, discrimination, infringements on personal privacy, and the political influence of organized crime are problem areas of contemporary urban life. This course deals with these and related topics. Prerequisite: PSCI 1200.



This course is an introduction to the study of principles and problems in administrative procedure in public organizations. Specific areas of examination include the relationship between bureaucratic and democratic theory, organization theory, personnel administration, fiscal and budgetary policy, and regulatory administration. (Formerly 370) Prerequisite: PSCI 1200.

PSCI 3330. California Politics (3)

A study of politics and decision-making in California. Emphasis is placed on the ways public officials and private groups interact in the political area. Prerequisite: PSCI 1200.

PSCI 3400. Comparative Politics: Europe (3)

This course is designed to acquaint the student with the comparative approach to the study of European politics by emphasizing the similarities and differences of social and cultural variables as they impinge upon the institutions of government. (Formerly 311) Prerequisite: PSCI 1200.

PSCI 3410. Comparative Politics: Latin America (4)

A general survey of the politics of Latin America. Course includes historical factors affecting nature of contemporary politics; the nature of contemporary political developments; the role of such forces as military, the church, and the United States, and the nature of revolution in Latin America. Prerequisite: PSCI 1200.

PSCI 3420. Comparative Politics: East Asia (4)

An examination of the dynamics of the major governments of East Asia, especially China and Japan. (Formerly 343, 344) Prerequisite: PSCI 1200.

PSCI 3450. Comparative Politics: USSR and Eastern Europe (3)

An analysis of government, politics, and political development in communist political systems. Primary focus in the course will be on the USSR. (Formerly 317) Prerequisite: PSCI 1200.

PSCI 3460. Politics of the Developing Areas (4)

Analysis of the process of political change in the areas of Asia, Africa, Latin America, and the Middle East. Course will focus on such issues as nation-building, political dependence, and revolution. Prerequisite: PSCI 1200.

Political Science

PSCI 3600. International Relations (4)

Introduction to the elements of international relations. Work in lab simulation will be an integral part of the course. Prerequisite: PSCI 1200.

PSCI 3620. Soviet Foreign Policy (3)

Analytical and historical examination of Soviet policy. Emphasis on the role of communist ideology, Russian tradition, and politics of the Soviet Union. (Formerly 434) Prerequisite: PSCI 1200.

PSCI 4020. Selected Topics in Political Theory (1-3)

Analysis and discussion of selected issues and/or systems in political theory. May be repeated up to 6 units. (Formerly 401) PSCI 3000 recommended.

PSCI 4200. Problems in Civil Liberties (3)

An examination of selected issues in American civil liberties, emphasizing such areas as speech, religion, criminal procedures, public school desegregation, voting, and personal security. Designed especially for pre-law and advanced students. Prerequisite: PSCI 1200. PSCI 3220 recommended.

PSCI 4210. The Judicial Process (3)

A study of judicial decision-making and of the organization of the American judiciary. Emphasis is placed on the federal courts. (Formerly 457) Prerequisite: PSCI 1200. PSCI 3220 strong recommended.

PSCI 4220. Simulation-Supreme Court Decision-Making (3)

A study of decision-making in the United States Supreme Court through the use of discussions and simulations of the decisional process. Prerequisite: PSCI 1200.

PSCI 4230. The Chief Executive (3)

A study of the chief executive in American national government. The roles, responsibilities, powers and limits of the President and other decision-makers in the Executive Branch are analyzed; and the centrality of the executive in the American political system is emphasized. (Formerly 320) Prerequisite: PSCI 1200.

PSCI 4300. Organization Theory (4)

The study of public administration is concerned with current literature on organizational behavior. The public bureaucracy

is the largest of all complex organizations. This course is designed to acquaint the student with current research in this area. Research projects required. Prerequisite: PSCI 1200. PSCI 3300 recommended.

PSCI 4310. Public Policy Analysis (4)

Public Policy Analysis will deal with various approaches, emphasizing systems theory and economic theory as they are applied to specific policy areas. Research projects required. Prerequisite: PSCI 1200. PSCI 3300 recommended.

PSCI 4320. Minority Politics (3)

Study of strategies and styles of minority groups in the American political system with emphasis on White ethnic groups, Blacks, Mexican-Americans, Japanese, and Indians. Critical analysis of recent innovative attempts to deal with minority problems. (Formerly 494) Prerequisite: PSCI 1200. PSCI 3310 recommended.

PSCI 4330. Urban Politics (4)

Study of politics, organization, and problems at the urban level with emphasis on the responses of state and federal governments to the needs and demands of cities. Field work. (Formerly 331) Prerequisite: PSCI 1200.

PSCI 4340. Public Administration Internship (3)

The Public Administration Intern program is designed to provide experience working with local, county, and state governments. Readings and papers will be assigned on the basis of individual projects. Prerequisites: PSCI 1200, 3300.

PSCI 4420. Comparative Bureaucracies (3)

This course treats the administrative systems of the major western nations in terms of rules, administrative roles, recruitment patterns, supervision, and controls. Prerequisite: PSCI 1200. PSCI 3300 recommended.

PSCI 4440. Elites and Public Policy in Latin America (3)

An analysis of the political behavior of Latin American elites and their impact on public policy. Emphasis is placed on the relationship between elite recruitment and public policy in Chile, Cuba, and Mexico. Prerequisite: PSCI 1200.

PSCI 4610. National Security Administration & Policy Making (3)

Study of national security decision-making with emphasis on

Political Science

the roles played by civilian executive officials, the military, Congress, and industry. Survey and critical analysis of American defense policy. Prerequisite: PSCI 1200. PSCI 3600 recommended.

PSCI 4620. International Dimensions of National Security Policy (3)

Study of contemporary international tensions and conflicts in their political, economic, and military aspects; the role of alliances and other security systems; disarmament and arms control; strategic doctrines and national defense policies.

Prerequisite: PSCI 1200. PSCI 3600 recommended.

PSCI 4630. Inter-American Affairs (3)

A study of political relations among the countries of the western hemisphere with particular emphasis on U.S.-Latin American relations. Prerequisite: PSCI 1200.

PSCI 4700. The Political Novel (4)

An examination of the ways in which political activity and belief give shape to certain novels, particularly in America.

PSCI 4900. Seminar in Criminal Justice (3)

A seminar in the development of and current trends in the administration of criminal justice. Emphasis will be placed upon relevant constitutional, statutory, and procedural problems. Specific focus will be on the functions of the police and the judiciary. Prerequisites: PSCI 1200 and consent of instructor.

PSCI 4950. Selected Topics in Political Science (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of political science. Topics vary each term. Different topics may be taken for credit.

PSCI 4960. Senior Seminar (3)

Topic to be selected from one of the four major areas: Political Theory, Comparative Systems, International Relations, American Politics. May be repeated for a maximum of 6 units. Prerequisite: Consent of instructor.

PSCI 4970. Selected Topics offered during Winter Term (4)

PSCI 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Graduate

PSCI 5800. Public Administration: Demarcation and Problem-Situation (3)

Overview of public administration as distinct study, the object and scope of study. Methodological and theoretical problems, problem-situation substantive problems of the field.

PSCI 5810. Public Administration: Structure, Processes, and Behaviors (3)

Analysis of public administrative organizations and agencies: political; economic, and social aspects. Special attention will be given to such matters as autonomy and control, responsiveness and accountability; executive-legislative relations, inter-governmental relations, personnel systems, budget systems, and information systems.

PSCI 5820. Seminar in Problems of Public Administration (3)

Analysis of selected topics in public administration. Topics may vary each semester. Such topics may include, e.g., Professions, Public Policy and Politics; Urban Area Administration and Policy; Soical Science Implications in Public Policy.

PSCI 5830. Administrative Law and Public Policy (3)

Basic principles of constitutional and administrative law, leading cases, judicial decisions affecting powers, procedures and processes of governmental agencies; e.g., decision-making processes in execution of administrative legislation, adjudication and discretion duties, rights and liabilities of public officials.

PSCI 4870. Logic and Method in Administrative and Policy Research (3)

This course will focus upon the basis of empirical research, the collection and analysis of quantitative data for the purpose of decision-making. Prerequisite: An introductory course in social science methodology or statistics, or consent of instructor.

PSCI 5970. Selected Topics offered during Winter Term (4)

PSCI 5980. Individual Study (1-4)

For postbaccalaureate students in Public Administration who seek advanced and specialized study. Prerequisites: Consent of instructor and approval of graduate adviser.

PSCI 5990. Thesis (3)

Thesis research. May be repeated for a total of 6 units. Prerequisites: Consent of instructor and approval of graduate adviser.

Psychology

Lewis E. Holt, Ph.D., Associate Professor, Chairman
W. Mack Goldsmith, Ph.D., Professor
V. Kenneth Shrable, Ph.D., Professor
Wm. Edgar Boblitt, Ph.D., Visiting Lecturer in Psychology
Lee Ann Elliott, Ph.D., Associate Professor
Stanley E. Sherman, Ph.D., Associate Professor
Thomas A. Gentry, Ph.D., Assistant Professor
Gary D. Novak, Ph.D., Assistant Professor
James L. Wakefield, Jr., Ph.D., Assistant Professor
R. Frank Wallace, Ph.D., Assistant Professor

The Department of Psychology offers the Bachelor of Arts and Master of Science, Psychology. Concentrations in Clinical Psychology, Correctional Psychology, and School Psychology are available in the M.S. program. The objective of the major program is to provide for those who: (1) wish to extend their education in the liberal arts with an emphasis on psychology, (2) plan to enter a profession or occupation in which a strong background in psychology is necessary, or (3) wish to prepare for graduate work in psychology. The Department of Psychology also offers a minor in Psychology.

The School of Behavioral and Social Sciences offers a Bachelor of Arts, Social Sciences, with an interdepartmental major in psychology and any other two disciplines within the social sciences. (For further information, see Social Sciences.)

REQUIREMENTS FOR BACHELOR OF ARTS, PSYCHOLOGY

Psychology majors are to:

- 1. Complete requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- Complete the major of not less than 26 upper division units, as approved by the major adviser; of these, no more than 8 units of CR graded Winter Term course work may apply toward the major.
- 4. Completion of a minor is not required.

DEGREE MAJOR IN PSYCHOLOGY

Prerequisites to the Major:

PSYC 2010. Introduction to Psychology, 3 units, or equivalent PSYC 2020. Introduction to Psychological Methods, 3 units, or equivalent

Required course	es in	supporting	fields
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1.	ANTH 2060.	Introducti	ion to	Cultura	l Anthropology	,	3 units
	or	SOCL 1010.	Intro	luction 1	to Sociology,	3	units

BIOL 1010. Principles of Biology, 4 units or ZOOL 1050. Introduction to Zoology, 4 units 2.

Recommended course in supporting field:

MATH 1600. Statistics, 4 units

3 units

MAIN 1000. Statistics, 4 units
The Major Units
PSYC 3000. Experimental Methods and Design, 4 units 4
At least 2 laboratory courses from the following 2 PSYC 3300. Social Psychology Laboratory, 1 unit PSYC 3490. Perception and Cognition Laboratory, 1 unit PSYC 3690. Learning and Motivation Laboratory, 1 unit
Upper division courses in psychology as approved by major adviser
Total
Majors are normally expected to take a broad basic program consisting of at least 2 courses from Group I, and 1 course from Groups II and III.
Group I
PSYC 3130. Human Development, 3 units PSYC 3160. Introduction to Psychological Testing, 3 units PSYC 3790. Introduction to Counseling Theory, 3 units PSYC 4150. Learning Disabilities, 3 units PSYC 4750. Applied Behavior Analysis with Learning Handicapped, 3 units PSYC 4780. Behavioral Engineering in Educational Settings, 3 units
Group II
PSYC 3090. Comparative Animal Behavior, 3 units PSYC 3100. Introduction to Physiological Psychology, 4 units PSYC 3110. Behavior Genetics, 3 units PSYC 3520. Principles of Sensory Processes, 4 units PSYC 4720. Experimental Analysis of Behavior, 3 units
Group III
PSYC 3310. Introduction to Social Psychology, 3 units PSYC 3320. Introduction to Personality, 3 units PSYC 3350. Introduction to the Study of Abnormal Behavior,

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Psychology

DEGREE MINOR IN PSYCHOLOGY

Eighteen units, to include at least 12 units in upper division.

Lower Division

PSYC 2010. Introduction to Psychology, 3 units PSYC 2020. Introduction to Psychological Methods, 3 units

Upper Division

Courses as approved by minor adviser, 12 units.

LIBERAL STUDIES CONCENTRATION IN PSYCHOLOGY

A liberal arts concentration in the area of Psychology must include the following course:

PSYC 2020. Introduction to Psychological Methods, 3 units

The student must also complete a minimum of 17 units of upper division psychology courses with at least two courses to be selected from Group I and one course from each of Groups II and III.

TEACHING CREDENTIALS

Psychology majors interested in teaching credentials are referred to the Education section of the catalog for a description of teaching credential programs.

LEARNING HANDICAPPED: SPECIAL EDUCATION CREDENTIAL

Students planning careers in the field of learning handicapped should consult with the credential adviser in the Department of Psychology regarding program requirements.

MASTER OF SCIENCE IN PSYCHOLOGY

The Department of Psychology offers graduate study leading to a Master of Science degree in Psychology. The primary purpose of the M.S. program in Psychology is to develop mastery of a substantial body of knowledge and skills for students planning careers in clinical, correctional, counseling, and school psychology. By selecting an emphasis in school psychology, a student can plan a program to complete requirements for the State Credentials of Psychometry and School Psychology. The student, in consultation with his faculty advising committee, develops a program of study appropriate to his career interests and goals.

Prerequisites for Admission to the Master of Science Degree Program:

 A bachelor's degree with 16 approved semester units in psychology including a background in experimental and research skills. These courses must be acceptable to the Psychology Graduate Committee in terms of course content and student performance. Students without the approved courses may be accepted into unclassified graduate standing. Such students will be given the opportunity to make up background deficiencies commensurate with graduate criteria.

- 2. Superior performance in the undergraduate major (3.0 GPA).
- Completion of a set of examinations which may be administered by the Psychology Department to determine those areas in which further preparation is required.
- 4. Approval by the Psychology Department.
- 5. Satisfactory performance on the Miller Analogies Test.

Continuation in the Degree Program:

- 1. Maintenance of a 3.0 GPA in all courses attempted.
- 2. Maintenance of satisfactory progress toward the degree.

REQUIREMENTS FOR THE DEGREE

- All students are required to complete the appropriate 50 semester units or their equivalent.
- All students complete the 34 core semester units listed in sections A, B, and C.
- 3. All students will complete a minimum of an additional 16 semester units chosen by himself with his advising committee and approved by the Graduate Committee. These courses will usually follow one of the special emphasis areas but may be specially selected to meet the student's unique career goal.
- 4. Students may satisfy any course requirement by demonstrating proficiency in the subject matter included in a required course. This will normally be done through challenge procedure or acceptable transfer credit.

A. Basic Requirements (10 units)

PSYC 5940. Field Work, 4 units PSYC 5990. Master's Thesis, 6 units

B. General Principles (14 units)

PSYC 4720. Experimental Analysis of Behavior, 3 units PSYC 4820. Group Dynamics Seminar, 3 units PSYC 5000. Proseminar I (Applied Research Methods), 4 units PSYC 5010. Proseminar II (Advanced Learning), 4 units

C. Clinical Principles (10 units)

PSYC 4360. Seminar in Clinical & Abnormal Psychology, 3 units PSYC 4770. Introduction to Counseling Techniques, 3 units PSYC 5030. Psychodiagnostics I, 3 units PSYC 5040. Psychodiagnostics I Laboratory, 1 unit

Psychology

Normally the student will choose the additional 16 semester hours from one of the following groups. Students interested in the School Psychology Credential must complete <u>all</u> of the courses listed under the School Psychology heading.

CLINICAL PSYCHOLOGY CONCENTRATION

- PSYC 4150. Learning Disabilities, 3 units
- PSYC 4750. Applied Behavior Analysis with Learning Handicapped, 3 units
- PSYC 4780. Behavioral Engineering in Educational Settings, 3 units
- PSYC 5130. Advanced Human Development, 3 units
- PSYC 5640. Advanced Seminar in Behavior Change, 3 units
- PSYC 5720. Behavioral Consultation, 2 units
- PSYC 5910. Practicum in Counseling & Diagnostics, 2 units
- PSYC 5930. Practicum in Behavior Modification, 2 units

SCHOOL PSYCHOLOGY CONCENTRATION

- EDUC 5040. Philosophy of Education, 2 units
- EDUC 5500. Organization of Public Education, 2 units
- EDUC 5520. Legal & Financial Aspects of Education, 3 units
- EDUC 5540. Exceptional Children and Youth, 3 units
- EDUC 5760. Pupil Personnel Services Seminar, 2 units
- PSYC 5050. Psychodiagnostics II, 3 units
- PSYC 5060. Psychodiagnostics II Laboratory, 1 unit
- PSYC 5130. Advanced Human Development, 3 units
- PSYC 5720. Behavioral Consultation, 2 units
- PSYC 5780. Advanced Counseling, 3 units
- PSYC 5910. Practicum in Counseling & Diagnostics, 2 units
- PSYC 5940. Field Work, 2 units

CORRECTIONAL PSYCHOLOGY CONCENTRATION

- SOCL 4120. Sociology of Crime and Delinquency, 3 units
- SOCL 4130. Sociology of Correction, 4 units
- SOCL 4140. Sociology of Law, 3 units
- SOCL 4250. Criminal Justice II, 3 units
- SOCL 5000. Seminar in Criminology, 3 units
- PSCI 4900. Seminar in Criminal Justice, 3 units
- PSYC 5910. Practicum in Counseling & Diagnostics, 2 units
- PSYC 5940. Field Work, 2 units

COUNSELING CONCENTRATION

- PSYC 5130. Advanced Human Development, 3 units
- PSYC 5720. Behavioral Consultation, 2 units
- PSYC 5780. Advanced Counseling, 3 units
- PSYC 5910. Practicum in Counseling & Diagnostics, 2 units

Electives:

PSYC 5050. Psychodiagnostics II, 3 units

PSYC 5060. Psychodiagnostics II Laboratory, 1 unit

PSYC 5790. Family Counseling Theory and Practice, 3 units

PSYC 5800. Marriage and Family Life, 3 units

PSYC 5970. Practicum in Marriage & Family Counseling, 2 units

PSYC 5980. Individual Study, 1-4 units

COURSE DESCRIPTIONS

Lower Division

PSYC 2010. Introduction to Psychology (3)

Scientific study of human behavior. This course or its equivalent is a prerequisite to all other courses in psychology, including all 2000-level courses.

PSYC 2020. Introduction to Psychological Methods (3)

Basic techniques and procedures for making systematic observations in a wide variety of psychological situations, both laboratory and field. Psychological methods demonstrated through topics of current research and application, and through demonstration-lab projects. Prerequisite: PSYC 2010 or equivalent.

PSYC 2040. Psychology of Sex Roles (3)

Psychological analysis of the sex roles in American society. Attention will be focused on the development of sex differences and concomitant psychological manifestations in societal roles and individual personality development. Prerequisite: PSYC 2010 or equivalent.

PSYC 2150. Psychology of Marriage and Adjustment (3)

Psychological and ethical aspect of marriage, family life, and personal adjustment. (Formerly 203 and 221) Prerequisite: PSYC 2010 or equivalent.

PSYC 2950. Selected Topics in Psychology (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of psychology. Topics may vary each term. Different topics may be taken for credit. Prerequisites: Consent of instructor and PSYC 2010 or equivalent.

PSYC 2970. Selected Topics offered during Winter Term (4)

Upper Division

PSYC 3000. Experimental Methods and Design (4)

Provides a working knowledge of fundamental scientific methods in psychology, stressing the integration of laboratory methods, measurement theory and inferential statistical techniques, including introduction to analysis of variance. This course is a prerequisite to the two laboratory courses, chosen from PSYC 3300, 3490 or 3690, required of psychology majors. (Formerly 400) Prerequisites: PSYC 2020 and completion of the General Education requirement in Logic-Math-Statistics. MATH 1600 is strongly recommended to meet this requirement.

PSYC 3080. Comparative Animal Behavior Laboratory (1)

Laboratory experiments and field observation will focus upon the ways in which different species deal with the basic biological problem of foraging and feeding, defense, and reproduction. Prerequisite: PSYC 3090 or concurrent enrollment.

PSYC 3090. Comparative Animal Behavior (3)

A comparative study of behavior systems in animals and man. Stress is upon the social and developmental aspects of behavior. Prerequisite: BIOL 1010 or ZOOL 1050. Concurrent enrollment in PSYC 3080 not required.

PSYC 3100. Introduction to Physiological Psychology (4)

Relationship between behavior and physiological processes, particularly neurophysiological processes. (Lecture 3 hours, laboratory 3 hours). Prerequisite: BIOL 1010 or ZOOL 1050.

PSYC 3110. Behavior Genetics (3)

Evaluation of the genotypic contribution to human and animal behavior. Special emphasis on the interaction between genotype and environment during development. Prerequisite: BIOL 1010 or ZOOL 1050.

PSYC 3120. Human Development Laboratory (1)

Systematic observation of human behavior at various stages of development. Prerequisite: Concurrent enrollment in PSYC 3130 or consent of instructor.

PSYC 3130. Human Development (3)

The psychology of development: infancy, childhood, adolescence, and maturity. Prerequisite: PSYC 2020. Concurrent enrollment in PSYC 3120 not required.

PSYC 3160. Introduction to Psychological Testing (3)

Basic, widely applicable principles of psychological testing, presented in a non-technical way, plus descriptions of representative types of psychological tests in common use. Prerequisite: PSYC 2020.

PSYC 3170. Early Cognitive Development (3)

Human behavior will be dealt with in naturalistic terms via an examination of child intellectual development, with emphasis on Piaget, Montessori, and other cognitive theorists. (Formerly 413) Prerequisite: PSYC 3130 or consent of instructor.

PSYC 3300. Social Psychology Laboratory (1)

Laboratory and field studies to demonstrate the variety of methods and content areas in social psychology. Prerequisites: PSYC 3000 and concurrent enrollment in PSYC 3310, or consent of instructor.

PSYC 3310. Introduction to Social Psychology (3)

Interpersonal relations including social attitudes, opinions, social structures, and group dynamics. (Formerly 431) Prerequisite: PSYC 2020. Concurrent enrollment in PSYC 3300 not required.

PSYC 3320. Introduction to Personality (3)

Survey of the most influential approaches to the study and understanding of personality with emphasis on comparison of critical, theoretical issues. (Formerly 321) Prerequisite: PSYC 2020.

PSYC 3350. Introduction to the Study of Abnormal Behavior (3)

Abnormal behavior in man, stressing symptoms and dynamics of neuroses and psychoses. (Formerly 435) Prerequisites: PSYC 2020 plus 2 additional courses in psychology. PSYC 3130 and PSYC 3320 are recommended.

PSYC 3490. Perception and Cognition Laboratory (1)

Laboratory experience in phenomena related to perception and cognition. Prerequisites: PSYC 3000 and concurrent enrollment in PSYC 3500, or consent of instructor.

PSYC 3500. Introduction to Perception and Cognition (3)

Basic phenomena in the related areas of perception and cognition. Simple and complex responses to stimuli. Concepts such

Psychology

as form perception and organization, color illusions, space, attention and thinking processes, decision-making, thinking and language. Prerequisite: PSYC 2020. Concurrent enrollment in PSYC 3490 not required.

PSYC 3520. Principles of Sensory Processes (4)

The psychophysical analysis of spatial and temporal properties of the human senses. (Lecture, 3 hours; laboratory, 3 hours). Prerequisite: BIOL 1010 or ZOOL 1050.

PSYC 3690. Learning and Motivation Laboratory. (1)

Laboratory experiments within the framework of human (e.g., verbal) learning for the purpose of introducing and implementing predominant statistical techniques associated with this area (i.e., analysis of variance, factorial designs, planned comparisons). Prerequisite: Concurrent enrollment in PSYC 3700 or consent of instructor.

PSYC 3700. Introduction to Learning and Motivation (3)

Basic phenomena of learning and motivation such as: instrumental and classical conditioning, stimulus generalization, verbal learning, transfer and retention, drives, rewards, and punishment. Prerequisite: PSYC 2020. Concurrent enrollment in PSYC 3690 not required.

PSYC 3790. Introduction to Counseling Theory (3)

Introduction to major theories of counseling. Demonstrations and review of current literature. (Formerly 477) Prerequisite: PSYC 3310 or 3320.

PSYC 4020. History of Psychology (3)

Trends of thought, development of psychology as a discipline with leaders, schools, and issues. Prerequisites: PSYC 2020 and two upper division courses in psychology, or consent of instructor.

PSYC 4150. Learning Disabilities (3)

Overview of the major categories of learning disabilities including educationally retarded and behavior disorders. Survey of instructional programs and review of supportive data for those programs. (Formerly 414) Prerequisite: PSYC 3130 or consent of instructor.

PSYC 4360. Seminar in Clinical and Abnormal Psychology (3)

Survey of theory and research in clinical and abnormal psychology, with emphasis on diagnosis and treatment systems. Prerequisites: PSYC 3130 or 3320, and 3350.

PSYC 4720. Experimental Analysis of Behavior (3)

Study of advanced application and methods in operant research, including practical experience in both laboratory and institutional settings. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: PSYC 2020.

PSYC 4750. Applied Behavior Analysis with Learning Handicapped (3)

Application of learning principles to educational and behavioral problems of individuals. Prerequisite: PSYC 4720.

PSYC 4770. Introduction to Counseling Techniques (3)

Training in basic counseling skills. (Lecture, 2 hours; laboratory, 3 hours) (Formerly 577) Prerequisites: PSYC 3790, senior standing, and consent of instructor.

PSYC 4780. Behavioral Engineering in Educational Settings (3)

Interpretation of Tearning theory principles and research in the design, implementation and evaluation of educational and prosocial programs. Prerequisites: PSYC 4150 and 4720.

PSYC 4820. Group Dynamics Seminar (3)

A critical review of theory, research, and practice related to group behavior, including factors influencing communication, decision-making, group cohesiveness, and productivity. Prerequisite: PSYC 3310 or consent of instructor.

PSYC 4900. Advanced General Psychology (3)

Review of the major content areas of psychology. Synthesis of concepts, facts, and methods studies in specialized upper division courses. (Formerly 597) Prerequisites: PSYC 3000 and senior standing.

PSYC 4940. Field Work in Psychology (1-2)

Work of a psychological nature performed in schools, agencies, and institutions under joint supervision of the department and agency where assigned. May be repeated for a total of 6 units, 2 of which can be applied to the major. Prerequisites: PSYC 2020 and prior consent of instructor.

PSYC 4950. Selected Topics in Psychology (Topics to be specified in Class Schedule) (1-5)

Development of a specific area in psychology. Topics will vary depending on instructor. Different topics may be taken for a total of 6 units. Prerequisite: Prior consent of instructor.

Psychology

PSYC 4970. Selected Topics offered during Winter Term (4)

PSYC 4980. Individual Study (1-4)

For students capable of independent work and desirous of undertaking specialized study. May be repeated for a total of 6 units. Prerequisite: Prior consent of instructor.

Graduate

PSYC 5000. Proseminar I (4)

Advanced seminar in psychological research methods and statistical analysis. Includes a formal research paper on an applied topic such as evaluation of an institution-related program. (Lecture, 3 hours; laboratory, 3 hours) Prerequisites: PSYC 3000 or consent of instructor, and graduate standing.

PSYC 5010. Proseminar II (4)

Study of advanced principles of learning and motivation with special reference to human learning. (Lecture, 3 hours; laboratory, 3 hours) Prerequisites: Graduate standing and consent of instructor.

PSYC 5030. Psychodiagnostics I (3)

Strategies of diagnostic evaluation with emphasis upon interviewing techniques, instruments for evaluation of intellectual capacities, achievement capacities, and personality structures. (Formerly 416, 561) Prerequisites: PSYC 3160, graduate standing, and consent of instructor.

PSYC 5040. Psychodiagnostics I Laboratory (1)

Supervised work with the application of diagnostic strategies to representative cases. (Formerly 416) Prerequisite: Concurrent enrollment in PSYC 5030.

PSYC 5050. Psychodiagnostics II (3)

Advanced concepts of diagnostic appraisal with emphasis upon strategies appropriate to the evaluation of personality disorders. Prerequisites: PSYC 5030 and 5040, or the satisfactory performance on competency examination corresponding to these courses.

PSYC 5060. Psychodiagnostics. II Laboratory (1)

Supervised work with the application of diagnostic principles to the evaluation of representative personality disorders. Prerequisite: Concurrent enrollment in PSYC 5050.

PSYC 5130. Advanced Human Development (3)

Empirical research on theoretical constructs of human development. Prerequisites: PSYC 3130 or equivalent and four upper division courses in psychology and graduate standing.

PSYC 5640. Advanced Seminar in Behavior Change (3)

Study of current theories and research in behavior therapy. Prerequisites: PSYC 4720, 4750, and graduate standing.

PSYC 5720. Behavioral Consultation (2)

Supervised work for consultation with classroom teachers. Prerequisites: Graduate standing and consent of instructor.

PSYC 5780. Advanced Counseling (3)

Counseling practices including commonly used methods of psychotherapy and practice in techniques of counseling. Prerequisites: PSYC 3790, 4770, and graduate standing.

PSYC 5790. Family Counseling Theory and Practice (3)

Study of theory and techniques of conjoint family therapy. Prerequisites: PSYC 3790, 4770, and graduate standing.

PSYC 5800. Marriage and Family Life (3)

The study of marriage and family life with special reference to current social problems in marriage and parent-child relationships. Prerequisites: Graduate standing and SOCL 3150.

PSYC 5900. Practicum in Marriage and Family Counseling (2)

Supervised experience in conjoint family and marriage techniques. A minimum of four counseling cases (couple or family) will be seen by each student. Emphasis will be on improved communication, goal setting, and contracts within families. Students will make a minimum of two formal written and oral presentations per semester to the faculty and fellow graduate students in case conferences. The student will also attend one formal supervision session per week with a designated instructor. (Formerly 597). Prerequisite: PSYC 5910.

PSYC 5910. Practicum in Counseling and Diagnostics (2)

Supervised experience in diagnostic testing, individual counseling and exposure as cotherapist to group counseling. There will be a minimum of four diagnostic workups, one continuous individual case, and one continuous group exposure per term. Students will make a minimum of two formal written and oral presentations

Psychology

per semester to the faculty and fellow graduate students in case conferences. The student will also attend one formal supervision session per week with the designated instructor. This course is the first in a sequence to be followed by PSYC 5930 or PSYC 5970, or both. Prerequisites: PSYC 3160, 4770, graduate standing, and consent of instructor.

PSYC 5930. Practicum in Behavior Modification (2)

Supervised experience in the assessment and modification of behavior with an emphasis on the conditioning of the behavior of children. A minimum of three cases will be seen with formal reports of assessment and change data. Students will make a minimum of two written and oral presentations per semester to the faculty and fellow graduate students in case conferences. The student will also attend one formal supervision session per week with the designated instructor. Prerequisite: PSYC 5910.

PSYC 5940. Field Work (1-4)

Work of a psychological nature performed in schools, agencies, and institutions under joint supervision of the college and agency where assigned. (Formerly 592) Prerequisites: Graduate standing and prior consent of instructor.

PSYC 5970. Selected Topics offered during Winter Term (4)

PSYC 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced and specialized study. Different topics may be taken for a total of 6 units. Exception to the 6-unit limit may be granted by the Graduate Committee. Prerequisite: Prior consent of instructor.

PSYC 5990. Master's Thesis (1-6)

Preparation of a thesis in area of specialty for partial fulfillment of requirements. Prerequisite: Admission to classified graduate standing.

Public Administration

Graduate Studies Committee

John M. Hess, M.A., Associate Professor of Political Science, Director

William Dale Crist, Ph.D., Associate Professor of Economics Richard G. Mendes, Ph.D., Associate Professor of Political Science

The Department of Political Science and the Department of Economics jointly offer graduate study leading to the degree of Master of Public Administration. The program is designed for persons preparing for careers in public service, research, and teaching. The program draws upon theories, concepts, and methods of the social, behavioral, and management sciences. The objective of the program is to provide the student with knowledge of and assistance in understanding of public administration in terms of its political, economic, and social aspects with special emphasis on (a) administrative organizations and administrative management, and (b) public policy and policy analysis.

ADMISSION REQUIREMENTS

- A baccalaureate degree from accredited college or university
- An undergraduate GPA of 2.5
- 3. Three letters of recommendation
- 4. Evaluation and approval of application by the Graduate Studies Committee in Public Administration

REQUIREMENTS FOR THE DEGREE

1. Unit Requirement

All students are required to complete a minimum of 30 semester units of upper division and graduate courses and seminars.

A minimum of 15 of these units must be graduate courses and/or seminars in Public Administration (identified subject-specific and/or discipline designate).

2. Course Requirement

All students are required to complete the following five required courses of the program and maintain a grade point average of at least B:

PSCI '4310. Public Policy Analysis, 4 units
PSCI 5800. Public Administration: Demarcation
and Problem-Situation, 3 units

Public Administration

PSCI 5810. Public Administration: Structures, Processes, & Behaviors, 3 units

PSCI 5870. Logic and Method in Administrative and Policy Research, 3 units

ECON 5850. Seminar in Public Finance and Fiscal Policy, 3 units

Students who have not had formal study in politics, economics, or mathematics-statistics may be advised to take basic courses in these fields prior to engaging them at the graduate level.

All students will complete in addition to the abovenoted required courses a minimum of some five elective courses (in the 4000-5000 series) chosen by the student in consultation with his adviser. These elective courses will permit some specialization and may be selected to meet each student's own career needs.

3. Thesis and Examination Requirement

All students are required to complete successfully one of the following options in partial fulfillment of the degree requirements:

- a. A written thesis with oral examination
- A comprehensive oral examination with submission of three written course and/or seminar papers, designated in advance for this purpose
- c. A written comprehensive examination

The option is to be selected by the student in consultation with his adviser.

4. Candidate Evaluation

The degree may be awarded to a student, advanced to candidacy, upon certification of successful completion of the required unit and course work, approval of a thesis or successfully passing an examination, and a review and approval of the candidate's overall graduate record by the Graduate Studies Committee.

MASTER OF PUBLIC ADMINISTRATION DEGREE

REQUIRED COURSES

PSCI 4310. Public Policy Analysis, 4 units

PSCI 5800. Public Administration: Demarcation & Problem Situation, 3 units

PSCI 5810. Public Administration: Structures, Processes, and Behavior, 3 units

PSCI 5870. Logic & Method in Administrative & Policy Research, 3 units

ECON 5850. Seminar in Public Finance & Fiscal Policy, 3 units

ELECTIVE COURSES

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PSCI 4210.
           The Judicial Process, 3 units
PSCI 4230. The Chief Executive, 3 units
PSCI 4300. Organizational Theory, 4 units
PSCI 4330. Urban Politics, 4 units
PSCI 4420. Comparative Bureaucracies, 3 units
PSCI 4900. Seminar in Criminal Justice, 3 units
PSCI 5820.
            Seminar in Problems of Public Administration,
            3 units
PSCI 5830.
           Administrative Law & Public Policy, 3 units
PSCI 5990. Thesis, 3 units
ECON 4100. Labor Economics, 3 units
            Collective Bargaining in the Public Sector,
ECON 4110.
            3 units
ECON 4300. Mathematical Economics I, 3 units
ECON 4400. Economic Development, 3 units
ECON 4430. International Economic Policies, 3 units
ECON 4450. Economic Planning, 3 units
ECON 4540. Public Finance & Fiscal Policy, 3 units
ECON 4550. Taxation \S the American Economy, 3 units ECON 4600. Urban Economics, 3 units
ECON 5990. Thesis, 3 units
BUS 4180. Management Information Systems, 3 units
BUS 4360. Human Problems in Administration, 3 units
BUS 4610. Personnel Administration, 3 units
BUS 4880. Organizational Behavior, 3 units
GEOG 4300.
            Geography of Resource Planning, 3 units
GEOG 4350. Urban Geography, 3 units
MATH 4460.
           Introduction to Operations Research II, 4 units
MATH 4840. Mathematics for Business, 3 units
SOCL 4130. Sociology of Correction, 4 units
SOCL 4140. Sociology of Law, 3 units
SOCL 4250. Criminal Justice II, 3 units
SOCL 4510. Personality Culture & Social Structure, 3 units
SOCL 4600. Industrial Sociology, 3 units
SOCL 4800. Formal Organizations, 3 units
SOCL 5000. Seminar in Criminology, 3 units
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Social Sciences

H. Dieter Renning, Dr. rer. pol., Coordinator

The Bachelor of Arts, Social Sciences, major is an interdepartmental degree program, consisting of courses in the following disciplines: anthropology, economics, geography, history, political science, psychology, sociology, speech communication.

A student majoring in social sciences may select one of the following options:

- A program of courses in three fields of interest, selected as shown under "Requirements" below.
- A program consisting of one of the following concentrations:

Administration of Justice (see p. 97) International Studies (see p. 254) Urban and Community Studies (see p. 384)

 A program designed for teaching credential candidates who wish to major in the social sciences

REQUIREMENTS FOR BACHELOR OF ARTS, SOCIAL SCIENCES

Social sciences interdepartmental majors are to:

- Complete the requirements for the Bachelor of Arts degree.
- Complete the general prerequisite: one lower division research methods course in the field of his major interest. These include PSYC 2020, SOCL 2030, PSCI 2000, HIST 2900. Students in other fields will take PSYC 2020 or SOCL 2030.
- 3. Complete the major of not less than 32 upper division units, as approved by the adviser, and distributed as follows:
 - 4 courses in the discipline of student's major interest
 - 3 courses in a second discipline
 - 3 courses in a third discipline
 - 1 Social Sciences Interdisciplinary Seminar
 - 11 courses of not less than 32 upper division units; of these no more than 8 units of CR graded Winter Term course work may apply toward the major.

RULES FOR SELECTION OF COURSES

ANTHROPOLOGY. Prerequisite: ANTH 2060, Introduction to Cultural Anthropology, 3 units. Note additional prerequisites to certain courses.

Any upper division course may be selected, with the adviser's consent.

ECONOMICS. Prerequisite: ECON 2500, Principles of Economics I, 4 units, or equivalent.

Upper division courses: Select one course from three or four of the following fields:

- 1. Economic Theory and Doctrines
- 2. Money and Banking
- 3. Public Finance and Fiscal Policy
- 4. Labor Economics
- 5. International Economics
- 6. Economic History

GEOGRAPHY: Prerequisite: One of the following:

GEOG 2010. Introduction to the Physical Environment, 3 units

GEOG 2020. Introduction to Cultural Geography, 3 units

GEOG 2400. , World Regional Geography I, 3 units

GEOG 2410. World Regional Geography II, 3 units

Upper division courses: At least one course selected from Group A, Topical (human or physical) Geography, or Group C, Methodology; and at least one course selected from Group B, Regional Geography.

HISTORY: Prerequisite: One year of lower division history, United States History, Western Civilization, or Non-Western History.

All students electing history as their field of major interest must take HIST 3000, Introductory Seminar. Courses should be selected in such a way that the student will have had at least one course, in either upper or lower division, in each of the following fields:

- 1. European History
- 2. United States History
- 3. Non-Western History

POLITICAL SCIENCE:

Prerequisite: PSCI 1200, American Government, 3 units

- 1. American Politics: Select 2 courses at the 3000 level.
- Select additional courses from:
 - a. Political Theory and Methodology
 - b. Comparative Politics
 - c. International Relations

PSYCHOLOGY: Prerequisites: PSYC 2010, Introduction to Psychology, and PSYC 2020, Introduction to Psychological Methods, or SOCL 2030, Research Methods.

Social Sciences

Upper division courses: Three courses from the following (four courses in field of major interest):

PSYC 3130. Human Development, 3 units

PSYC 3170. Early Cognitive Development, 3 units

PSYC 3310. Introduction to Social Psychology, 3 units

PSYC 3350. Introduction to Study of Abnormal Behavior,

3 units

PSYC 3500. Introduction to Perception & Cognition, 3 units

PSYC 3700. Introduction to Learning & Motivation, 3 units

SOCIOLOGY: Prerequisite: SOCL 1010. Introduction to Sociology, 3 units

Any upper division course may be selected with the adviser's consent.

SPEECH COMMUNICATION:

Prerequisite: SPCH 2010. Oral Communication Processes, 4 units

One course selected from each of the following groups; a fourth course may be selected from any of the groups.

- SPCH 3010. Language & Speech Development, 3 units SPCH 3050. General Semantics, 3 units
 - SPCH 4010. Structural & Psycholinguistics, 5 units
- 2. SPCH 4100. Group Communication, 3 units
 - SPCH 4120. Theory of Persuasion, 3 units
- 3. SPCH 4000. Communication Theory, 4 units
 - SPCH 4140. Rhetorical Theory, 3 units

NOTE: A student on entering the social sciences major should work out with his adviser a tentative program for the remainder of his undergraduate course. Thenceforth, he should work out a trial study list prior to each advising appointment. In such a broad major, close cooperation between adviser and advisee is necessary if mistakes are to be avoided.

TEACHING CREDENTIALS

- A. By postponing his student teaching until his fifth year, a student may pursue a dual major (Liberal Studies and Social Sciences) which leads to a multiple subject credential and a single subject credential in the social sciences. This may be accomplished by the following:
 - Complete the liberal studies requirements (See Liberal Studies section) with a concentration in one of the following social sciences fields: anthropology, economics, geography, history, political science, psychology, sociology, speech communication.

- Complete three upper division courses in each of two other social sciences fields and the Social Sciences Interdisciplinary Seminar.
- Complete all other requirements for the Bachelor of Arts degree.

Courses to be taken under (1) or (2) above will be selected in consultation with the student's adviser and must consist of at least 32 upper division units in social sciences.

- B. A student may pursue a social sciences major and qualify (except for the necessary professional courses) for a single subject credential in the social sciences. This may be accomplished by the following:
 - Complete the General Education and all other college-wide requirements for the degree.
 - Complete the general prerequisite: One of the following research methods courses: HIST 3000, PSYC 2000, PSYC 2020, or SOCL 2030.
 - Complete the major of not less than 32 upper division units, as approved by the adviser, and distributed as follows:

		* *	er Division Minimum
a.	History or political science	4	courses
Ъ.	The other of the above fields	2	courses
c. d.	Anthropology, economics, geography, psychology, or sociology (one field) SSCI 4960, Social Sciences Inter-	2	courses
	disciplinary Seminar	1	course
e. ·	Electives within the School	1-2	courses
		10-11	courses
•		32 uni	its minimum

COURSE DESCRIPTION

SSCI 4960. Social Sciences Interdisciplinary Seminar (3)

Discussions and papers based on concepts, theories, information and techniques from several social science disciplines. Prerequisite: Completion of 7 upper division courses in the major.

Sociology

Donald W. Bowers, Ph.D., Associate Professor, Chairman
Harriet C. Stull, Ph.D., Professor
Antonio O. Donini, Ph.D., Associate Professor
Joseph A. Novack, Ph.D., Associate Professor
Frank J. Tripi, Ph.D., Associate Professor
Phillis T. Fox, Ph.D., Assistant Professor
George D. Muedeking, Ph.D., Assistant Professor
Michael H. Moynihan, M.A., Assistant Professor

The Department of Sociology offers the Bachelor of Arts, Sociology. The major is offered to those who desire a comprehensive and meaningful academic experience. By its nature, the study of sociology provides significant insights into the nature of human behavior and human societies. In contemporary society, problems of human relationships are not only the most crucial, but the most challenging.

For the interested student, the programs in sociology offer preparation for careers in the most exciting and challenging problems of the future. Students arrange programs which lead to careers in many areas of community, public, and social services, corrections and rehabilitation, teaching, industrial and organizational activities, research, and continued academic work for advanced degrees.

A concentration in the Administration of Justice is serviced by the Sociology Department. Complete information on that program is available in the Social Sciences section of this catalog.

The college also offers the degree of Bachelor of Arts, Social Sciences. Those interested in this degree select an interdepartmental major in sociology and any two areas within the social sciences. (For additional information, see Social Sciences.)

REQUIREMENTS FOR THE BACHELOR OF ARTS, SOCIOLOGY

Sociology majors are to:

- 1. Complete requirements for the Bachelor of Arts degree.
- Complete prerequisites to the major.
- 3. Complete the major of not less than 31 upper division units, of which no more than 8 units of Winter Term CR graded course work may apply toward the major. A grade of "C" or better must be received in all prerequisite courses; a "C" or better average must be maintained in the major.
- Completion of a minor is not required.

DEGREE MAJOR IN SOCIOLOGY

Lower Division Requirements

SOCL	1010.	Introduction to Sociology, 3	units
SOCL	2030.	Research Methods, 4 units	

Upper Division Requirements

Units

A minimum of 3	1 upper divi	sion unit	ts, in	cludir.	ıg			
Theory & Metho	dology (3000	, 3030,	3410,	4410,	4960)			15
Electives from	sociology					_	_	16

DEGREE MINOR IN SOCIOLOGY

Eighteen units approved by the adviser, including SOCL 1010, 2030, either 3000 or 3410, and 4 units of upper division electives.

TEACHING CREDENTIALS

Majors in sociology interested in elementary and secondary credentials are referred to the Education section of the catalog for a description of teaching credential programs.

LIBERAL STUDIES CONCENTRATION IN SOCIOLOGY

Liberal studies majors with a concentration in sociology must complete 20 units of sociology courses including 15 units of upper division courses; three of these courses must be selected from the following: SOCL 3010, Race & Ethnic Relations; SOCL 3160, Sociology of Youth; SOCL 3150, The Family; SOCL 4000, Sociology of Education; and SOCL 4800, Formal Organizations.

GRADUATE WORK IN SOCIOLOGY

The department works closely with the Department of Psychology in offering graduate courses which are included in the Master of Science in Psychology program. Those graduate students who select the Correctional Psychology concentration are offered 20 units of graduate work in the areas of crime and corrections.

COURSE DESCRIPTIONS

Lower Division

SOCL 1010. Introduction to Sociology (3)

Basic concepts and perspectives in sociological analysis. Prerequisite to other sociology courses.

SOCL 2030. Research Methods (4)

Introduction to research design and methodology in sociology:

Sociology

theory, implications of theoretical framework, hypothesis formation, conceptualization and measurement of sociological variables, research process, research designs, methods of data collection, sampling procedures, and written report. Prerequisite: SOCL 1010 or equivalent.

SOCL 2240. Social Problems (3)

Study of selected social problems.

SOCL 2950. Selected Topics in Sociology (Topics to be specified in Class Schedule) (1-5)

Development of a selected area of sociology. Topics vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

SOCL 2970. Selected Topics offered during Winter Term (4)

Upper Division

SOCL 3000. History of Sociology (2)

The emergence of sociology from social philosophy and the development of sociological thought.

SOCL 3010. Race and Ethnic Relations (3)

Sociological analysis of minority group relations; attention to specific racial, ethnic, and religious minorities. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3020. Criminal Justice Research (3)

Basic social science research methods applied to gathering data in criminal justice and criminological research. The focus will be on the special problems encountered in research settings and groups where information about crime is to be gathered and analyzed. Includes review of research in this area. Prerequisite: SOCL 2030.

SOCL 3030. Research Techniques & Analytic Procedures (4)

Social measurement, data analysis and interpretation, formulation of research designs, and application of research techniques. Includes understanding and performing basic research. Prerequisite: SOCL 2030.

SOCL 3150. The Family (3)

Social structure and changing functions of the modern family. Relationship of family to other social institutions. Family roles and interaction. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3160. Sociology of Youth (3)

Sociological analysis of the development of self and the socialization of the child and youth in sex and age roles. Prerequisite: SOCL 1010.

SOCL 3200. Social Change (3)

Sociology and social change, types and problems of change, factors in rate and direction of change, classic and modern theoretical analysis of social change. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3210. Urban Sociology (3)

The urban concept; origin and development of urban areas; effects of urbanization, social institutions, and social relations; research methods applied to urban life and form. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3250. Criminal Justice I (3)

A survey of basic institutions and processes of criminal justice in the United States. Prerequisite: Junior standing.

SOCL 3310. Social Stratification (3)

Origins, characteristics, and functions of social castes and classes; emphasis on recent research and theoretical developments. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3410. Modern Sociological Theory I (3)

Major contributions to systematic sociological theory: Critical analysis of selected works from Comte, Pareto, Weber, Durkheim, Mannheim, and other classical sociologists. Prerequisite: SOCL 3000 or consent of instructor.

SOCL 3420. Population and Demography (4)

World population and demographic theory and empirical studies from Malthus to the present, natality and mortality trends, basic sources of data and their research uses. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3610. Small Groups Seminar (3)

Structure and processes of small human groups, theory, research methods, and empirical findings. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 3720. Social Welfare Services (4)

Historical development of welfare services; analysis of the

Sociology

structure, policies, and issues of public and private welfare services. Field experience required. Prerequisite: SOCL 1010.

SOCL 4000. Sociology of Education (3)

The changing character of education in complex societies, its effect on individual and community behavior and development. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4030. Seminar in Research Design (4)

Theory construction and research application, development of research designs and application in the operating context of research projects. Prerequisite: SOCL 3030 or equivalent.

SOCL 4120. Sociology of Crime and Delinquency (3)

Theories of crime and delinquency; acquisition of criminal behavior patterns by individuals; distribution of crime among societal groups; description of crime patterns cross culturally. (Formerly 422 and 423) Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4130. Sociology of Correction (4)

Theories of punishment and treatment of criminals and juvenile delinquents. Effects of probation, parole, and prison behavior modification programs. Study of social systems within correctional facilities. (Formerly 421) Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4140. Sociology of Law (3)

Sociological analysis of legal principles and rules, law and culture, social organization, social change, administration of justice. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4150. Sociology of Probation & Parole (3)

The uses of probation, parole, and other non-institutional programs in correctional systems. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4240. Social Deviance (3)

Theories of deviant behavior and relevant research. Study of the processes by which deviance occurs and the reactions of society. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4250. Criminal Justice II (3)

Analysis of public policy issues in administration of criminal justice; ideology of crime control and criminal justice reform. Prerequisite: SOCL 3250.

SOCL 4320. Sociology of Religion (3)

Sociological analysis of religious belief, behavior, and organization; classical and current theory and research.

Prerequisite: Consent of instructor.

SOCL 4400: Political Sociology (3)

Sociological bases of political attitudes and behavior. Theory and research dealing with political socialization, voting behavior, legitimacy, and authority. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4410. Modern Sociological Theory II (3)

Major contributions to systematic sociological theory. Critical analysis of selected works from contemporary sociologists. Prerequisite: SOCL 3410.

SOCL 4510. Personality Culture & Social Structure (3)

Relations between personality, social structure, and culture. Primary emphasis on rules, socialization, aggression, affiliation, leadership, and norms. Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4600. Industrial Sociology (3)

Sociological analysis of industrial and other institutions of employment and work; work relations, labor unions, management policies, and industrialization as a world-wide phenomena.

Prerequisite: SOCL 1010 or consent of instructor.

SOCL 4800. Formal Organizations (3)

Analysis of modern bureaucratic organizations like hospitals, prisons, welfare, schools, etc. Examination of organizational effects on members, clients, and other organizations will be stressed. Prerequisite: Consent of instructor.

SOCL 4840. Community Organization and Process (3)

Critical examination of recent research and theory dealing with organization of and ongoing processes in existing communities. Lecture and field experience. Prerequisites: SOCL 1010, 2030, or consent of instructor.

SOCL 4900. Seminar in the Sociology of Sociology (3)

Sociological analysis of sociology, its relationships to other behavioral and social sciences; consideration of problems and techniques of teaching sociology. Recommended for future graduate students or teachers. (Formerly 494) Prerequisites: Senior standing and consent of instructor.

Sociology

SOCL 4940. Field Experience--Immersion Semester (6)

Supervised experience relevant to specific aspects of sociology. Intensive field placement in an appropriate agency or organization. Individual meetings, written reports. Prerequisite: Consent of instructor.

SOCL 4950. Selected Topics in Sociology (Topics to be specified in Class Schedule) (1-5)

Topics specified in class schedule. Topics vary each term, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

SOCL 4960. Senior Seminar (3)

Review and discussion of the contemporary issues facing sociology. Each student prepares an individual report. Prerequisite: Consent of instructor.

SOCL 4970. Selected Topics offered during Winter Term (4)

SOCL 4980. Individual Study (1-4)

For students capable of independent work at an advanced level. 'May be repeated up to 6 units. Prerequisite: Consent of instructor.

SOCL 5000. Seminar in Criminology (3)

Advanced study of crime causation and criminal classification; specialized group and individual treatment approaches. Prerequisite: Graduate standing.

Randall C. Ruechelle, Ph.D., Professor, Chairman
James R. McDearmon, Ph.D., Professor
Max C. Norton, Ph.D., Professor
James H. Platt, Ph.D., Professor
Richard S. Lucas, M.A., Associate Professor
William H. McFarland, Ph.D., Associate Professor
Jerry L. Weedon, Ph.D., Associate Professor
Susan E. Kellogg, M.S., Assistant Professor

The Department of Speech Communication offers the degrees of Bachelor of Arts and Master of Arts, Speech. Concentrations in Communication Disorders and Organizational Communication are available in addition to the general speech curriculum in the B.A. program. The M.A. program provides concentration in Communication Disorders. Overall objectives of the program are to provide the student with opportunities to fulfill the following academic and professional needs:

- To gain understanding of theories and processes of oral communication as a necessary part of one's education in the liberal arts.
- To gain specialized knowledge and proficiencies in the communicative arts and sciences for entrance into such professional programs as public school teaching, special education, clinical speech pathology and audiology; and such professions as the ministry, law or business and industry.

The School of Behavioral and Social Sciences offers the degree Bachelor of Arts, Social Sciences, with an interdepartmental major in speech and any other two disciplines within the social sciences. (For further information, see Social Sciences.)

The degree Bachelor of Arts, Liberal Studies, is also offered with speech as an area of concentration. (For further information, see Liberal Studies.)

REQUIREMENTS FOR THE BACHELOR OF ARTS, SPEECH

Speech majors are to:

- Complete the requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- Complete the major of not less than 30 upper division units; of these, no more than 10 units of CR graded course work may apply toward the major.
- 4. Completion of a minor is not required.

DEGREE MAJOR IN SPEECH

Prerequisite to the Major
SPCH 2010. Oral Communication Processes, 4 units One lower division course in speech as approved by major adviser, 3 units
The Major Units
SPCH 3000. Phonetics
REQUIREMENTS FOR THE BACHELOR OF ARTS IN SPEECH WITH A CONCENTRATION IN COMMUNICATION DISORDERS
CONCENTRATION IN COMPONICATION DISORDERS
 Complete requirements for the Bachelor of Arts degree. Complete prerequisites to the major. Complete the major of not less than 30 upper division units; of these, no more than 10 units of CR graded course work may apply toward the degree. Completion of a minor is not required.
DEGREE MAJOR IN SPEECH WITH A CONCENTRATION IN COMMUNICATION DISORDERS
Prerequisites to the concentration:
SPCH 2010. Oral Communication Processes, 4 units
One additional lower division course in speech as approved by major adviser.
The concentration: Units
SPCH 3000. Phonetics
or SPCH 4100. Group Communication

Additional minimum of 14 units selected on advisement from the following courses in Communication Disorders . 14

SPCH	3610.	Intro. to Communication Disorders, 3 units			
SPCH	3640.	Anatomy of Speech & Hearing Mechanisms, 3 units			
` SPCH	3700.	Proseminar in Clinical Observation, 1 unit			
SPCH	3810.	Theory & Practice of Hearing Measurement I, 4 units			
SPCH	3820.	Theory & Practice of Hearing Measurement II, 4 units			
SPCH	4600.	Proseminar in Diagnostic Methods in Communication Disorders, 3 units			
SPCH,	4610.	Proseminar in Communication Disorders I (Language & Symbolization Disabilities), 3 units			
SPCH	4620.	Proseminar in Communication Disorders II (Articulation), 3 units			
SPCH	4700.	Clinical Practice: Speech & Language Disorders, 1-2 units			
SPCH	4710.	Clinical Practice: Hearing Disorders, 1-2 units			
SPCH	, ⁴⁸¹⁰ .	Proseminar in Speech Reading & Aural Rehabilitation, 3 units			
		Total			
REQUIREMENTS FOR THE BACHELOR OF ARTS IN SPEECH WITH A CONCENTRATION IN ORGANIZATIONAL COMMUNICATION					
 Complete requirements for the Bachelor of Arts degree. Complete prerequisites to the major. Complete the major of not less than 30 upper division units; of these, no more than 10 units of CR graded course work may apply toward the degree. 					
4. Completion of a minor is not required. DEGREE MAJOR IN SPEECH					
WITH A CONCENTRATION IN ORGANIZATIONAL COMMUNICATION					
Prerequisites to the concentration:					
ECON 2500. Principles of Economics I, 4 units ENGL 2050. Technical & Report Writing, 3 units SOCL 2030. Research Methods, 4 units SPCH 2010. Oral Communication Processes, 4 units					
Additional recommended courses include:					

BUS 2060. Business Law, 3 units ECON 2510. Principles of Economics II, 4 units SPCH 2100. Discussion and Debate, 3 units

The	concentration: Un	its
	BUS 3010. Organization and Environment	4 4 3 3 4
	Additional minimum of 12 units selected on advisement from the following	2
	SPCH 4140. Rhetorical Theory, 3 units SPCH 4980. Individual Study, 1-4 units	-

DEGREE MINOR IN SPEECH

Eighteen units, to include at least 12 units in upper division.

Lower Division

SPCH 2000. Speech Communication, 3 units or SPCH 2010. Oral Communication Processes, 4 units One of the following as approved by minor adviser: SPCH 2100. Discussion and Debate, 3 units SPCH 2400. Oral Interpretation, 3 units

Upper Division

SPCH 3000. Phonetics, 3 units SPCH 3050. General Semantics, 3 units SPCH 3120. Rhetorical Communication, 3 units Three units as approved by minor adviser.

LIBERAL STUDIES CONCENTRATION IN SPEECH

Twenty units, to include at least 15 upper division units

Coı	e Requ	uirement	ts in Liberal Studies:	Units
	or		Speech Communication, 3 units 2010. Oral Communication Processes, 4 units Language & Speech Developments, 3 units	
Coi	ırses i	in the	Concentration:	
			courses selected from the following on	
				13-14
			Discussion and Debate, 3 units	
			Oral Interpretation, 3 units	
			r *3910. Speech Activities, 2 units	
1			Phonetics, 3 units	
			General Semantics, 3 units	
		3120.	•	
		3400.	Interpretation of Children's Literature,	
	ł		3 units	
		3410.	Interpretation of Literature, 3 units	
		4000.	Communication Theory, 4 units	
		4010.	Structural & Psycholinguistics, 5 units	
		4100.	Group Communication, 3 units	
		4120.	Theory of Persuasion, 3 units	
		4140.	Rhetorical Theory, 3 units	
	SPCH	4400.	Special Forms of Oral Interpretation,	
			4 units	
			Total	20

TEACHING CREDENTIALS

Students interested in multiple subject or single subject credentials are referred to the Education section of the catalog for a description of teaching credential programs.

COMMUNICATION HANDICAPPED: SPECIAL EDUCATION CREDENTIAL

Students planning careers as speech and hearing specialists should consult with the credential adviser in the Department of Speech Communication regarding program requirements for the credential. The program as administered by the Department of Speech Communication is coordinated with the Master of Arts program in Speech. Application to enter the Special Education Specialists Credential Program in Communication Handicapped Disorders should be made to the Secretary, Speech, Language and Hearing Center.

^{*}Cannot apply toward the concentration if used to satisfy Liberal Studies Area D requirements.

MASTER OF ARTS IN SPEECH

The Department of Speech Communication offers the Master of Arts degree in Speech with a concentration in Communication Disorder.

Prerequisites for admission to the graduate program:

- Completion of a bachelor's degree program from an accredited college or university.
- Superior performance in the undergraduate major (3.0 GPA). Exceptions to be granted only upon petition to the department.
- 3. A minimum of 30 undergraduate semester units in speech including core course requirements for completion of the B.A. degree with concentration in communication science and cognate fields, selected from the following: SPCH 3000, 3010, 3050, 3610, 3640, 3810, 3820, 4000, 4010, 4600, 4610, 4620, 4810, PSYC 3350, or their equivalent.

Continuation in the Program:

The student is formally admitted to the program after completion of one semester of course work and completion of the specific prerequisites listed above. Continuation in the program is based on the maintenance of the following academic standards:

- In accordance with college graduate policy, a 3.0 GPA must be maintained. Academic deficiency will result in disqualification from the program. Departmental review of candidate's eligibility is mandatory.
- Students are expected to maintain continuous registration. Exception will be granted only on petition to the department.

REQUIREMENTS FOR THE DEGREE

The Degree of Master of Arts in Speech with concentration in Communication Disorders is awarded after completion of requirements listed under one of two plans.

PLAN I

 Thirty semester units in graduate courses selected on advisement and to include research methodology (SPCH 5900) and thesis preparation (SPCH 5990). Graduate-level courses in speech within the 5000 series are applicable to the degree. Additional graduate-level courses in supportive fields (not to exceed 10 units) may be applicable upon advisement. These are to be completed within a seven-year period preceding the granting of the degree.

- 2. Satisfactory completion of an acceptable thesis.
- Oral examination on thesis conducted by the thesis committee.

PLAN II

- 1. Thirty semester units in graduate courses selected on advisement, to include the following:
 - Research Methods in Speech (SPCH 5900), 4 units
 - Six units of clinical internship featuring advanced clinical practicum in a selected setting such as a clinic, hospital or speech and hearing center (SPCH 5700 and/or SPCH 5710).
 - Selected Topics in Speech (SPCH 5950, 3 units). The course requirements include design, implementation and completion of a special research or instruction project under the direction of a faculty member. Each project will be reported in a paper of publishable quality.
- Satisfactory completion of a comprehensive written examination covering graduate course content and clinical methodologies.

SPEECH COMMUNICATION SUB-AREAS

BASIC SYSTEMS AND PROCESSES: LANGUAGE AND COMMUNICATION

- SPCH 2010. Oral Communication Processes, 4 units
- SPCH 3000. Phonetics, 3 units
- SPCH 3010. Language & Speech Development, 3 units SPCH 3050. General Semantics, 3 units
- SPCH 4000. Communication Theory, 4 units
- SPCH 4010. Structural & Psycholinguistics, 5 units
- SPCH 4950. Selected Topics in Speech, 1-5 units
- SPCH 4960. Introduction to Research Methods in Communication, 3 units
- SPCH 4980. Individual Study, 1-4 units

INTERPERSONAL COMMUNICATION

- SPCH 2000. Speech Communication, 3 units
- SPCH 2100. Discussion and Debate, 3 units
- SPCH 2910. Speech Activities, 2 units SPCH 2950. Selected Topics in Speech, 1-5 units
- SPCH 3120. Rhetorical Communication, 3 units
- SPCH 3910. Speech Activities, 2 units
- SPCH 3930. Intercollegiate Forensics, 1 unit
- SPCH 4100. Group Communication, 3 units
- SPCH 4120. Theory of Persuasion, 3 units
- SPCH 4140. Rhetorical Theory, 3 units

ORAL INTERPRETATION

- SPCH 2400. Oral Interpretation, 3 units
- SPCH 3400. Oral Interpretation of Children's Literature, 3 units
- SPCH 3410. Oral Interpretation of Literature, 3 units
- SPCH 4400. Special Forms of Oral Interpretation, 4 units

COMMUNICATION DISORDERS

- SPCH 3610. Introduction to Communication Disorders, 3 units
- SPCH 3640. Anatomy of Speech & Hearing Mechanisms, 3 units
- SPCH 3700. Proseminar in Clinical Observation, 1 unit
- SPCH 3810. Theory & Practice of Hearing Measurement I, 4 units
- SPCH 3820. Theory & Practice of Hearing Measurement II, 4 units
- SPCH 4600. Proseminar in Diagnostic Methods in Communication Disorders, 3 units
- SPCH 4610. Proseminar in Communication Disorders I (Language & Symbolization Disabilities), 3 units
- SPCH 4620. Proseminar in Communication Disorders II (Articulation), 3 units
- SPCH 4700. Clinical Practice: Speech & Language Disorders, 1-2 units
- SPCH 4710. Clinical Practice: Hearing Disorders, 1-2 units
- SPCH 4720. Developmental Assessment, 3 units
- SPCH 4810. Proseminar in Speech Reading and Aural Rehabilitation, 3 units

GRADUATE

- SPCH 5610. Seminar in Dysfluency, 5 units
- SPCH 5630. Seminar in Articulation Disorders, 5 units
- SPCH 5650. Seminar in Voice Disorders, 5 units
- SPCH 5660. Seminar in Disorders of Language Learning, 5 units
- SPCH 5710. Advanced Clinical Practice: Hearing Disorders, 1-2 units
- SPCH 5720. Internship in Clinical Supervision, 4 units
- SPCH 5730. Clinical Practice in Communication Disorders in Public Schools, 6 units
- SPCH 5800. Seminar: Audiological Research, 5 units
- SPCH 5810. Seminar in Education of the Hearing Impaired,
- SPCH 5900. Research Methods in Speech, 4 units
- SPCH 5950. Selected Topics in Speech, 1-5 units
- SPCH 5980. Individual Study, 1-4 units
- SPCH 5990. Thesis, 3-5 units

COURSE DESCRIPTIONS

Lower Division

SPCH 2000. Speech Communication (3)

Oral communication theory and practice in terms of the process, speaker, message, and audience. Emphasis on ethics, reasoning, evidence, listening, and criticism. Classroom activities include preparation, presentation, and criticism of speeches.

SPCH 2010. Oral Communication Processes (4)

Introduction to the field of human communication as developed in contemporary theory and research. Recurrent variables in verbal and non-verbal interaction are traced through the intrapersonal, interpersonal, and multipersonal systems. Required for speech communication majors.

SPCH 2100. Discussion and Debate (3)

Study of theory and practice of speech communication in discussion and debate contexts. Emphasis on gathering and presenting information, problem solving, and decision making in both contexts. (Formerly 210, 211)

SPCH 2400. Oral Interpretation (3)

Fundamentals of theory; techniques and practices in communicating from the printed page.

SPCH 2910. Speech Activities (2)

Project course for involvement of the student in a variety of speech and/or instructionally related activities. Options include such projects as intercollegiate speech activities, participation in community projects, or in-depth studies of instructional programs in such settings as public schools, child development centers, or other public agencies. May be repeated for a total of 8 units. (Formerly 292) Prerequisite: One lower division speech course or consent of instructor.

SPCH 2950. Selected Topics in Speech (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of speech. Topics may vary each term. Different topics may be taken for credit. Prerequisite: Consent of instructor.

SPCH 2970. Selected Topics during Winter Term (4)

Upper Division

SPCH 3000. Phonetics (3)

Analysis of general American speech with emphasis on synthesis in connected discourse. Practice and drill with international phonetic alphabet. Application of sciences of phonetics to fields of general linguistics, dialects, pronunciation in foreign languages, speech correction, and language arts.

SPCH 3010. Language and Speech Development (3)

Development of normal speech and language in children considered from neurological, psychological, and semantic standpoints; factors underlying normal speech and language development. (Formerly 360)

SPCH 3050. General Semantics (3)

Language and thought; practical analysis of verbal habits in human affairs. Emphasis on the formulations of general semantics, which deal with such communication problems as conflict, confusion, prejudice, accuracy, and precision in use of verbal symbols.

SPCH 3120. Rhetorical Communication (3)

Advanced study of the fundamental theory and practice of oral communication as applied to the multipersonal system. Attention is given to perception, feedback, formal and informal reasoning, message structure, and language variables for the purpose of developing strategies of clarification and attitude change.

Prerequisite: SPCH 2010.

SPCH 3400. Oral Interpretation of Children's Literature (3)

Application of principles of oral interpretation to children's literature. Types of children's literature with emphasis on criteria for selection of literature for oral interpretation, storytelling as well as reading. Prerequisite: SPCH 2400 or consent of instructor.

SPCH 3410. Oral Interpretation of Literature (3)

Application of principles of oral interpretation to literary modes and genres with a special emphasis on verse. Prerequisite: SPCH 2400 or consent of instructor.

SPCH 3610. Introduction to Communication Disorders (3)

Specific methods used by speech and hearing clinicians in dealing with problems of oral communication. Systems of therapy, their theoretical rationale, and evaluatory results of these

therapies. Organization and administering of speech and hearing programs, including clinical, private practice, hospital, and school programs. Specific applications of methods including direct contact with cases in clinical and school setting. Guided observations. Student is required to register for 1 unit of SPCH 3700. Prerequisite: Concurrent enrollment in SPCH 3000 or consent of instructor.

SPCH 3640. Anatomy of Speech and Hearing Mechanisms (3)

Anatomical and physiological characteristics of the normal speech and hearing mechanisms and their relationship to speech production.

SPCH 3700. Proseminar in Clinical Observation (1)

Clinical observation of diagnostic and therapeutic practice in on-campus, public school, and hospital settings. Twenty hours of direct observation is required for each unit of credit earned. Not applicable for clinical practice credit. Open to all students. May be repeated for a total of 3 units.

SPCH 3810. Theory and Practice of Hearing Measurement I (4)

Psychoacoustic theories and practice measurement of hearing emphasizing puretone audiometric techniques; evaluation of audiometric results; development and administration of hearing conservation programs. Prerequisite: SPCH 3640 or equivalent. Students are required to register concurrently in SPCH 4710 for 1 unit.

SPCH 3820. Theory and Practice of Hearing Measurement II (4)

Continuation of SPCH 3810. The history and use of speech audiometry and other special tests in audiological assessment. Prerequisite: SPCH 3640, 3810, or equivalent. Students are required to register concurrently in SPCH 4710 for 1 unit.

SPCH 3910. Speech Activities (2)

Project course for involvement of the student in a variety of speech and/or instructionally related activities. Options include such projects as intercollegiate speech activities, participation in community projects, or in-depth studies of instructional programs in such settings as public schools, child development centers, or other public agencies. (Formerly 392) Prerequisite: One lower division speech course or consent of instructor. May be repeated for a-total of 8 units.

SPCH 3930. Intercollegiate Forensics (1)

Participation in intercollegiate speech competition. Competition offered in debate, reader's theatre, oral interpretation, and

individual speaking events. A total of 10 units may be earned in any combination of SPCH 2910, 3910, and 3930. (Formerly 292, 392) Prerequisite: SPCH 2910, 3910, or consent of instructor. Concurrent enrollment in SPCH 2910 or 3910 recommended but not required.

SPCH 4000. Communication Theory (4)

Communication models; natural and formal language systems; contributions of theories of information, semantics, psycholinguistics, cybernetics, and general systems to the study of communication. Prerequisite: Senior standing or consent of instructor.

SPCH 4010. Structural and Psycholinguistics (5)

Analysis of structure of the language systems; construction of grammatical models based upon structural and transformational approaches to linguistic analysis. Survey of research in psycholinguistic theory including learning and transformational approaches to language behavior; information transmission, developmental transformations, bilingualism, and language change. (Formerly 467)

SPCH 4100. Group Communication (3)

Studies in small group theory and research. Participation in informal task groups devoted to such concepts as cooperation and competition, power, roles, status, and leadership as these relate to the variables of communication and productivity. Prerequisite: Senior standing or consent of instructor.

SPCH 4120. Theory of Persuasion (3)

Theory of argument: evidence, reasoning, and processes of motivation. Systematic evaluation of issues, the constituents of messages intended to influence group opinion and action. Prerequisite: Senior standing or consent of instructor.

SPCH 4140. Rhetorical Theory (3)

Rhetorical theory from classical to modern times. Influence of Aristotelian principles on development of rhetorical thought. Significant movements in development of rhetoric in France, Great Britain, and United States. Prerequisite: Senior standing or consent of instructor.

SPCH 4400. Special Forms of Oral Interpretation (4)

Special forms of oral interpretation including theatrical presentations of prose and verse literature. (Formerly 342) Prerequisite: SPCH 2400 or consent of instructor.

SPCH 4600. Proseminar in Diagnostic Methods in Communication Disorders (3)

Differential diagnosis of disorders of communication in children and adults. Practice in administering and interpreting tests of language, articulation, and related abilities. Instrumentation, examination techniques, interview methods, report writing, and referral procedures. Concurrent enrollment in SPCH 4700 for 1 unit. Prerequisites: SPCH 3000, 3010, 3610 and 3640.

SPCH 4610. Proseminar in Communication Disorders I (Language and Symbolization Disabilities) (3)

Aphasia in children and adults; delayed language not related to cerebral dysfunction; the language of the psychotic child; deprivation effects on language. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 4700 or 5700 for 1 unit is required.

SPCH 4620. Proseminar in Communication Disorders II (Articulation) (3)

Continuation of SPCH 4610. Disorders of articulation, voice and fluency, cerebral palsy, and oro-facial abnormalities including cleft palate. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 4700 or 5700 for 1 unit is required.

SPCH 4620. Proseminar in Communication Disorders II (Articulation) (3)

Continuation of SPCH 4610. Disorders of articulation, voice and fluency, cerebral palsy, and oro-facial abnormalities, including cleft palate. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 4700 or 5700 for 1 unit is required.

SPCH 4700. Clinical Practice: Speech and Language Disorders (1-2)

Supervised work with representative cases in articulation, stuttering, aphasia, voice disorders, delayed speech and language, cleft palate, cerebral palsy. Diagnostic and therapy assignments. May be repeated for a total of 6 units. One hour of staffing per week is required. Prerequisites: SPCH 3000, 3010, 3610, 3640.

SPCH 4710. Clinical Practice: Hearing Disorders (1-2)

Supervised work with representative cases in disorders of hearing. Administering of tests for assessment of specific pathologies of the hearing mechanism. Procedures for development of speech and language for children and adults with hearing disorders. Internship in both on-campus and off-campus settings: 20 clinical

contact hours required for each unit of credit earned. One hour of staffing per week is required. May be repeated for a total of 6 units. Prerequisite: SPCH 3810.

SPCH 4720. Developmental Assessment (3)

Procedures and techniques for assessing motoric, perceptual, social, and linguistic development of the child. Administration of developmental tests; assessment of potentially handicapping conditions.

SPCH 4810. Proseminar in Speech Reading and Aural Rehabilitation (3)

The study and analysis of various methods for developing communication skills in children and adults with impaired hearing. The principles and methods involved in the use of residual hearing in the hearing impaired. Students are required to register concurrently in SPCH 4710 for 1 unit. (Formerly 481, 482) Prerequisites: SPCH 3640 and 3810.

SPCH 4950. Selected Topics in Speech (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of oral communication. Topics may vary each term, thus different topics may be taken for credit. Prerequisites: Upper division standing and consent of instructor.

SPCH 4960. Introduction to Research Methods in Communication (3)

Synthesis of philosophies of oral communication represented by analysis of research. Prerequisites: Senior standing and consent of instructor.

SPCH 4970. Selected Topics offered during Winter Term (4)

SPCH 4980. Individual Study (1-4)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

Graduate

SPCH 5610. Seminar in Dysfluency (5)

Stuttering, cluttering, other disorders of fluency. Theory diagnosis, and treatment. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 5700 for 1 unit is required.

SPCH 5630. Seminar in Articulation Disorders (5)

Articulation disorders of functional, structural, and neurological etiology; dysarthria and apraxia; cleft palate articulation, theory, diagnosis, and treatment. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 5700 for 1 unit is required.

SPCH 5650. Seminar in Voice Disorders (5)

Voice disorders of functional, structural, and neurological etiology; cleft palate voice. Theory, diagnosis, and treatment. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 5700 for 1 unit is required.

SPCH 5660. Seminar in Disorders of Language Learning (5)

Studies of the nature, diagnosis, and treatment of language and language learning disabilities. Development disorders of language; aphasia in children and adults; autistic and schizophrenic language; language of the mentally handicapped. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 5700 for 1 unit is required.

SPCH 5700. Advanced Clinical Practice: Speech and Language Disorders (1-2)

Supervised work with representative advanced cases in stuttering, aphasia, and voice disorders. Twenty contact hours are required for each unit of credit earned. May be repeated for a total of 6 units. One hour of staffing per week is required. Prerequisite: Consent of instructor.

SPCH 5710. Advanced Clinical Practice: Hearing Disorders (1-2)

Supervised work with representative cases of hearing disorders. Includes auditory training, lipreading, language development for the hard of hearing. Twenty contact hours required for each unit earned. May be repeated for a total of 6 units. One hour staffing per week is required. Prerequisite: Consent of instructor.

SPCH 5720. Internship in Clinical Supervision (4)

Practicum in supervision of undergraduate students enrolled in clinical practicum. Each student will supervise four beginning undergraduate students. A weekly seminar will be held to discuss problems in clinical supervision.

SPCH 5730. Clinical Practice in Communication Disorders in Public Schools (6)

Supervised screening, identification of communication disorders in school setting, record keeping, supervised therapy of

communication disorders in public school setting. Twenty contact hours required for each unit of credit earned. (Formerly 641, 642) Prerequisites: Acceptance in credential program in speech, completion of or concurrent enrollment in SPCH 4700, 4710, 5700, 5710.

SPCH 5800. Seminar: Audiological Research (5)

Research findings in measurement of hearing loss; diagnosis of hearing disorders; theory and practice of hearing aid design and fitting. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 5710 for 1 unit is required.

SPCH 5810. Seminar in Education of the Hearing Impaired (5)

Acoustic, psychological, educational, and linguistic procedures in rehabilitation of hearing impaired children and adults; examination of current research. (Formerly 564) Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 5710 for l unit is required.

SPCH 5900. Research Methods in Speech (4)

The purpose and methods of research in the field of speech; trends and developments with emphasis upon the development of methods of studying existing problems and discovering new ones in the field of speech. Prerequisite: Consent of instructor.

SPCH 5950. Selected Topics in Speech (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch of oral communication. Topics may vary each term, thus different topics may be taken for credit. Prerequisite: Graduate standing.

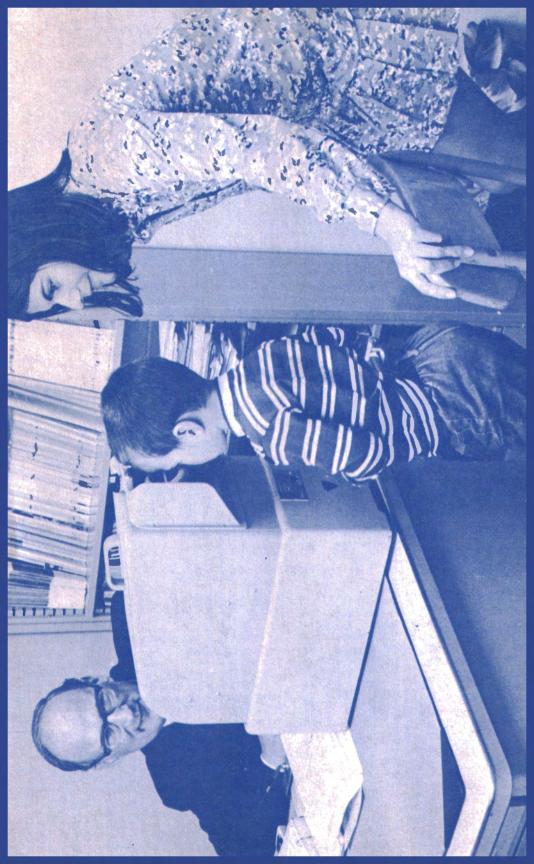
SPCH 5970. Selected Topics offered during Winter Term (4)

SPCH 5980. Individual Study (1-4)

For qualified postbaccalaureate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

SPCH 5990. Thesis Research (3-6)

Thesis research. Prerequisite: Satisfactory completion of SPCH 5900 or its equivalent, and special permission.



Technology and Change

A Degree Minor

John P. Rasmussen, Ph.D., Director

Technology and Change is a multidisciplinary degree minor especially designed for the non-science student. The program is concerned with the social impact of science and technology on the world today and the world of the future. This minor will be useful to the student planning a career in education or administration as well as to all those seeking a broad understanding of the implications of technological and social change.

DEGREE MINOR IN TECHNOLOGY AND CHANGE

. Eighteen units, of which at least 10 must be upper division.

Required courses:

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MDIS 3500. The Technological Society, 3 units
MDIS 4960. Seminar in Technology and Society, 3 units
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Elective courses:

In consultation with and upon approval of the minor adviser, the student is to select at least 12 units of supporting courses which contribute to his or her ability to understand the cultural implications of science and technology. At least 2 of these courses are to be selected from the Natural Sciences.

Courses useful in fulfilling elective requirements include, but are not limited to, the following:

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ASTR 2100. Descriptive Astronomy, 3 units
BIOL 2650. Environmental Biology, 2 units
MATH 1200. Computers and Society, 3 units
ANTH 4200. Applied Anthropology and Social Change, 4 units
ENGL 3550. Science Fiction, 3 units
GEOG 3020. Human Ecology, 3 units
HIST 3640. Contemporary America, 3 units
SOCL 3200. Social Change, 3 units
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Up to 6 units of the required 12 units of supporting course work in the minor may be taken by means of courses numbered 4980, Individual Study. Such course work must clearly focus on the topic of technology and change and must be approved by the minor adviser. Where appropriate, Winter Term courses are also applicable.

COURSE DESCRIPTIONS

MDIS 3500. The Technological Society (3)

An'interdisciplinary analysis of the social and ecological crises caused by the exponential growth of science and technology. The issues--population, energy, alienation, pollution, etc.--are examined on the global, national, and local levels.

MDIS 4960. Seminar in Technology and Society (3)

, Reading, papers, and discussion on the societal, ecological, and philosophical issues raised by contemporary science and technology. Prerequisite: MDIS 3500 or consent of instructor.

Urban and Community Studies

A Concentration Within the Social Sciences Major

Melvin H. Aamodt, Ph.D., Director

The interdisciplinary Urban and Community Studies Concentration is designed as an undergraduate course of study for students who wish to investigate the major problems which result from the growing complexity of our urban environment. Environmental, behavioral, and administrative aspects of urban areas are considered as well as techniques useful in studying urban problems.

Students who pursue this program obtain background leading towards positions in a variety of governmental or voluntary agencies as well as preparation for possible graduate training in such professional programs as public administration, urban or regional planning, social welfare, etc.

Internships in Governmental Agencies. There is an Intern Program in the Department of Political Science. Students in the Urban and Community Studies concentration who wish to be considered for participation in that program should contact the director in the Political Science Department concerning requirements for admission.

REQUIREMENTS FOR BACHELOR OF ARTS, SOCIAL SCIENCE, WITH A CONCENTRATION IN URBAN AND COMMUNITY STUDIES

- Complete the requirements for the Bachelor of Arts degree.
- 2. Complete prerequisites to the major.
- Complete the major of not less than 32 upper division units as outlined below and approved by the adviser. No more than 8 units of Winter Term CR graded course work may apply toward the degree.
- Completion of a minor is not required.

Prerequisites:

- SOCL 1010. Introduction to Sociology, 3 units
- 2.
- PSCI 1200. American Government, 3 units ECON 2500. Principles of Economics I, 4 units
- Complete one of the following research methods courses: MATH 2000. Introduction to Computers, 3 units
 - SOCL 2030. Research Methods, 4 units
 - PSCI 3100. Scope & Methods of Political Science, 4 units

Recommended courses:

MATH 1600. Statistics, 4 units

SOCL 3030. Research Techniques & Analytic Procedures,

4 units

GEOG 3700. Cartographic Presentation, 3 units

COURSES IN THE MAJOR

1. URBAN ENVIRONMENT

Three courses dealing with the cultural, economic, spatial, and physical aspects of the urban environment:

ECON 4600. Urban Economics, 3 units

GEOG 4350. Urban Geography, 4 units

HIST 3640. Contemporary America, 3 units

URBAN BEHAVIOR

Two courses concerned with urban behavior:

SOCL 3210. Urban Sociology, 3 units

SOCL 4840. Community Organization & Process, 3 units

URBAN ADMINISTRATION AND POLITICS

Two courses in the areas of urban administration and politics:

PSCI 3300. Introduction to Public Administration, 3 units

PSCI 4330. Urban Politics, 4 units

4. INTERDISCIPLINARY SEMINAR

As arranged in consultation with an adviser, complete 3 units of:

SSCI 4960. Social Sciences Interdisciplinary Seminar, 3 units

5. Completion of the remainder of the required 32 units from the list below. Additional work beyond the minimum requirements for the concentration is highly recommended.

ECON 4540. Public Finance & Fiscal Policy, 3 units

ECON 4550. Taxation & the American Economy, 3 units

GEOG 3510. Geography of North America, 4 units

GEOG 3700. Cartographic Presentation, 3 units

GEOG 4300. Geography of Resource Planning, 3 units

HIST 4680. American Intellectual & Social History, 3 units

PSCI 3230. Political Parties and Interest Groups, 4 units

PSCI 3260. Urban Justice, 3 units

PSCI 3330. California Politics, 3 units

PSCI 4300. Organization Theory, 4 units

PSCI 4320. Minority Politics, 3 units

Urban and Community Studies

1	*PSCI	4340.	Public Administration Internship, 3 units
	SOCL	3030.	Research Techniques and Analytic Procedures,
			4 units
	SQCL	3150.	The Family, 3 units
	SOCL	3200.	Social Change, 3 units
	SOCL	3310.	Social Stratification, 3 units
	SOCL	3420.	Population and Demography, 4 units
	SOCL	3720.	Social Welfare Services, 4 units

^{*}This course is available only to students who have been admitted to the Internship Program of the Political Science Department.

The General Faculty

GATLIN, Carl, 1969

President; Professor of Applied Sciences

B.S. 1950, University of Southern California; M.S. 1955,

University of Tulsa; Ph.D. 1959, Pennsylvania State University

AAMODT, Melvin H., 1970

Professor of Anthropology and Geography

B.A. 1958, Brigham Young University; M.A. 1960, University of Wisconsin; Ph.D. 1968, Indiana University

AHANOTU, Austin Metumara, 1970

Associate Professor of History

B.A. 1967, Berea College; M.A. 1968, Ph.D. 1971, University of California, Los Angeles

ALMY, John, 1971

Associate Professor of Chemistry

B.A. 1964, Johns Hopkins University; Ph.D. 1969, University of California, Los Angeles

ANDERSON, Robert K., 1971

Assistant Professor of Spanish

B.A. 1966, Brigham Young University; Ph.D. 1973, Saint Louis University

ARMSTRONG, Corinne P., 1972

Assistant Professor of Anthropology

B.A. 1964, M.A., 1965, University of California, Los Angeles

AUBERT, Edward J., 1961

Director of Admissions and Relations with Schools B.S. 1956, University of San Francisco; M.B.A. 1961,

University of California, Berkeley

BALBO, Frank C., 1964

Business Manager

B.S. 1937, University of California, Berkeley

BARRETT, Thomas P., 1961

Professor of Business Administration

B.A. 1954, Northeastern University; M.A. 1958, Michigan State University

BEAMISH, Jerome J., 1964

Director of Testing

B.A. 1957, Sir George Williams University; M.A. 1958, Ph.D. 1962, Columbia University

Faculty

BENNETT, Agnes L., 1961 Head Catalog Librarian A.B. 1951, Luther College; A.M.L.S. 1952, University of Michigan

BERKOBEN, Lawrence D., 1963
Professor of English
B.A. 1957, Pennsylvania State University; M.A. 1958, Ohio
University; Ph.D. 1963, University of Washington

BOBLITT, William E., 1973
Visiting Lecturer in Psychology
B.A. 1962, University of Denver; M.A. 1965, Ph.D. 1967,
University of Florida

BOWEN, James C., 1970
Associate Professor of Physical Education
B.A. 1965, University of Northern Iowa; M.A. 1969, Ph.D. 1973,
University of Iowa

BOWERS, Donald W., 1971
Associate Professor of Sociology
B.A. 1967, M.A. 1969, Ph.D. 1973, University of Utah

BOWERS, Ida I., 1972
Assistant Professor of Geography
B.S. 1961, Central Michigan University; M.A. 1965, Ph.D. 1973,
University of Hawaii

BREWER, Joseph E., 1967
Professor of English
B.A. 1947, University of Akron; M.A. 1948, University of Cincinnati; Ph.D. 1954, Case Western Reserve University

BROWN, Judith A., 1969
Assistant Professor of Biological Sciences
B.A. 1966, Whittier College; M.S. 1969, Ph.D. 1973,
Northwestern University

BRUGGMAN, Joseph E., 1960
Professor of Music
B.A. 1941, San Jose State University; M.A. 1947, Ed.D. 1949,
Columbia University

BYRD, James E., 1974
Assistant Professor of Chemistry
B.S. 1966, Roosevelt University, Chicago; Ph.D. 1971,
University of Chicago

CAMARATA, Martin L., 1964
Professor of Art
B.S. 1956, State University of New York at Buffalo;
M.A. 1957, New York University

CANBY, Joel, 1970

Professor of Anthropology

B.A. 1941, Colorado College; A.M. 1948, Ph.D. 1950, Harvard University

CARROLL, John E., 1971

Assistant Professor of English

B.A. 1965, M.A. 1967, Ph.D. 1970, University of New Mexico

CARSON, Carol P., 1972

Assistant Professor of Anthropology

B.A. 1966, University of California, Davis; M.A. 1969, University of California, Berkeley

*CASWELL, John E., 1960

Professor of History

B.A. 1934, M.A. 1937, University of Oregon; Ph.D. 1952, Stanford University

CHANG, Shang-Wang, 1969

Associate Professor of Mathematics

B.E. (Engineering) 1947, Tohuku University, Japan;

M.S. 1961, Kansas State Teachers College; Ph.D. 1969, Iowa State University

CHAPIN, Wayne R., 1970

Professor of Business Administration

B.B.A. 1958, M.B.A. 1959, University of Texas at Austin;

D.B.A. 1965, University of Southern California; C.P.A. 1958, State of Texas

CHOW, Tai-Low, 1969

Associate Professor of Physics

B.S. 1958, National Taiwan University; M.S. 1963, Case Western Reserve University; Ph.D. 1970, University of Rochester

CHRISTOFFERSON, Jay P., 1970

Associate Professor of Biological Sciences

B.S. 1961, University of Utah; M.S. 1965, Ph.D. 1970, University of Hawaii

COLE, James C., 1964

Professor of Education

A.B. 1947, M.A. 1948, Stanford University; Ed.D. 1956, Teachers College Columbia University

CONANT, Richard D., 1969

Associate Professor of Physical Education

A.B. 1955, Occidental College; M.S. 1956, University of California, Los Angeles; Ph.D. 1969, University of Oregon

^{*}Sabbatical Leave, Spring 1976

Faculty

CORBIN, Joseph W., 1968
Associate Vice President for Academic Services
Professor of Education
B.S. 1960, Geneva College; M.Ed. 1961, University of
Pittsburgh; Ed.D. 1967, University of the Pacific

COULTER, R. Scott, Jr., 1970
Associate Professor of Music
B.M. 1949, M.M. 1952, University of the Pacific

CRAWFORD, Paula J., 1973
Reference Librarian
B.A. 1972, University of the Pacific; M.S.L.S. 1973,
University of Southern California

CREDELL, Edward R., 1967
Professor of Education
A.B. 1949, California State University, Fresno; M.S. 1956,
M.Ed. 1960, University of Southern California; Ph.D. 1967,
Northwestern University

CRIST, William D., 1969
Associate Professor of Economics
B.S. 1960, M.A. 1962, Ph.D. 1972, University of Nebraska

CROWLEY, Gerard J., 1960
Executive Dean
Professor of Management
A.B. 1942, Loyola College; Ed.M. 1951, Boston University

D'AMATO, Leonard P., 1971
Assistant Professor of Mathematics
B.E.S. 1966, Ph.D. 1971, State University of New York at
Stony Brook

DEAN, Britten, 1967
Associate Professor of History
A.B. 1957, Brown University; M.A. 1962, Ph.D. 1969,
Columbia University

deTADLOCK, Gisela D., 1973
Assistant Professor of Spanish
B.A. 1967, San Francisco College for Women

DINSE, Noble T., 1970
Associate Professor of Drama
B.S. 1968, M.A.T. 1970, Portland State University

DONINI, Antonio, 1966
Associate Professor of Sociology
A.B. 1941, Institute of Classical Literature and Humanities;
M.A. 1945, Saint Michael College, Buenos Aires, Argentina;
M.S.Sc. 1957, Ph.D. 1960, Institute of Social Sciences,
Gregorian University, Rome, Italy

DURBIN, Thomas E., 1970

Associate Professor of Anthropology

B.A. 1964, University of California, Berkeley; M.A. 1966,

Ph.D. 1970, University of California, Los Angeles

DYCHE, Chester W., 1970

Academic Coordinator of Computer Usage

Associate Professor of Mathematics

B.A. 1952, Linfield College; M.A. 1956, Oregon State University

EDMONDSON, James H., 1971

Assistant Director of Student Services

B.S. 1969, M.A. 1971, California Polytechnic State University, San Luis Obispo

ELLIOTT, Lee A., 1972

Associate Professor of Psychology

B.A. 1959, Quincy College; M.Ed. 1967, Xavier University;

Ph.D. 1970, University of Cincinnati

ENTIN, Kenneth, 1971

Associate Professor of Political Science

B.A. 1966, City College of New York; M.A. 1967, Ph.D. 1971,

New York University

ERICKSON, Edward C., 1970

Assistant Professor of Economics

B.A. 1965, M.A. 1966, University of California, Riverside;

Ph.D. 1970, University of Southern California

FARNSWORTH, Richard B., 1967

Director of Continuing Education

B.A. 1935, University of Montana; M.A. 1943, Stanford

University

FARRAR, Charles R., 1960

Professor of Education

B.A. 1949, M.A. 1950, Humboldt State University;

Ed.D. 1963, Stanford University

FELDMAN, Louis A., 1968

Associate Professor of Mathematics

B.S. 1963, University of Michigan; M.A. 1965, Ph.D. 1969,

University of California, Berkeley

FOX, Phillis T., 1974

Assistant Professor of Sociology

B.A. 1966, University of Chicago; M.A. 1969, Ph.D. 1974,

Northwestern University

FULLER, Michael C., 1971

Assistant Professor of French

B.A. 1964, University of Idaho; M.A. 1966, Ph.D. 1971,

University of Washington

Faculty

GALLOWAY, R. Dean, 1960
Director of the Library
A.B. 1947, Humboldt State University; M.S. 1950, University
of Southern California

GENTRY, Thomas A., 1973
Assistant Professor of Psychology
B.A. 1957, M.A. 1958, Colorado College; Ph.D. 1973, Brandeis University

GHIGLIERI, Sylvia M., 1961
Associate Professor of Music
B.M. 1954, Dominican College; Diploma 1954, Music Academy
of the West at Santa Barbara; Diploma 1955, Conservatoire
de la Musique at Fontainebleau, France; M.M. 1960, University
of the Pacific

GOLDSMITH, W. Mack, 1966
Professor of Psychology
A.B. 1957, Ripon College; Ph.D. 1966, Cornell University

GOODWIN, James M., 1968
Associate Professor of Physics
B.S. 1958, Pennsylvania State University; M.S. 1964, Ph.D. 1968, University of Washington

GORA, William A., 1973
Assistant Professor of Music
B.M. 1969, University of Miami; M.Ed. 1971, University of Florida

GOTELLI, David M., 1970
Associate Professor of Biological Sciences
B.A. 1964, University of California, Berkeley; Ph.D. 1969,
University of Washington

GRANT, Curtis R., 1966
Vice President for Academic Affairs
Associate Professor of History
A.B. 1960, Stanford University; M.A. 1961, University of
California, Berkeley; Ph.D. 1968, Stanford University

GRAVES, Jack A., 1969
Associate Professor of Education
B.A. 1953, Arizona State University; M.A. 1961, Ed.D. 1968,
University of California, Berkeley

*GRILLOS, Steve J., 1965
Professor of Botany
B.S. 1951, University of Denver; M.S. 1952, University of
Wyoming; Ph.D. 1956, Oregon State University

^{*}Sabbatical Leave Fall 1975

HABASHI, Zaki I., 1965

Professor of Physical Education

B.S. 1944, Higher Institute of Physical Education, Cairo, U.A.R.; M.A. 1957, University of Wyoming; L.L.B. 1962, University of Alexandria, U.A.R.; Ed.D. 1961, University of Colorado

HACKWELL, Glenn A., 1961

Professor of Biological Sciences

B.S. 1957, M.S. 1958, Brigham Young University; Ph.D. 1967, Oregon State University; Registered Professional Entomologist, 1972, Entomological Society of America

HAMILTON, Hobart G., Jr., 1968

Associate Vice President for Academic Affairs

Associate Professor of Chemistry

B.S. 1961, University of Texas, El Paso; M.S. 1963, Ph.D. 1967, New Mexico State University

HANNY, James K., 1966

Associate Professor of Physical Education B.A. 1949, M.A. 1957, University of the Pacific; Ed.D. 1972, Laurence University

HANSON, James C., 1960

Professor of Biological Sciences

B.A. 1955, M.A. 1957, University of the Pacific; Ph.D. 1967, Oregon State University

HARDER, Paul O., 1973

Dean, School of Arts and Humanities

Professor of Music.

B.M. 1944, Butler University; M.M. 1945, Eastman School of Music; Ph.D. 1959, University of Iowa

HAYES, William H., 1971

Professor of Philosophy

B.A. 1947, Columbia College, Columbia University; M.A. 1952, Ph.D. 1967, University of California, Berkeley

HESS, John M., 1973

Associate Professor of Political Science

A.B. 1953, M.A. 1958, University of California, Berkeley

HINKSON, Jimmy W., 1970

Associate Professor of Chemistry

B.S. 1956, M.S. 1958, Brigham Young University; Ph.D. 1962, Indiana University

HOLDER, Franklin B., 1965

Professor of History

B.A. 1949, M.A. 1951, Ph.D. 1962, University of California Berkeley

HOLT, Lewis E., 1971
Associate Professor of Psychology
B.A. 1960, M.A. 1967, Ph.D. 1969, University of California,
Berkeley

HOOD, Bruce D., 1966
Associate Professor of Drama
B.F.A. 1959, University of New Mexico; M.A. 1966, San Francisco
State University

HUGHES, Steven W., 1971
Assistant Professor of Political Science
B.A. 1966, Whittier College; Ph.D. 1971, University of
North Carolina

JAMES, Ralph L., 1970
Associate Professor of Mathematics
B.S. 1963, University of Washington; M.S. 1965, Ph.D. 1970,
Oregon State University

JAVAHER, James N., 1961
Professor of Mathematics
L.L.B. 1946, University of Tehran; A.B. 1950, San Jose State
University; M.A. 1952, University of California, Berkeley;
B.S. 1954, Stanford University; Doctorat d'Université, Faculte
des Sciences, 1960, University of Paris, Sorbonne

JENKINS, David O., 1970
Professor of Business Administration
B.B.A. 1952, Loyola University of Los Angeles; M.A. 1955, The
Catholic University of America; C.P.A. 1958, State of
California; D.B.A. 1963, University of Southern California

JENSEN, James P., 1961
Professor of English
B.A. 1953, M.A. 1957, Ph.D. 1964, University of Washington

JOHNSON, Lola V., 1960
Associate Professor of English
B.A. 1956, M.A. 1959, University of the Pacific

JONES, Richard V., 1966
Professor of Education
B.A. 1956, M.A. 1956, Stanford University; Ed.D. 1966,
University of California, Berkeley

KELLOGG, Susan E., 1969
Assistant Professor of Speech Pathology and Audiology
B.S. 1964, Syracuse University; M.S. 1965, University of
Wisconsin, Madison

KOTTKE, Frederick E., 1963

Professor of Economics

B.S. 1952, Pepperdine College; M.A. 1957, Ph.D. 1960, University of Southern California

LAMBRIGHT, Robert W., 1968

Professor of Marketing

B.A. 1952, M.B.A. 1954, D.B.A. 1966, University of Washington at Seattle

LEE, Yin-Po, 1970

Associate Professor of Economics

B.A. 1955, National Taiwan University; Ph.D. 1970, Southern Illinois University

LEO, Louis J., 1969

Dean for Administration

B.A. 1966, University of Michigan; J.D. 1969, University of Michigan Law School

LEVERING, Richard A., 1973

Assistant Professor of Drama

A.B. 1961, M.A. 1968, California State University, Long Beach

EODEWYCK, Ronald W., 1973

Associate Professor of Business Administration

B.S. 1965, Illinois Institute of Technology; M.S. 1966,

Ph.D. 1973, Northwestern University

LUCAS, Richard S., 1969

Associate Professor of Speech

B.A. 1966, M.A. 1968, California State University, Sacramento

LUEVANO, Richard L., 1972

Assistant Professor of Ethnic Studies

B.A. 1970, California State College, Stanislaus; M.A. 1971, San Jose State University

MACK, Gerhard G., 1970

Associate Professor of German

A.B. 1965, California State University, Los Angeles; M.A. 1967, Ph.D. 1971, University of Southern California

MAGNELIA, Paul F., 1966

Professor of Political Science

B.A. 1955, Washington University; M.A. 1960, University of The Americas; Ph.D. 1967, University of Geneva

MARIA, Narendra L., 1968

Professor of Mathematics

B.A. 1948, M.A. 1949, Punjab University, India; Ph.D. 1968, University of California, Berkeley

*MAYOL, Perpetuo S., 1968

Associate Professor of Biological Sciences B.S.A. 1957; University of the Philippines; M.S. 1965, Oklahoma State University; Ph.D. 1968, Purdue University

McCLINTOCK, William F., 1963

Credentials Coordinator and Director of Academic Advising Professor of Education A.B. 1937, Occidental College; M.A. 1949, Ph.D. 1957, Claremont Graduate School

McDEARMON, James R., 1970

Professor of Speech Pathology B.A. 1940, University of California, Berkeley; M.A. 1950, University of the Pacific; Ph.D. 1960, University of Denver

McDERMOTT, Douglas W., 1970

Professor of Drama

A.B. 1958, Pomona College; M.A. 1960, University of North Carolina; Ph.D. 1963, University of Iowa

McFARLAND, William H., 1974

Associate Professor of Audiology

B.A. 1965, M.A. 1966, San Francisco State University; Ph.D. 1969, University of Washington

MENDES, Richard G., 1970

Associate Professor of Political Science B.A. 1966, Wabash College; M.A. 1967, Ph.D. 1971, Michigan State University

MOLLEMA, Peter C., Jr., 1975

Head of Technical Services

B.A. 1959, Carleton College; M.A. 1965, University of New Hampshire; M.A.L.S. 1965, University of Wisconsin, Madison

MORGAN-PAAP, Cynthia L., 1974

Visiting Lecturer in Psychology

A.B. 1968, Temple University; M.A. 1971, Ph.D. 1974, University of Wisconsin, Madison

MORICONI, R. J., 1968

Associate Professor of Education A.B. 1955, M.A. 1957, Stanford University; Ed.D. 1967, University of Florida

MORRIS, William M., 1971

Associate Professor of Physical Education A.B. 1962, M.A. 1964, California State University, Chico; Ed.D. 1969, University of Utah

^{*}Sabbatical Leave Spring 1976

MOYNIHAN, Michael H., 1974

Assistant Professor of Sociology

B.A. 1966, M.A. 1969, University of Colorado at Boulder

MUEDEKING, George D., 1972

Assistant Professor of Sociology

B.A. 1965, Pacific Lutheran University; M.A. 1968, Ph.D. 1972, Washington State University

NAPTON, Lewis K., 1971

Professor of Anthropology

B.S. 1959, Montana State University; M.A. 1965, University of Montana; Ph.D. 1970, University of California, Berkeley

NELSON, Wayne E., 1970

Associate Professor of Physical Education

B.S. 1951, M.S. 1957, University of Wisconsin; Ed.D. 1970, University of New Mexico

NICKERSON, Melvin R., 1966

Coordinator of Audio Visual Services

A.B. 1956, A.M. 1960, University of the Pacific; Ph.D. 1966, University of Michigan

*NORTON, Max C., 1961

Professor of Speech

B.A. 1951, M.A. 1955, University of the Pacific; Ph.D. 1962, University of Denver

NOVACK, Joseph A., 1971

Associate Professor of Sociology

B.S. 1964, Wisconsin State University; M.A. 1969, Ph.D. 1971, Louisiana State University

NOVAK, Gary D., 1973

Assistant Professor of Psychology

A.B. 1968, Rutgers University; M.A. 1970, Temple University; Ph.D. 1974, State University of New York at Stony Brook

O'DELL, Jerry C., 1973

Assistant Professor of English

B.A. 1964, Centenary College; A.M. 1966, Ph.D. 1972, Stanford University

OPPENHEIM, Samuel A., 1971

Associate Professor of History

B.A. 1962, University of Arizona; A.M. 1964, Harvard University; Ph.D. 1972, Indiana University

PANDELL, Alexander J., 1970

Associate Professor of Chemistry

B.S. 1964, San Francisco State University; Ph.D. 1968, Stanford University

^{*}Sabbatical Leave Spring 1976

PARKER, J. Carlyle, 1963

Assistant Director of the Library

Head of Public Services

A.B. 1957, Brigham Young University; M.L.S. 1958, University of California, Berkeley

PARTON, Ralf, 1963

Professor of Art

Diploma 1953, Albright Art School; B.S. 1954, State University of New York at Buffalo; M.A. 1955, Columbia University

PATTERSON, Richard G., 1972

Director of Educational Opportunity Program

B.S. 1971, University of Nevada, Reno

PERONA, Michael J., 1973

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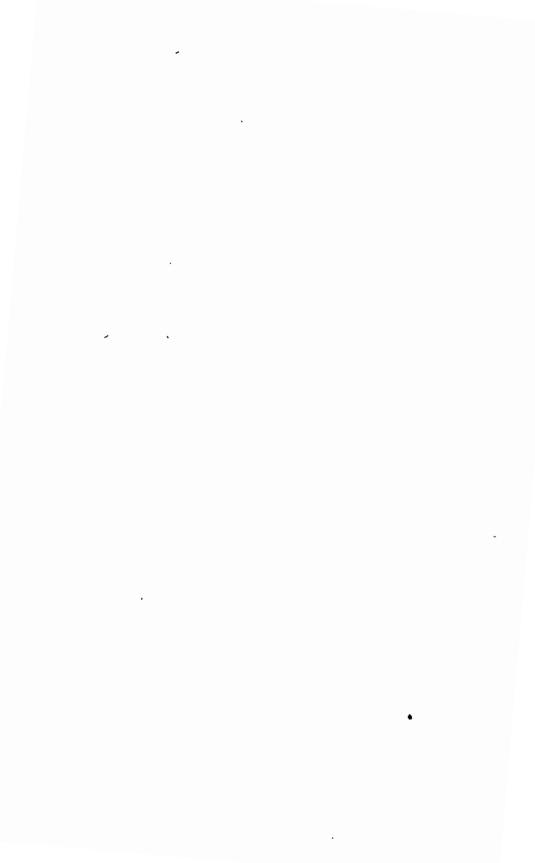
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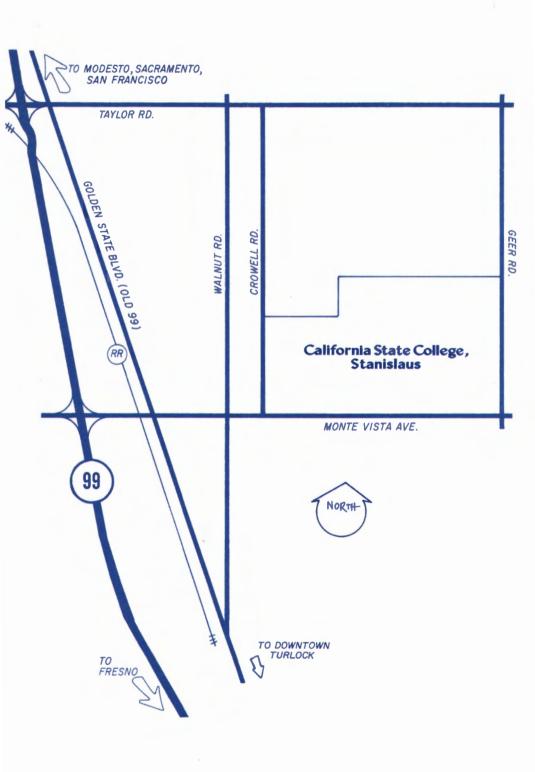
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