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In the Fall of 1974, California State College, Stanislaus wịll begin the second year of its new "4-1-4" academic calendar. Response to the program in its inaugural year has been enthusiastic, especially to the wide variety of innovative courses offered in Winter Term 1974. Plans for the coming year promise an even more attractive program for 1974-75.

Under 4-1-4, the academic year consists of two 13-week semesters and a month-long Winter Term beginning in January. Fall Senester ends before Christmas break and Spring Semester finishes in early June. 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 offcampus 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 venture possible at Cal State, Stanislaus.

SUMMER SESSIONS 1974


FALL SEMESTER 1974

| November 1-30, 1973, Thursday |
| :---: |
| through Friday . . . . . . Initial period for accepting |
| admission applications for Fall |

December 3, 1973, Monday . . . | Extended filing period begins for |
| :---: |
| Fall Semester 1974 admission |

applications
September 13, Friday. . . . . . Completion of regular registration
September 13, Friday

September 16, Monday . . . . . . First day of late registration | registration fee without late |
| :--- |

| ```June 3-28, 1974, Monday through Friday . . . . . . . Initial period for accepting admission applications for Winter Term 1975``` |
| :---: |
| July 1, 1974, Monday . . . . . Extended filing period begins for Winter Term 1975 admissions applications |
| November 13, 1974, Wednesday . Beginning of regular academic advising period for Winter Term 1975 and Spring Semester 1975 |
| December 5, 1974, Thursday . . End of regular academic advising period for Winter Term 1975 and Spring Semester 1975 |
| December 16, 1974, Monday . . . Registration for Winter Term 1975 and Spring Semester 1975 |
| December 16, 1974, Monday . . . Last day to register for Winter  <br> Term 1975 and Spring Semester  <br>  1975 without late registration <br>  fee |
| January 1, Wednesday . . . . . Legal Holiday (New Year's Day) |
| January 6, Monday . . . . . . . Beginning of late academic advis-- |
| January 6, Monday . . . . . . . First day of late registration |
| January 6, Monday . . . . . . . Instruction begins |
| January 8, Wednesday . . . . . End of late academic advising period for Winter Term 1975 |
| January 8, Wednesday . . . . . Last day of late registration |
| January 8, Wednesday . . . . . Last day to add a course |
| January 8, Wednesday . . . . . Last day to drop a course |
| January 10, Friday . . . . . . Last day to apply for Winter Term 1975 graduation |
| January 10, Friday . . . . . . Applications due for Fall Semester 1975 graduation |
| January 14, Tuesday . . . . . . Last day to submit, approved master's degree thesis for Winter, Term 1975 graduation |
| ```January 17, Friday . . . . . . Last day to file for partial refund of fees after withdrawing from College``` |
| February 4, Tuesday . . . . . . Last day of classes for Winter Term 1975 |
| ebruary 4, Tuesday . . . . . . Winter Term 1975 ends |

SPR'ING SEMESTER 1975
August 1-30, 1974, Thursday
through Friday . . . . . . . Initial period of accepting admission applications for Spring Semester 1975
September 3, 1974, Tuesday . . Extended filing period begins for Spring Semester 1975 admission applications

| November 13, 1974, Wednesday | . Beginning of regular academic advising period for Spring Semester 1975 |
| :---: | :---: |
| November 15, 1974, Friday | . Last day to file applications for financial aid in Spring Semester 1975 |
| December 5, 1974, Thursday | End of regular academic advising pèriod for Spring Semester 1975 |
| December 16, 1974, Monday | . Régistration for Spring Semester 1975 |
| December 16, 1974, Monday | Last day to register without late registration fee |
| February 12, Wednesday | Beginning of late academic advising period for Spring Semester 1975 |
| February 12, Wednesday | First day of late registration |
| February 12, Wednesday | Instruction begins |
| February 12, Wednesday | First day to add or drop a course |
| February 17, Monday | . Legal Holiday (Washington's Birthday) |
| February 24, Monday | End of late academic advising perirod for Spring Semester 1975 |
| February 24, Monday | Last day of late registration |
| February 26, Wednesday | . Last day to apply for Spring Semester 1975 and Summer 1975 graduation |
| February 26, Wednesday | . Last day to file for partial refund of fees after withdrawing from the College |
| February 27, Thursday | Last day to add a course |
| March 12, Wednesday | Last day to drop a course |
| March 12, Wednesday | - Applications due for Winter Term 1976 graduation |
| March 24-31, Monday through Monday | Easter Holiday (College closed Monday, March 31) |
| April 28, Monday | . Beginning of regular academic advising period for Fall Semester 1975 |
| May 1, Thursday | Last day to submit approved master's degree thesis for Spring Semester 1975 graduation |
| May 9, Friday | . Last day to withdraw from College for Spring Semester 1975 |
| May 15, Thursday | Classes meet on Monday schedule |
| May 16, Friday | . End of regular academic advising period for Fall Semester 1975 |
| May 21, Wednesday | Classes meet on Monday schedule |
| May 22, Thursday | . Last day of classes for Spring Semester 1975 |



## 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 fourteen of the nineteen 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 itș 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 EducationBreadth Requirements" regardless of the type of bachelor's degree or majos 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-byexamination 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 1973 totaled nearly 290,000 students, who were taught by a faculty of 16,000 . Last year the system awarded over 55 percent of the bachelor's degrees and 35 percent of the master's degrees granted in California. Over 400,000 persons have been graduated from the nineteen campuses since 1960.

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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:

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## THE COLLEGE AND COMMUNITY

California State College, Stanislaus was founded in 1957 when Gov. Edmund G. Brown signed Assembly Bill No. 166 to create an institution of higher education in Stanislaus County.

In 1959 a committee chose a 220 -acre site just north of the City of Turlock for the college's permanent. campus, and while planning and construction were under way on CSCS' first buildings the college opened its doors in temporary facilities at the Stanislaus County Fairgrounds.

During its five years in those temporary quarters the college admitted only junior and senior students for reasons of space and curriculum. Lower division students were not admitted until the permanent campus was opened in 1965 and since then its enrollment. * has almost tripled to about 2,600 students.

The majority of CSCS' students come from a six-county area around the college although each year finds an increasing number of students coming in from metropolitan areas north and south, and from other western states and foreign countries, as Cal State, Stanislaus' reputation as an fine liberal arts school is . spread.

Dr. Carl Gatiin is CSCS' third president, having been appointed in 1969 to succeed Dr. Alexaṇder Capurso who returned to teaching. The college's first president was Dr. J. Burton Vasche.

Cal State, Stanislaus awards bachelor degrees in 24 subject* areas and master's degrees in six: Business Administration, Education, English, History, Speech, and Psychology.

Curriculum policy in the future will find a substantial continuation of the college's broad-based liberal arts package with increased emphasis on improving its science coñtent for the nonsčijence majors.

The City of Turlock is situated on the southern edge of Stanislaus Coiunty about 13 miles south of Modesto. It is a growing rural community of more than 16,000 persons. Its economy is based largely upon agricultural products and food processing plants although there is a trend toward light and medium industry.

Turlock is about two hours by car from San Francisco, 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 newsepaper, a radio station, two theaters, and several other activities of educational, cultural, and recreational interest.

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 Art's and Humanities, Behavioral and Social Sciences, Natural Sciences, or the Divisions of Business Administration and Education. The major areas are:

Anthropology
Art
Biological Sciences
Business Administration Chemistry
Child Development
Drama
Economics
English

French
Geography
History
Liberal Studies
Mathematics
Music
Physical Education
Physical Sciences

Physics
Political Science
Psychology
Social Sciences
Sociology
Spanish
Special Major
Speech

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, and the Master of Science degree in Psychology.

## 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 Véterans 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.

## 4-1-4 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 ll 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 gradualtion 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 $\times 1-1 / 2,=6$ quarter units): Quarter unit's are converted to semester units by multiplying by $2 / 3$ ( 9 quarter units $\times 2 / 3=6$ 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 require, ments 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 sumner session bulletin is issued annually.

The College offers a program of extension courses. Sumner session and extension students planning to complete the College's degree or credential programs should seek admission to the College.

Extension credit may be considered by the Admissions and Records office toward a degree only if requested by a student.

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

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 apply and secure packets from the Office of Continuing Education.

## 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 University of Heidelberg, Germany; the University of Florence, Italy; the Universidad Ibero-Americana, Mexico; the University of Granada and the University of Madrid,

Spain; the University of Uppsala, Sweden; Tel Aviv University and the Hebrew University of Jerusalem, Israel; and Waseda University, Japan. In the United Kingdom, cooperating universities, which may vary from year to year, include Dundee, 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.

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, who show ability to adapt to a new environment, and who, in the cases of France, Germany, Mexico, and Spain, are proficient 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 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.

Application for the 1975-76 academic year must be submitted before February 14, 1975 (except for United Kingdom applicants who must submit applications by January 7, 1975). Applicants are notified of acceptance by Apri, 1 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 293. Projects in Study Abroad: (Subject) No maximum number of units. Open only to students in California State University and Colleges International Study Program.

INST 493. Projects in Study Abroad: "(Subject) No maximum number of units. Open only to studentș in California State University and Colleges International Study Program.

INST 593. Projects in Study Abroad: (Subject) No maximum number of units. 'Open only to students in California State University and Colleges International Study Program.

## THE FACILITIȨS

Califormia State College, Stanislaus and the City of Turlock are working together to provide an attractive and highly functional campus/community complex and the fruits of their labor has been rewarding.

The campus is being totally constructed from a master plan by an independent architectural firm to allow for similar design of buildings even though they are erected years apart, and the City of Turlock has masterplanned the area surrounding the College to permit necessary housing and commercial developments as the need exists.

The Library/Administration Building and the Classroom Building, the first to be constructed, are the hub of the campus and serve a variety of purposes, as well as providing space for most faculty offices.

The Performing Arts Complex, which opened in the fall of 1970, is a multibuilding complex which houses the art, drama, and music departments. A modern and very comfortable 300 -seat theatre is the site of most drama productions, although a smaller 'studio theatre" can be used as a*kind of theatre-in-the-round.

A concert "hall that can seat up to 200 persons is a feature of the music portion of the Performing Arts Complex, while the art department is highlighted by spacious and functional rooms that provide up-to-date equipment for practically all the media of art.

The Field House, located on the east side of the campus near the outdoor athletic fields, is the center of physical education activities.

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

The Science Building was completed and occupied in Fall 1972. Future construction plans include another classroom, a gymnasium, a cafeteria, and an addition to the library.

LIBRARY
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 attractice and comfortable building staffed by professionally trained librarian-scholars
who organize, analyze, and interpret them, and 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 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 completedepository of California documents.

The Library also has a Curriculum Library and Children's Collection. About 5,000 volumes of courses of study, curriculum guides, and units of work are available. The College Library is one of the twenty-one Curriculum Materials Center Depositories through which it obtains two copies of all curriculum materials published by the county schools of California. 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 most times to give reference service and reader advisory service.

## AUDIOVISUAL 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 offcampus 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 Divisjon 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 REQUTREMENTS

Requirements for admission to the College are in accordance with Title 5, Chapter 1, Sub-chapter 3, of the California Administrative Code, as amended by the Board of Trustees of The California State University 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 aḑequate 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 entrollment; college credit earned in summer session after high school and prior to regular matriculation in collegé; 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 á first-time freshman for application quota purposes as well as admission. Further, the accelerated student, who completes his high school program mid-year, 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 admíssion. All such college or advanced standing credit, if fully acceptable as transfer credit, will be granted the student after admission.
4. College preparatory "laboratory science, 1 year in 11th or 12 th grade
5. College preparatory history and/or social sciences, 2 years
6. 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: Eng1ish, 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, l 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).

PHYSİCS: 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 one-third of California high school graduates. The minimumeligibility 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.

ADMISSION ELIGIBILITY FOR CALIFORNIA HIGH SCHOOL GRADUATES

| 岑 |  |  |  |  | $\begin{array}{r} 0 \\ \text { E } \\ \text { E } \\ \text { O } \\ 0 \\ 0 \end{array}$ | 品 | $\begin{array}{r} 0 \\ \text { Hit } \\ \text { H0 } \\ \hline \end{array}$ | $\begin{array}{r} 0 \\ \text { E } \\ \text { E } \\ 0 \\ 0.0 \\ \hline \end{array}$ | ¢ | $\begin{array}{r} 0 \\ y_{1}^{10} \\ 000 \\ 40 \end{array}$ |  | 号 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3.21 Eligibleand with anyabove score |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 2.96 | 15 | 704 | 2.70 | 21 | 912 | 2.44 | 26 | 1120 | 2.18 | 31 | 1328 |
|  |  |  | 2.95 | 16 | 712 | 2.69 | 21 | 920 | 2.43 | 26 | 1128 | 2.17 | 31 | 1336 |
| 3.20 | 11 | 512 | 2.94 | 16 | 720 | 2.68 | 21 | 928 | 2.42 | 26 | 1136 | 2.16 | 31 | 1344 |
| 3.19 | 11 | 520 | 2.93 | 16 | 728 | 2.67 | 21 | 936 | 2.41 | 26 | 1144 | 2.15 | 32 | 1352 |
| 3.18 | 11 | 528 | 2.92 | 16 | 736 | 2.66 | 21 | 944 | 2.40 | 27 | 1152 | 2.14 | 32 | 1360 |
| 3.17 | 11 | 536 | 2.91 | 16 | 744. | 2.65 | 22 | 952 | 2.39 | 27 | 1160 | 2.13 | 32 | 1368 |
| 3.16 | 11 | 544 | 3.90 | 17 | 752 | 2.64 | 22 | 960 | 2.38 | 27 | 1168 | 2.12 | 32 | 1376 |
| 3.15 | 12 | 552 | 2.89 | 17 | 760 | 2.63 | 22 | 968 | 2.37 | 27 | 1176 | $2.11{ }^{\prime \prime}$ | 32 | 1384 |
| 3.14 | 12 | 560 | 2.88 | 17 | 768 | 2.62 | 22 | 976 | 2.36 | 27 | 1184 | 2.10 | 33 | 1392 |
| 3.13 | 12 | 568 | 2.87 | 17 | 776 | 2.61 | 22 | 984 | 2.35 | 28 | 1192 | 2.09 | 33 | 1400 |
| 3.12 | 12 | 576 | 2.86 | 17 | 784 | 2.60 | 23 | 992 | 2.34 | 28 | 1200 | 2.08 | 33 | 1408 |
| 3.11 | 12 | 584 | 2.85 | 18 | 792 | 2.59 | 23 | 1000 | 2.33 | 28 | 1208 | 2.07 | 33 | 1416 |
| 3.10 | 13 | 592 | 2.84 | 18 | 800 | 2.58 | 23 | 1008 | 2.32 | 28 | 1216 | 2.06 | 33 | 1424 |
| 3.09 | 13 | 600 | 2.83 | 18 | 808 | 2.57 | 23 | 1016 | 2.31 | 28 | 1224 | 2.05 | 34 | 14.32 |
| 3.08 | 13 | 608 | 2.82 | 18 | 816 | 2.56 | 23 | 1024 | 2.30 | 29 | 1232 | 2.04 | 34 | 1440 |
| 3.07 | 13 | 616 | 2.81 | 18 | 824 | 2.55 | 24 | 1032 | 2.29 | 29 | 1240 | 2.03 | 34 | 2448 |
| 3.06 | 13 | 624 | 2.80 | 19 | 832 | 2.54 | 24 | 1040 | 2.28 | 29 | 1248 | 2.02 | 34 | 1456 |
| 3.05 | 14 | 632 | 2.79 | 19 | 840 | 2.53 | 24 | 1048 | 2.27 | 29 | 1256 | 2.01 | 34 | 1464 |
| 3.04 | 14 | 640 | 2.78 | 19 | 848 | 2.52 | 24 | 1056 | 2.26 | 29 | 1264 | 2.00 | 35 | 1472 |
| 3.03 | 14 | 648 | 2.77 | 19 | 856 | 2.51 | 24 | 1064 | 2.25 | 30 | 1272 | 1.99 |  |  |
| 3.02 | 14 | 656 | 2.76 | 19 | 864 | 2.50 | 25 | 1072 | 2.24 | 30 | 1280 | and | eli | ible |
| 3.01 | 14 | 664 | 2.75 | 20 | 872 | 2.49 | 25 | 1080 | 2.23 | 30 | 1288 | below |  |  |
| 3.00 | 15 | 672 | 2.74 | 20 | 880 | 2.48 | 25 | 1088 | 2.22 | 30 | 1296 |  |  |  |
| 2.99 | 15 | 680 | 2.73 | 20 | 888 | 2.47 | 25 | 1096 | 2.21 | 30 | 1304 |  |  |  |
| 2.98 | 15 | 688 | 2.72 | 20 | 896 | 2.46 | 25 | 1104 | 2.20 | 31 | 1312 |  |  |  |
| 2.97 | 15 | 696 | 2.71 | 20 | 904 | 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 Cóllege 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 a given program 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. 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 firsttime 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 ${ }^{\text {s }}$ 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

UNCLASSIFIED GRADUATE STANDING. For admission to graduate standing as an unclassified graduate student, a student shall have completed a four-year college course and hold an acceptable baccalaureate degree from an accredited institution; or shall have completed equivalent academic preparation as determined by appropriate campus authorities; and must satisfactorily meet the professional, personal, scholastic, and other standards for graduate study, including qualifying examinations, as the appropriate campus authorities may prescribe.

Admission to the College with unclassified graduate standing does not constitute admission to graduate degree curricula.

CLASSIFIED GRADUATE STANDING. A student who has been admitted to the College under the unclassified graduate requirement above may, upon application, be admitted to an authorized graduate degree curriculum if he satisfactorily meets the professional, personal, scholastic, and other standards for admission to the graduate degree curriculum, including qualifying examinations, as the appropriate campus authorities may prescribe. Only those applicants who show promise of success and fitness will be admitted to
graduate degree curricula, and only those who continue to demonstrate a satisfactory leyel of scholastic competence and fitness, as determined by the appropriate campus authorities, shall be eligible to continue in such curricula. Stuḍents whose performance in a graduate degree curriculum is judged to be unsatisfactory by the authorities of the campus may be required to withdraw from all graduate degree curricula offered by the campus.

## 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 S.tate 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 Enroliment 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 determing 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 nat register and enroll in classes until his Residence Questionnaire has been received by the Admissions Office.

The following statement of the rules regarding residency determinațion 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, 23753.1, 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. A residence determination date is set for each academic term and is the date from which residence is determined for that term. If you have any questions respecting the applicable date, the campus Admissions Office can give you the residence determination date for the term for which you are registering.

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

1. Persons below the age of 19 whose parents were residents of California but who left the state while the student was still a minor. When the minor reaches age 18 , the exception continues for one year to enable the student to qualify as a resident student.
2. Persons below the age of 19 who have been present in California for more than a year before the residence determination date, and entirely self-supporting for that period of time.
3. Persons below the age of 19 who have lived with and been under the continuous direct care and control of an adult, not a parent, for the two years immediately preceding the residence determination date. Such adult must have been a California resident for the most recent year.
4. Dependent children and spouses of persons in active military service astationed in Califprnia 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 pther than education at state-supported institutions of higher education. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year.
6. A student who is an adult alien is entitled to residence classification if the student has been lawfully admitted to the United States for permanent residence in accordance with all applicable provisions of the laws of the United States; provided, however, that the student has had residence in California for more than one year after such admission prior to the residence determination date. A student who is a minor alien shall be entitled to residence classification if both the student and the parent from whom residence is derived have been lawfully admitted to the Unized States for permanent residence in accordance with all applicable laws of the United States, provided that the parent has had residence in California for more than one year after acquiring such permanent residence prior to the residence determination date of the term for which the student proposes to attend the University.
7. Certain 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:

[^0]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 California Administrative Code. Resident students who become nonresidents, and nonresident students qualifying for exceptions whose basis for so qualifying changes, must inmediately 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 allematerials 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, òr 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 abové.

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 student. (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:


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 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 (architecture, natural resources, nursing, and physical therapy) are impacted

[^1]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, ettc.

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 regylarly 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 (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 graduate 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 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 requèst 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 admișsiồn.

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.0. Box 168, Iowa City, Iowa 52240. "The ACT will be given during 1974-75 on the forlowing dates:

Saturday, June 15, 1974 Satưrday, February 22, 1975
Saturday, October 19, 1974
Saturday, December 14, 1974

Saturday, April 26, 1975
Saturday, June 14, 1975

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 22, 1974 | Saturday, February 1, 1975 |
| :--- | :--- |
| Saturday, October 12, 1974 | Saturday, April 5, 1975 |
| Saturday, November 2, 1974 | Saturday, June 28, 1975 |

Saturday, December 7, 1974
Applications and fees should be sent directly to the College Entřance Examination Board, Box 1025, Berkeley, California 94701, in time to be roceived 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 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 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. Advancęd 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 a CEEB Advanced Placement examination. Advanced placement and unit credit also may be awarded for satisfactory scores on the 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

Credit from two-year colleges is allowed up to a maximum of 70 semester units. No upper division credit may be allowed from a two-year college, nor may credit be allowed for professional courses in education or courses not appropriate in purpose, scope, and depth for a baccalaureate degree.

## CREDIT FROM NON-ACCREDI'TED 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 frof 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, recomendation, department endorsement, and completion of 12 units at the College with a grade point average of 3.0 (B) or̀ better or completion of 24 units with àt least a 2.5 (C+) grade point average.

## 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.

WORKŞHOP 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.

## ACADEMIĆ AbVISEMENT

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 ior 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 an Advisement Clearance Card which is a prerequisite for registration.

A student is prepared for his first advising conference only after he has reviewed appropriate sections of the College catalog, examined course offerrings 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:

Law - Political Science (see Political Science section)
Medicine, dentistry, pharmacy, veterinary medicine, and other health professions - Health Services Advisory Committee. Registration with the committee should be made 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", Professional School Preparation.)

## 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 is ready for registration. Academic advisement must precede registration.
$A^{\prime}$ Class Schedule listing courses, offered is available before registration for each term. At registration, every student is required to file an Official Program card with the Admissions and Records Dffice. Registration by mail is not permitted but registration by proxy is allowed. Late registrants may find themselves handicapped in arranging their programs and must pay a $\$ 5$ 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 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 cláss after registration may be refused entrance to the class by the instructor. Students are responsible for dropping such classes.

In accordance with new credential regulations for school personnel (Ryan Act, 1970), the College is developing and submitting programs to the Commission on Teacher Preparation and Licensing (CTPL) as rapidly as guidelines become available. The Ryan Act provides for both service credentials and teaching credentials; the three major teaching credentials are as follows:

1. Multiple Subject Teaching Credential: for teaching in a self-contained classroom in grades pre-school through twelve and in classes for adults.
-2. Single Subject Teaching Credential: for teaching a single subject in a departmentalized school; most commonly applicable to California junior and senior high schools.
2. Specialist Credential: for teachers with special preparation and competence in the area designated.

The Comnission on Teacher Preparation and Licensing has approved the programs at Cal State College, Stanislaus leading to the following credentials:

1. Multiple Subject Instruction
2. Single Subject Instruction

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.

Teaching Credentials:

1. Reading Specialist Credential
2. Specialist in Special Education: Communication Handicapped
Service Credentials:
3. Pupil Personnel Credential: Counseling
4. Pupil Personnel Credential: Psychology
5. Administrative Services Credential

The College is preparing proposals for two credential programs created by the Ryan Act:

1. Specialist in Special Education: Learning Handicapped
2. Specialist in Special Educațion: Early Childhood Education

Students interested in revised or proposed programs should check with the Office of the Division of Education for the current status of programs.

## 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 $3.5(\mathrm{~B}+$ ) grade point average for all course work attempted at the College.

GRADING SYSTEM.
ACADEMIC GRADES


> 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, and 3; and to a grade of "F" for grading options 4 and 5. (See Class Schedule for grading options.) 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 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).
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 circunstances 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 - Şatisfactory 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 . . O grade points (equivalent to grade of "F").
IS - Incomplete, Satisfactory . . No effect on grade point average.
IU - Incomplete, Unsatisfactory . . O 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.

## PROGRESS PONNTS

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

Any 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. "Credit" 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 SystemAcademic Grades.

[^2]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 aftempted 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.

## DISQUALIFICATION

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 ţhe 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 wiḷl 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:
1.* 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.
2. 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.
3. Failure to comply, after due notice, with an academic requirement or regulation which is routine for all students or a defined group of students (e.g., failure to take tests, complete specified coursework, 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:

1. The conditions for removal of administrative-academic probation are not met within the period specified, or
2. The student becomes subject to academic probation while on administrative-academic probation, or
3. 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 and only the most recent grade earned will be used for unit credit or grade points. This policy, effective Summer 1973, shall apply only to the first four courses repeated. 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 emphasis.

A student should file a Notification of Repeated Course form at the Admissions and Records Office for each course he repeats.

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 1974-75 at the College which are applicable to General Education requirements. Only courses so designated are approved for credit applicable to the "24-unit Liberal Arts requirement" (1960-64), the General Education "Liberal Arts Electives requirement" (1964-65), the General Education "Arts and Sciences Electives requirement" (1965-67), and General Education (1967-75). 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. 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 Cqllege 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:

1. Enrolling in the course for Credit by Examination during a regular registration period.
2. 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 Câtalog Courses

A currently enrolled 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:

1. The student must secure a Request for Credit by Challenge 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 a copy of the completed request with the Director of Testing. Instructions for completing and processing the request are contained in the form.
2. The student must take the Challenge Examination at the time and place specified and pass it at the level deemed satisfactory by the department. These examinations will be administered no later than the end of the eighth week in each semester.
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:
3. An appropriate course is not offered by the College.
4. Special arrangements must be made with the appropriate department for the preparation of the necessary examination.
5. The student must secure a Request for Credit by Challenge Examination form, secure the necessary approvals, pay an examination fee of $\$ 6$ and file a copy of the completed request with the Director of Testing.
6. 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 and CLEP Programs

Credit by Examination may also be secured through the College Entrance Examination Board Advanced Placement Progran as well as by passing appropriate sections of the College-Level Examination Program (CLEP) general and subject examinations. Further information concerning these options may be obtained from the Admissions and Records Office or the Office of Testing Services.

In individual cases, a limit may be imposed on the number of units of credit which can be earned through Challenge Examinations.

## 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 498, 598, and 698 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.

A1l 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 acceptablè .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 DEGREE OBJÉCTIVES
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 coursses 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:

1. 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 compeliing 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 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.

## 1. 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 fouryear college enrollment.
2. Requests for Approval
a. Each Plannèd Student Leave request must include a stated intent to re-enroll 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. Educảtional leaves may begin at any time. However, if a student chooses to begin a leave while he has coursework 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 tos 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 à ccording to the following schedule: Fall, November; Winter and Spring, August--or 30 days after leave approval, whichever is.flater. 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 coursework 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).

## 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 his control and that there is still a possibility of earning credit. It is the responsibility of the student 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, and 3; 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 assigniment 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 . . . . 0-291/2 acceptable completed semester units
Sophomore . . . 30-591/2 acceptable completed semester units
Junior . . . . . 60-89夝 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 |
| :--- |
| Conditional | . . . . . . . Admitted with scholastic deficiency

verification of of admission status

Registration status:
Continuing . . . . . . . Student enrolled in last semester
Former̀ . . . . . . . . . Returning student who registered in a previous term" but not the last semester
New . . . . . . . . . . Student who is registering in a regular term for the first time

Full- and part-time students


| Part-time . . . . . . Student status is defined as attempt- |  |
| ---: | :--- |
|  | ing less than 10 units in a semester |
|  | or less than 3 units during a Winter |
| term. |  |

## 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 mailing address after admission or registration should immediately notify the Admissions and Records Office. This information is needed in order to insure registration packets, 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.

## TRANSCRIPTS

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.

## 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 recomendation to the School Dean.

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 $)^{\text {. }}$. Total registration fees and tuition for nonresidents 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 . . . . . . . . . . . . . . . . . . . . 48.00
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 Students--Fall Semester . . . . . . . . . . 9.00
Winter Term . . . . . . . . . . . . 2.00
Spring Semester . . . . . . . . . . 9.00
Límited Students--Fall Semester . . . . . . . . . . . 4.50
Winter Term . . . . . . . . . . . . 2.00
Spring Semester . . . . . . . . . . 4.50
Summer Session . . . . . . . . . . . . . . . . . . . 2.00
Except that no student shall be required to pay an
aggregate amount in excess of $\$ 20.00$ for the entire year
College. Union Fees:
Regular Students--Each Semester' . . . . . . . . . . . . 9.00
Limited Students--Each Semester . . . . . . . . . . . . 4.50
Winter Term . . . . . . . . . . . . . . . . . . . . . . 2.00
Summer Session . . . . . . . . . . . . . . . . . . . . . 4.00
Health Facility Fee--Each Semester (non-refundable) . . . 2.50
--Winter Term (non-refundable) . . . 1.00
OTHER FEES AND CHARGES (in addition to registration fees)
Nonresident tuition including foreign nonresident:
For the first 13 units (per unit or fraction of unit) . 43.00
For the 14 th unit and over (maximum) per Semester . . . 563.00
Application Fee (non-transferable $\&$ non-refundable) . . . 20.00
Late Registration Fee (non-refundable) . . . . . . . . . . 5.00
Graduation Fee . . . . . . . . . . . . . . . . . . . . 10.00
Check returned from bank for any cause . . . . . . . . . . 5.00
Transcript of Record . . . . . . . . . . . . . . . . . . . 1.00
Failure to meet administratively required appointmentor time limit2.00
Replacement of equipment or materials lost or damaged Cost of Item
Library books or materials lost or damaged ..... Cost plus $\$ 1.00$
Summer Session-per unit ..... 30.00
Extension Courses-per unit:
Lecture and Discussion Courses ..... 26.00
Activity Courses ..... 33.75
Science Laboratory Courses ..... 52.00
Parking Fees:
Non-reserved 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.

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 2 nd week, $50 \%$ the 3 rd week, $25 \%$ the fourth week. There will be no refund after the 4th week.

## DEBTS OWED TO THE INSTITUTION

From time to time the student may become indebted to the institution. This could occur, for example, when the student fails to repay money borrowed from the institution. Similarly, debts ocčur 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 will 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 1973-74 year, the total cost of operation was $\$ 553.8$ million, which provides continuing support for 233,290 full-time equivalent ( $\mathrm{FTE}^{*}$ ) students. This results in

[^3]an average cost per FTE student of $\$ 2,374$ per year. Of this amount, the average student pays $\$ 224$. Included in this average student payment is "the amount paid by nonresident students. The remaining $\$ 2,150$ in costs are funded by state and federal taxes.

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

> 1973-74 TOTAL COSTS OF CAMPUS OPERATION (Including Building and Land Amortization)

Enrollment: 233,290 FTE

|  | Average Cost Per Student |  |  |
| :---: | :---: | :---: | :---: |
|  | Amount | (FTE)* | Percentage |
| State Appropriation (Support) | \$441,860,573 | \$1,894 | 79.8 |
| State Funding (Capital Outlay)** | 29,161,250 | 125 | 5.3 |
| Student Charges | 52,349,450 | 224*** | 9.4 |
| Federai (Financial Aid) | 30,476,849 | 131 | 5.5 |
| Total | \$553,848,122 | \$2,374 | 100.00 |

[^4]


The Student Services Office is established to meet student needs and offer assistance for those problems that prevent them from fully benefiting from the educational program. Specific services are listed on the following pages and completely described in the Student Handbook.

## 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 \& SELECTIVE SERVICE INFORMATION

Individual personal counseling or group counseling is available from a staff of trained counselors who are available to assist with any student concerns. A counselor is also provided to assist" with Selective Service problems.

## HOUSING

There is no on-campus housing but the College does maintain a current listing of off-campus live-in situations, apartments and houses available for students, as well as a list of students looking for roommates. There is also a privately owned dormitory. None of these off-campus facilities are approved or supervised by the College. The Housing Office is available to discuss problems associated with locating, renting and occupying housing in the college community.

## CAREER PLANNING AND PLACEMENT

Students are assisted in securing career employment. Placement services include testing and counseling in both interests and abilities; assistance in the preparation of placement folders and forwarding them to prospective employers; help in developing resumes and letters of application; listing of open positions; arranging interviews by employers seeking personnel; and maintaining a career library.

## 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.

A current listing of local off-campus part-time job opportunities is maintained in the Student Services Office for student use.

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

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 GRANT PROGRAM - 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 STŲDENT 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.
${ }^{7}$
EMERGENCY LOAN ${ }^{\text {F }}$ UND - Emergency loans to meet educational expenses are ${ }_{\text {§ }}$ 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 br 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 Classroom 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.

There is a substantial intramural program available throughout the year including football, basketball, volleyball, etc. The College also participates in seven intercollegiate sports--baseball, basketball, golf, cross country, track, tennis (male and female) and volleyball (female).

## 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 älso 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 improvenient 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 needed. 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. If an applicant whose only need for assistance is financial expects to meet standard CSUC admission requirements, he should not seek admission to the Educational Opportunity Program. Only those seeking special admission and/or services other than financial assistance should do so. See Admission to the College section of this catalog.

## STUDENT CONDUCT, RIGHTS AND RESBPONSIBILITY

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 ${ }^{\text {manner. Departures from appropriate conduct can result in }}$ 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 Responsibilitieś and a Student Grievance Procedure in Academic Matters available.

## VETERANS PROGRAM

There is a Veterans Office on campus which aids veterans with academic, personal and financial problems. In particular, it offers assistance with problems concerning VA benefits, transitional academic difficulties, tutoring, personal counseling, job placements etc.

## VETERANS ASSISTANCE

Thé College maintains liaison with the U.S. Veterans Administration and the California State Department of Veterans Affairs. The Registrar assists 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, 49 Fourth Street, San Francisco, California 94103. The VA determines the veteran's eligibility and sends him two copies of his Certificate of Eligibility. The veteran then files both copies with the Veterans Clerk in the Admissions and Records Office.

FULLTIME UNIT LOAD - A veteran (or dependent of a veteran), under either 'Chapter 34 or 35 , must carry 10 or more units to be considered a "fulltime student according to VA regulations.

INFORMATION - Further information about Veterans' Administration or Cal-Vेet regulations is available from the Veterans Clerk in the Admissions and Records 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.

At the same time, the unique structure of the 4-1-4 academic year merits careful attention with regard to student program planning and degree requirements. Since the calendar consists of two semesters of 13 weeks and a month-long Winter Term, proportionate adjustments must be made in student class loads, teaching loads, and student fees. Whereas, for example, a full-time student load under a traditional semester system would be 15-16 units, a normal full-time student load in Fall or Spring semester under 4-1-4 would be 13-14 units. The total number of units for the year would still be $30-32$ units, since Winter Term courses are 4 semester units (equivalent to a full student load).

## 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.

Winter Term courses are graded on a Credit/No Credit basis, although early in the course students may request traditional grading.

Winter Term courses are designed to give students and faculty the opportunity for intensive examination of a single subject without the constraints normalify imposed by a full schedule. Winter

Tem offerings will feature interdisciplinary studies, off-campus field work and research, and foreign courses. Students may proposé Winter Tèrm courses "or* projects of self-directed study under faculty sponsorship. Student course proposals--as all Winter Term propdsals--require the approval of the faculty sponsor, department chairtan, and School Dean (Division Chairman) before being submitted to the Winter Term Committee and the Vice President for Academc Affairs. (See Winter Term Bulletin for details.)

DEGREES; OFFERED
The College grants the Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, and Master of Business 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 APPRROVAL

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

## GRADUATION "WITH HONORS"

A candidate for a baccalaureate degree who completes his undergraduate progrảm with a 3.5 ( $\mathrm{B}+$ ) çumulative college grade point average or higher and a 3.5 Stanislaus residence credit grade point average or higher, is graduated "With Honors."

## 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.

A student must complete a mintimum 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:

1. Students entering as freshmen with less than 15 semester units must complete 12 units of Winter Term course work.
2. 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.
3. Students entering as juniors with 75 or more semester unit's 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 aḍopted 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 ${ }^{\text {(b) }}$
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. Completion of the NSCI 105-106 sequence satisfies these requirements.


SOCIAL SCIENCES ${ }^{\text {(c) }}$
A minimum of 6 semester units are required to include at least two courses from the following list.

ANTH 200. Cultural Profiles: Introduction to Peoples of the World, 3 units
ANTH 206.
ANTH 209. Introduction to Prehistoric Archeology, 3 units
ECON 250. Principles of Economics I, 4 units
ECON 251. Principles of Economics II, 4 units
ETHS 200. Contemporary Black Studies, 3 units
ETHS 210. Contemporary Chicano Studies, 3 units
ETHS 220. Contemporary Asian-American Studies, 3 units
ETHS 230. Contemporary Native American Studies, 3 units
GEOG 201. Introduction to the Physical Environment, 3 units
GEOG 202. Introduction to Cultural Geography, 3 units
GEOG 240. World Regional Geography I, 3 units
GEOG 241. World Regional Geography II, 3 un'its
HIST 101. Western Civilization I, 3 units
HIST 102. Western Civilization II, 3 units
HIST 205. Early African, American, East Asian and Middle Eastern Civilizations, 4 units
HIST 206. Third World in the Age of Imperialism, 4 units
PSCI 201. Modern Political Ideologies, 3 units
PSCI 260. Issues in International Politics, 3 units
PSYC 201. Introduction to Psychology, 3 units
PSYC 202. Introduction to Psychological Methods, 3 units
PSYC 215. Psychology of Marriage and Adjustment, 3 units
SOCL 101. Introduction to Sociology, 3 units
SOCL 224. Social Problems, 3 units

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 101. Introduction to Literature, 3 units
ENGL 150. Perspectives in World Literature, 3 units
PHIL 101. Introduction to Philosophy, 3 units
PHIL 300. Humanistic Inquiry, 3 units
2. ARTS

ART 100. Introduction to Drawing, 3 units
ART 101. Drawing I, 3 units
ART 210. Art History Survey I, 3 units
ART 211. Art History Survey II, 3 units
DRAM 101. Introduction to Theatre, 3 units
DRAM 230. Theatre Workshop I, 2 units
DRAM 250. Beginning Acting, 3 units
MUS 100. Introductjon to Music, 3 units
MUS 240. Orchestra, 1 unit ${ }^{(\mathrm{e})}$
MUS 241. Chorale, 1 unit ${ }^{(e)}$
MUS 243. Chamber Singers, 1 unit ${ }^{(e)}$
MUS 244. 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 100. English Composition, 3 units
2. MATHEMATICS ${ }^{(g)}$

MATH 100. Math for Liberal Arts Students, 3 units
MATH 103. Elementary Foundations of Mathematics I, 3 units
MATH 104. Elementary Foundations of Mathematics II, 3 units
MATH 105. Basic College Algebra, 3 units
MATH 110. Precalculus, 3 units
MATH 14l. Calculus I, 4 units
MATH 142. Calculus II, 4 units
MATH 150. Finite Mathematics, 3 units
MATH 160. Statistics, 4 units
MATH 161. Statistics for Decision Making, 3 units
MATH 191. Calculus with Applications I, 3 units
MATH 192. Calculus with Applications II, 3 units

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| :--- | :--- |
| QTHER BASIC SUBJECTS |  |
| BUS 200. | Introduction to Computers, 2 units |
| ENGL• 205. | Technical and Report Writing, 3 units |
| FREN 101. | Elementary French I, 4 units |
| FREN 102. | Elementary French II, 4 units |
| GERM 101. | Elementary German I, 4 units |
| EERM 102. | Elementary German If, 4 units |
| MATH 120. | Computers in Society, 3 units |
| MATH 200. | Introduction to Computers, 3 units |
| PHIL 110. | Logic, 3 units |
| SPAN 101. | Elementary Spanish I, 4 units |
| SPAN 102. | Elementary Spanish II, 4 units |
| SPCH 200. | Speech Communication, 3 units |
| SPCH 201. Oral Communication Processes, 4 units |  |
| SPCH 210. | Discussion and Debate, 3 units |
| SPCH 240. | Oral Interpretation, 3 units |

ADDITIONAL COURSES
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.

## 1. UNITED STATES HISTORY AND CONSTITUTION: CALIFORNIA STATE AND LOCAL GOVERNMENT

The California Administrative Code, Title 5, Section 40404 requires " . . . . . appropriate courses in the Constitution of the United States, arid in American history, including the stúdy 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: ${ }^{(h)}$
A. 'One of the following courses covering United States history:
HIST 260. Problems in U. S. History, 3 units
-HIST 361. Colonial America, 3 units
HIST 362. Ante-Bellum America, 3 units
HIST 363. America After the Civil War, 3 units
HIST 364. Contemporary America, 3 units
B. One course covering United States Constitution and California State and local government:
PSCI 1,20. American!Government, 3 units

## 2. PHYSICAL EDUCATION

A one-semester physical education activity course at the PHED 100 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.
(a) Any student who is under catalog year graduation requirements prior to $1974-75$ 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) Requixement 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 474, Constitutional History of the United States, 3 units, will fulfill the U. S. Constitution portion of these requirements.
(i) A student may be exempted from the physical education requirement if the student is over 25 years of age.

MALOR
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:

## Anthropology

Art
Biologiçal Sciences
Botany
Entờmology
Zoology
Business" Administration
Accounting
Finance
Marketing
Operations Administration
Personnel Management
Chemistry
Child Development
Drama
Economics
English
French
Geography

History<br>History of Religions<br>Liberal 'Studies<br>Mathematics<br>Music<br>Physical Education<br>Physical Sciences<br>Physics<br>Political Science<br>Psychology<br>Social Sciences<br>Interdepartmental Program<br>Administration of Justice<br>International Studies<br>Urban \& Community Studies<br>Sociology<br>Spanish<br>Special Major<br>Speech<br>Organizational Communication

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

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.

## MIǸOR

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:

| Anthropology | French | Physical Education |
| :--- | :--- | :--- |
| Art | Geography | Physical Sciences |
| Art History | German | Physics |
| Biological Sciences | History | Political Science |
| Business Administration | History of Religions | Psychology |
| Chemistry | Mathematics | Sociology |
| Economics | Music | Spanish |
| English | Philosophy | Speech |

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 Collêge, 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.

2. 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.
4. 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 graduate student may, if 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.
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The College offers Master of Arts programs in Education, English, History, and Speech; Master of Business 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" (for post-baccalaureate students), a "Residence Questionnaire," a "Supplemental Graduate Admissions Application," a "Data Coding Form," and the $\$ 20$ non-refundable application fee. Postbaccalaureate 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 and should be filed with the campus of first choice.

## TRANSCRIPTS

An applicant who holds a baccalaureate degree from an accredited institution and who is not seeking a degree 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.

For admission to graduate standing as an Unclassified Graduate Student, a student shall have completed a four-year college course and hold an acceptable baccalaureate degree from an accredited institution; or shall have completed equivalent academic preparation a's determined by appropriate campus authorities; and must satis'factorily meet the professional, personal, scholastic, and other standards for graduate study, including qualifying examinations, as the appropriate campus authorities may prescribe.

Admission to the College with Unclassified Graduate Standing does not constitute admission to graduate degree curricula.

## CLASSIFIED GRADUATE STANDING

A student who has been admitted to the College under the Unclassified Graduate requirement above may, upon application, be admitted to an authorized graduate degree curriculum if he satisfactorily meets the professional, personal, scholastic, and other standards for admission to the graduate degree curriculum, including qualifying examinations, as the appropriate campus authorities may prescribe. Only those applicants who show promise of success and fitness will be admitted to graduate degree curricula, and only those who continue to demonstrate a satisfactory level of scholastic competence and fitness, as determined by the appropriate campus authorities, shall be eligible to continue in such curricula. Students whose performance in a graduate degree curriculum is judged to be unsatisfactory by the authorities of the campus may be required to withdraw from all graduate degree curricula offered by the campus.

A graduate student who expects to have his course work apply toward a master's degree should clearly indicate his master's degree objective on the application for graduate standing which he sends to the Admissions and Records Office. As soon as his admission to the College has been processed, the student will be informed" by "his academic adviser in the department of his major of the procedures for obtaining admission to the degree program with classified status. Minimum criteria for classified graduate standing include satisfactory undergraduate scholarship, including demonstrated potential for graduate work in the major field, and may include satisfactory scores on the Graduate Record Examinations Aptitude Test, and other criteria which the department may prescribe. For specific minimum acceptable scores, consult the department in which the major is maintained.

## 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 at least 8 units of the proposed 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 Vice President's office 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 in 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 ( 500 series) and such upper division courses ( 400 series) as are recommended by the departments and 600 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 24 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 6 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, postbaccalauteate 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 15 units must be in courses designed primarily for master's degrees (numbered in the 500 series). Most programs require more than 15 units of 500 series course work.
5. Appropriate course work from a field other than the major may be required at the discretion of the major department.
6. 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 coursês 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.

## 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 599.

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 quality 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, astudent fails to enroll within one semester (excluding summer sessions) after his official acceptance by a thesis committee, the committee is dissolved, and a new comnittee 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 599 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.

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.

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ANNOUNCEMENT OF COURSES
COURSE NUMBERING; SYSTEM
DEPARTMENTAL REQUIREMENTS
COURSE DESCRIPTIONS
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COURSE LEVEL IDENTIFICATION

> 1-99 Subcollegiate
> 100-299 Lower division courses designed primarily for freshmen and sophomores
> 300-499 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.
> 500-599 Graduate courses for degrees. These courses are open only to qualified graduate students.
> 600-699 Professional postbaccalaureate courses.
> 800-899 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:


## EXPLANATION OF COURSE NOTATIONS

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

1. 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.
2. 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
William B. Sanders, Ph.D., 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 pre-service students.

REQUIREMENTS FOR THE DEGREE WITH A CONCENTRATION IN ADMINISTRATION OF JUSTICE

1. Complete the requirements for the Bachelor of Arts Degree.
2. Complete the concentration of not less than 35 upper division units from the list below as approved by the adviser:

5 Courses in Sociology (See 1A and 1B below)
3 Courses in Psychology
3 Courses in Political Science (Jurisprudence)
1 Social Science Interdisciplinary Seminar
12 Courses of not less than 35 upper division units. A maximum of 8 units of Winter Term CR graded course work may apply toward the major.
3. No minor is required.

REQUIRED AND RECOMMENDED COURSES:

1. SOCIOLOGY. Prerequisite: SOCL 101. Introduction to Sociology, 3 units
A. Criminal Justice Research (required):

SOCL 302. Criminal Justice Research, 3 units
B. Criminology: Criminal Justice (select 4)

SOCL 325. Criminal Justice I, 3 units
SOCL 412. Sociology of Crime and Delinquency, 3 units
SOCL 413. Sociology of Correction, 4 units
SOCL 414. Sociology of Law, 3 units
SOCL 424. Social Deviance, 3 units
SOCL 425. Criminal Justice II, 3 units
2. PSYCHOLOGY. Prerequisite: PSYC 201. Introduction to Psychology, 3 units
Select 3 from the courses below:
PSYC 313. Human Development, 3 units
PSYC 316. Introduction to Psychological Testing, 3 units
PSYC 331. Introduction to Social Psychology, 3 units
PSYC 332. Introduction to Personality, 3 units
PSYC 335. Introduction to the Study of Abnormal Behavior, 3 units
PSYC 379. Introduction to Counseling Theory, 3 units
3. POLITICAL SCIENCE (JURISPRUDENCE). Prerequisite: PSCI 120. American Government, 3 units

Select 3 from the courses below:
PSCI 322. Constitutional Law, 4 units
PSCI 326. Urban Justice, 3 units
PSCI 330. Introduction to Public Administration, 3 units
PSCI 420. Problems in Civil Liberties, 3 units
PSCI 421. The Judicial Process, 3 units
PSCI 431. Public Policy Analysis, 4 units

## ANTHROPOLOGY

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

1. ANTH 206. Introduction to Cultural Anthropology, 3 units ANTH 208. Introduction to Physical Anthropology, 3 units ANTH 209. 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 231. Human Genetics, 2 units BIOL 381. Evolution, 2 units ECON 250-251. Principles of Economics I \& II, 8 units
ENGL 205. Technical and Report Writing, 3 units
GEOG 202. Introduction to Cultural Geography, 3 units
GEOG 240-241. World Regional Geography I \& II, 6 units
GEOL 210. Principles of Geology, 3 units
HIST 101-102. Western Civilization I \& II, 6 units
MATH 160. Statistics, 4 units
MATH 200. Introduction to Computers, 3 units
PHIL 110. Logic, 3 units
PSCI 200. Introduction to Political Science, 3 units
PSYC 201. Introduction to Psychology, 3 units
PSYC 202. Introduction to Psychological Methods, 3 units
SOCL 101. Introduction to Sociology, 3 units
ZOOL 105. Introduction to Zoology, 4 units
ZOOL 225. Anatomy Laboratory, 2 units
ZOOL 460. Animal Behavior-Ethology, 3 units

## THE MAJIOR:

A minimum of 30 upper division units distributed as follows: Units
ANTH 365. History of Anthropology ..... 3
Ethnography and Ethnology ..... 6
Advanced Ethnology ..... 6
Advanced Prehistoric Anthropology ..... 3
Advanced Physical Anthropology ..... 3
Additional upper division units in anthropology ..... 9
DEGREE MINOR IN ANTHROPOLOGY
The minor consists of 21 units, including at least 12 unitsof upper division courses in anthropology, normally to be dis-tributed as listed below. In addition, minors wishing to special-ize in one area of anthropology may do so with the approval oftheir minor adviser. No more than 8 units of $C R$ graded coursework may apply toward the minor.
Prerequisites to the major in anthropology ..... 9
ANTH 365. History of Anthropology ..... 3
Ethnography and 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. ETHNOLOGY (Recommended for Teaching Candidates)
ANTH 206. Introduction to Cultural Anthropology ..... 3
(If used as credit toward completion of LiberalStudies Area A (Social Sciences), then GEOG 202,Introduction to Cultural Geography, must betaken in addition.)
ANTH 365. History of Anthropology ..... 3
Ethnography and Ethnology, and/or Advanced Ethnology ..... 1420
2. ARCHEÓLOGY
ANTH 209. Introduction to Prehistoric Archeology ..... 3
*ANTH 365. History of Anthropology ..... 3
Advanced Prehistoric Archeology ..... 1420
3. PHYSICAL ANTHROPOLOGY
ANTH 208. Introduction to Physical Anthropology ..... 3
*ANTH 365. History of Anthropology ..... 3
Advanced Physical Anthropology ..... 1420ANTHROPOLOGY SUB-AREASLower DivisionANTH 200. Cultural Profiles: Introduction to Peoplesof the World, 3 units
ANTH 206. Introduction to Cultural Anthropology, 3 units
ANTH. 208. Introduction to Physical Anthropology, 3 units
ANTH 209. Introduction to Prehistoric Archeology, 3 unitsANTH 295. Selected Topics in Anthropology, 1-5 units
Upper Division
GENERAL ANTHROPOLOGY (applicable to all areas below)
ANTH 365. History of Anthropology

## ETHNOGRAPHY

ANTH 305. Cultures of the Middle East, 3 units
ANTH 306. Australia and Oceania, 3 units
ANTH 307. Sub-Saharan Africa, 3 units
ANTH 310. East and South Asia, 3 units
ANTH 311. Peoples of the Soviet Union, 3 units
ANTH 335. The North American Indian, 3 units
ANTH 336. Indians of California and Western North America, 3 units

[^5]ANTH 337. Native Peoples of Mexico, 3 units
ANTH 338. Native Peoples of Central and South America, 3 units

## ADVANCED ETHNOGRAPHY AND ETHNOLOGY

ANTH 401. Culture and Personality, 3 units
ANTH 405. Ethnographic Research Methods, 4 units
ANTH 406. Anthropological Linguistics, 4 units
ANTH 407. Religion in Anthropological Perspective, 4 units
ANTH 416. Kinship Structures and Family Organizations, 3 units
ANTH 417. Economic and Subsistence Systems, 3 units
ANTH 418. Traditional Political Systems in Contemporary Societies, 4 units
ANTH 420. Applied Anthropology and Social Change, 4 units
ANTH 421. Cultural Dynamics, 3 units
ANTH 422. Folk Literature and Arts in Anthropological Perspective, 4 units

## ADVANCED PREHISTORIC ARCHEOLOGY

ANTH 352. Method and Theory in Archeology, 3 units
ANTH 356. Old World Archeology, 3 units
ANTH 357. North American Archeology, 3 units
ANTH 359. Mesoamerican and South American Archeology, 3 units
ANTH 460. Archeological Field Methods, 4 units
ANTH 461. Seminar in Advanced Archeology, 3 units
ANTH 462. Science in Archeology, 3 units
ANTH 463. Archeological Expedition Proseminar, $1-3$ units
ANTH 494. Archeological Expedition, 4-8 units

## ADVANCED PHYSICAL ANTHROPOLOGY

ANTH 375. Human Evolution, 3 units
ANTH 376. Primate Evolution and Anatomy, 3 units
ANTH 377. Racial Variation in Human Populations, 3 units
ANTH 378. Primate Social Behavior, 3 units
ANTH 475. Background for Human Evolution, 4 units
ANTH 476. Background for Primate Evolution, 4 units
SPECIAL STUDIES
ANTH 495. Selected Topics in Anthropology, 1-5 units
ANTH 496. Senior Seminar, 1-4 units
ANTH 498. Indivicual Study, 1-4 units
ANTH 598. Individual Study, 1-4 units

## Lower Division

ANTH 200. 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 206. Introduction to Cultural Anthropology (3)
Meaning of culture, its diversity and degrees of elaboration among different peoples, organization and functioning of cultures.
${ }_{x}$ ANTH 208. Introduction to Physical Anthropology (3)
Survey of human biology and physical anthropology; vertebrațe evolution, primate evolution and behavior, human evolution and race.

ANTH 209. Introduction to Prehistoric Archeology (3)
Introduction to prehistory and culture growth; the basic theories, methods and goals of archeology; cultural and historical reconstructions based on interpretation of data recovered from worldwide archeological contexts.

ANTH 295. 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 297. Selected Topics offered during Winter Term (4)
Upper Division
ANTH 305. 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 206 or equivalent.

Study of the settlement of Australia and the islands of the Pacific Ocean in prehistoric times and survey of the living indigenous cultural groups of the area. Prerequisite: ANTH 206 or equivalent.

ANTH 307. 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 206 or equivalent.

ANTH 310. East and South Asia (3)
Investigates the cultural development of China, Japan, India and the major off-shore islands. Also considers the life-ways of various primitive and advanced cultures of this region today. Prerequisite: ANTH 206 or equivalent.

ANTH 311. 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 206 or equivalent.

ANTH 335. 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. Prerequisite: ANTH 206 or equivalent.

ANTH 336. The 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. Prerequisite: ANTH 206 or equivalent.

ANTH 337. 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: ANȚH 206 or equivalent.

ANTH 338. 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 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 206 or equivalent.

ANTH 352. 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 209 or equivalent or consent of instructor.

ANTH 356. old World Archeology (3).
Survey of major developments in 01d 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 209 or equivalent or consent of instructor.

ANTH 357. 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 209 or equivalent or consent of instructor.

ANTH 359. Mesoamerican and South American Archeology
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 209 or equivalent or consent of instructor.

ANTH 365. The 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 206; ANTH 208 and 209 desirable.

ANTH 375. 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 208 or equivalent. Recommended: ZOOL 105.

ANTH 376. 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 208 or* equivalent. Recommended: ZOOL 105.

ANTH 377. Racial Variation in Human Populations (3)
History of the study of race; survey of variation and adaptation in human populations; relationship between race and culture; race and intelligence; study of processes of race formation. (Formerly 347) Prerequisite: ANTH 208 or equivalent. Recommended: ZOOL 105.

ANTH 378. 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 208 or equivalent. Recommended: ZOOL 105.

ANTH 401. 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 and Ethnology.

ANTH 405. 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 and Ethnology and consent of instructor.

ANTH 406. 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 and Ethnology.

Introduction to anthropological approaches to the stiudy of religious systems, including magic, witchcraft, ritual, symbolism, and dynamic religious movements. Prerequisite: ANTH 206 or equivalent or consent of instructor.

ANTH 416. Kinship Structures and Family Organization (3)
Basic kinship groupings from the nuclear family through larger affiliations such as the clan and the tribe, are defined and described. Both structural and functional aspects are taken into account. Prerequisite: One course in Ethnography and Ethnology.

ANTH 417. Economic and Subsistence Systems (3)
A survey of subsistence systems, exchange patterns, and nonEuropean monetary systems. Additional consideration is given to culture classification schemes based upon various forms of economic organization. Prerequisite: One course in Ethnography and Ethnology.

ANTH 418. Traditional Political Systems in Contemporary Societies (4)

Study of the political processes and systems common in small scale societies, and the changes resulting from incorporating these societies into modern nations. (Formerly 404) Prerequisite: ANTH 206 or equivalent or consent of instructor.

ANTH 420. Applied Anthropology and Social Change (4) 1
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 206 or equivalent or consent of instructor.

ANTH 421. Cultural Dynamics (3)
Cultural stability and dynamics; with reference to geographical base, innovation, invention and technology. Prerequisite: One course of Ethnography and Ethnology.

ANTH 422. 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 206 or equivalent or consent of instructor.

ANTH 460. 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 209 or equivalent or consent of instructor. (Course may be repeated for a maximum of eight units.)

ANTH 461. Seminar in Advanced Archeology (3)
Advanced studies in archeology, including planning and direction of archeological excavations and research projects; 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 352 or consent of instructor.

ANTH 462. 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 352 or consent of instructor.

ANTH 463. 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 475. Background for 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 375 may be taken concurrently. Recommended: ZOOL 105.

ANTH 476. Background for Primate Evolution (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 376 may be taken concurrently. Recommended: ZOOL 105.

ANTH . 494 . Archeological'Expedition (4-8)
Prattical experience in archeological procedures under actual field ćpnditions. Thie 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, faunal identỉfication, microanalysis, and expedition logistics. Individual initiative is encouraged. (Formerly 433) Prerequisites: Consent of instructor, and ANTH 209 or ANTH 352.

ANTH 495. *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 496. Senjor Seminar (1-4)
Seminár 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.497. Selected Topics offered during Winter Term (4)
ANTH 498. 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 598. Individual Study (1-4)
. For students capable of independent study in one of the fields of anthropology. May be repeated for credit; topics and supervising instructor may vary. Prerequisite: Available only for graduate credit.


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: : ART
    Martin L. Camarata, M.A., Professor, Chairman
| Robert H. Colescott, M.A., Professor
                    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. Studio courses are offered in the areas of drawing, painting, sculpture, and printmaking. Courses in art history and criticism and general offerings are available.

The art curriculum prepares students for various professions, for study at the graduate level, and for teaching. The curriculum also provides, through its general education offerings, varied opportunities for the cultural development of the liberal arts student.

REQUIREMENTS FOR THE BACHELOR OF ARTS, ART
Art majors are to:
*

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete the Foundation Program in Art.
3. Complete the major of not less than 30 upper division units, which includes a program of study in fields of specialization, as developed in consultation with the major adviser. No more than 8 units of CR graded course work may apply toward the major.
4. Completion of a minor is not required.

GENQERAL REQUIREMENTS FOR THE ART MAJOR

1. A freshman or lower division transfer student will be evaluated for acceptance as a major in art, upon completion of the Foundation Program, by submitting a portfolio for faculty approval.
2. Students entering the college at the upper division level will be evaluated, through portfolio, prior to placement in courses. (The Department of Art may require students to make up deficiencies in lower division course work. Upon completion of such deficiencies the student will be required to resubmit a portfolio for faculty approval.)
3. All art majors are required, during their senior year, to submit a representative portfolio of their art work to a faculty jury which will judge the work, on a qualitative basis, for evidence of personal, conceptual, and aesthetic concerns. Subsequent participation in an exhibition of works chosen from the portfolio is a requirement for the Department's recommendation for graduation as a major in art. The Department believes that any art major can and should grow beyond the competency achieved in the required
art program and has a professional obligation to do so. The advanced art courses in all areas are offered for this purpose.
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 ARTPrerequisites to the Major - Foundation Program
    All majors must take all foundation art courses in sequence.
    ART 101. Drawing I, 3 units
    ART 102. Drawing II, 3 units
    ART 110. Design I, }3\mathrm{ units
    ART 120. Design II, 3 units
    ART 210. Art History Survey I, 3 units
    ART 211. Art History Survey II, 3 units
THE MAJOR
    All majors must choose one course from each of the following
    areas:
        Units
    Printmaking . . . . . . . . . . . . . . . . . . . . . . 3
    ART 310. Printmaking I
    ART 311. Printmaking II
    ART 312. Lithography
    Painting . . . . . . . . . . . . . . . . . . . . . . . 3
    ART 320. Problems in Painting I
    ART 321. Problems in Painting II
    ART 322. Problems in Painting III
    Sculpture . . . . . . . . . . . . . . . . . . . . . . . }
    ART 330. Sculpture I
    ART 331. "Sculpture II
    ART 332. Sculpțure III
    To complete major requirements, a student must ful-
    fill a total of 21 additional upper division units in
    studio courses as developed in consultation with major
    advisers21
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Total ..... 30

```DEGREE MINOR IN ART
Twenty-seven units as listed below:
```


## Lower Division (required)

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    ART 101. Drawing I, 3 units
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    ART 101. Drawing I, 3 units
    ART 102. Drawing II, 3 units
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ART 110. Design I, 3 units
ARTP 120. Design II, 3 units
ART 210. Art History Survey I, "3 units
ART, 211. Art History Survey II, 3 units
Upper Divivision
All art minors must choose one course from each of the following areass:

Printmaking:
ART 310. Printmaking I, 3 units
ART 311. Printmaking II, 3 units
ART 312. Lithography, 3 units
Painting:
ART 320. Problems in Painting I, 3 units
ART 321. Problems in Painting II, 3 units
ART 322. Problems in Painting III, 3 units
Sculpture:
ART 330. Sculpture I, 3 units
ART 331. Sculpture II, 3 units
ART 332. Sculpture III, 3 units
DEGREE MINOR IN AR'T HISTORY
Eighteen units, to include at least 8 units in upper division. Lower Division

ART 210. Art History Survey I, 3 units
ART 211. Art History Survey II, 3 units
Electives in Art History as approved by the minor adviser.
Uppểr Division
ART 340. Modern Art 1900-1945, 3 units
ART 341. Contemporary Art, 3 units
ART 442. Early Modern Art, 3 units
ART 443. 20th Century American Art, 3 units
Electives in Art History as approved by the minor adviser.

\section*{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
Lower Division
*ART 101. \begin{tabular}{l} 
Drawing I . . . . . . . . . . . . . . . . . . \\
ART 102. Drawing II . . . . . . . . . . . . . . . . . \\
Units .
\end{tabular}

\footnotetext{
*ART 101 cannot apply toward the concentration if used to satisfy Liberal Studies Area C requirements.
}

Upper Division
Select 15 elective upper division units . . . . . . . . 15
Total . . . . . . . . . . . . . . . . . . . 21
The Department of Art will waive upper division prerequisites for the Liberal Studies degree student.

COURSE DESCRIPTIONS
Lower Division
ART 100. Introduction to Drawing (3)
Emphasis on introduction to drawing media and process as visual language for the general student.

ART 101. Drawing I (3)
Studio practice in drawing with emphasis on a variety of media and techniques for the art major. (Formerly 100) Prerequisite: Art major/minor.

ART 102. Drawing II (3)
Continued exploration of drawing. Emphasis on spacial concepts and expressive content using a variety of media and techniques. Prerequisite: ART 101.

ART 110. 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 120. Design II (3)
Further studio exploration of plastic elements as a basis for building a theoretical and practical vocabulary for design and composition in color. Emphasis on three-dimensional design. (Formerly 130) Prerequisite: ART 110.

ART 210. Art History Survey I (3)
Survey of the major visual arts from prehistoric times to High Renaissance.

ART 211. Art History Survey II (3)
Suvey of the major visual arts from the Baroque era to major movements of the 20th Century. Prexequisite: ART 210 or consent of instructor.

ART 20.5. Selected Topics in Art (Topics to be specified in Class Schedule) (1-5)

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

ART 297. Selected Topics offered during Winter Term (4)
Upper Division
ART 301. Drawing III (3)
Emphasis on figure as compositional element. Prerequisites: ART 101, 102, 110, 120.

ART 310. 'Printmaking I (3)
Fundamental theories and practices involved in the processes of relief printing and silk screen printing. (Formerly 210) Prerequisites: ART 101, 102, 110, 120.

\section*{ART 311. Printmaking II (3)}

Téchniques of intaglio printmaking; emphasis on techniques and their relation to the graphic image. Prerequisites: ART 101, 102, 110, 120.

\section*{ART 312. Lithography (3)}

Lithographiç printmaking; emphasis on techniques and their relationship to the graphic image. Prerequisites: ART 101, 102, 110, 120.

ART 320. Problems in Painting I (3)
Form and content in painting. Painting structure and composition. Basic media, techniques, and concepts. (Formerly 220) Prerequisites: ART 101, 102, 110, 120.

\section*{ART 321*. Problems in Painting II (3)}

Painting problems with emphasis on media. Prerequisites: ART 101, 102, 110, 120.

ART 322. Problems in Painting III (3)
Painting problems with emphasis on techniques. Prerequisites: ART 101, 102, 110, 120.

ART 330. Sculpture I (3)
Exploration of modeling, its process and material. (Formerly 230) Prerequisites: ART \(101,102,110,120\).

Exploration of the use of metals in sculpture. Prerequisites: ART 101, 102, 110, 120.

ART 332. Sculpture III (3)
Exploration in carving, its process and its materials. Prerequisites: ART 101, 102, 110, 120.

ART 340. 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 341. Contemporary Art (3)
Analysis of development of style trends in the visual arts from 1945 to the present.

ART 402. Advanced Drawing (3)
Advanced problems and techniques in drawing. Emphasis on drawing concepts and individual development. May be repeated for credit. (Formerly 405) Prerequisites: ART 101, 102, 110, 120, 301.

ART 410. Advanced Printmaking (3)
Advanced problems and new techniques in printmaking. Emphasis on printmaking concepts and individual development. May be repeated for credit. (Formerly 415) Prerequisites: 2 printmaking courses chosen from ART 310, 311, 312, or equivalent.

ART 420. Advanced Painting (3)
Advanced problems and new techniques in painting. Emphasis on painting concepts and individual development. May be repeated for credit. (Formerly 425) Prerequisites: 2 painting courses chosen from: ART \(320,321,322\), or equivalent.

ART 430. Advanced Sculpture (3)
Advanced problems and new techniques in sculpture. Emphasis on sculptural concepts and individual development. May be repeated for credit. Prerequisites: 2 sculpture courses chosen from ART 330, 331,332 , or equivalent.

ART 442. 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.

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 451. Gallery Management (1)
Preparation for gallery managementship. May be repeated for credit. Prerequisite: Consent of instructor.

ART 495. Selected Topics in Art (Topics to be specified in * Class Schedule) (1-5)

Develópment of a selected topic in art. Topics will vary. Different topics may be taken for credit. Prerequisite: Consent of instructor. ,
ART 496: Senior Seminar (2)
Intensified study of the nature and problems confronting the contemporary American artist. Prerequisite: Senior standing in the major.

ART 497. Selected Topics offered during Winter Term (4)
ART 498. 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 598. Individual Study (1-4)
For post-baccalaureate 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.

\section*{BIOLOGICAL SCIENCES}

\author{
James C. Hanson, Ph.D., Professor, Chairman Steve J. Grillos, Ph.D., Professor \\ Glenn A. Hackwel1, Ph.D., Professor \\ Jay P. Christofferson, Ph.D., Associate Professor \\ Perpetuo S. Mayol, Ph.D., Associate Professor \\ Judith A. Brown, Ph.D., Assistant Professor \\ David M. Gotelli, 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 pre-professional 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:
1. 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.

BACHELOR OF ARTS DEGREE IN BIOLOGICAL SCIENCES
Prerequisites to the Major:
Required courses in the major field:
BOTY 105. Introduction to Botany, 4 units
Z00L 105. Introduction to Zoology, 4 units
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    Reqưired courses in supporting 'fields:
    CHEM 110, 111. Principles of Chemistry I, II, 10 units
    CHEM 301, 303. 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
BİOL 331. Cellular and Molecular Biology. . . . . . . 3
BIOL 332. General Genetics. . . . . . . . . . . . . . }
Course in Animal or Plant Diversity (approved by major
adviser
4
To be elected from the following: BOTY 310,
BOTY 312, BOTY 370, ENTO 300, ENTO 374, MBIO 201,
ZOOL 361, ZOOL 442, ZOOL 443, 2OOL 462, ZOOL 463,
ZOOL 464
Course in Ecology (apprqved by major adviser). . . . . 4
To be elected from the following: BIOL 363,
BIOL 365, BIOL 463
Course in Physiology (approved by major adviser) . . . 4
To be elected from the following: BIOL 422,
BOTY 420, ENTO 422, ZOOL }42
*Electives in the Biological Sciences (approved by major
adviser). . . . . . . . . . . . . . . . . . 14
Total . . . . . . . . . . . . . . . . . . . }3
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\mathrm{ 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.

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\(t\)

BOTANY CONCENTRATION:
\begin{tabular}{ll} 
BOTY 310. & Survey of Lower Plants, 4 units \\
BOTY 312. & Morphology of Vascular Plants, 4 units \\
BOTY 420. & \begin{tabular}{l} 
Plant Physiology, 4 uni,ts
\end{tabular} \\
& or
\end{tabular}

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

ENTOMOLOGY CONCENTRATION:
ENTO 300. Principles of Entomology, 4 units
ENTO 374. Insect Classification, 4 units
ENTO 422. Insect Physiology and Internal Anatomy, 4 units
ZOOLOGY CONCENTRATION: At least one course from each of the following groups:
1. ZOOL 361. General Vertebrate Zoology, 4 units ZOOL 462. Herpetology, 4 units ZOOL 463. Orinthology, 4 units zOOL 464. Mammalogy, 4 units
2. ZOOL 442. Invertebrate Zoology I, 4 units

ZOOL 443. Invertebrate Zoology II, 4 units
ENTO 300. Principles of Entomology, 4 units
ENTO 374. Insect Classification, 4 units
3. ZOOL 423. Animal Physiology

BIOL 422. General and Cellular Physiology, 4 units
Biological Science majors interested in dentistry, medicine, optometry and veterinary medicine should complete the following courses: CHEM 301, 303; CHEM 302, 304; PHYS 110; PHYS 111; ZOOL 313 and ZOOL 315 or equivalent. Additional course work for specific professions will vary with the profession; i.e., for premedical students, BIOL 422, CHEM 401, CHEM 402, CHEM 440, CHEM 441 and mathematics through calculus are recommended.

Students interested in biological laboratory occupations following the baccalaureate degree in biological sciences should complete BIOL 431; CHEM 201; MATH 160; MATH 200; MBIO 201 and MBIO 203 as part of their major.

\section*{DEGREE MINOR IN BIOLOGICAL SCIENCES}

Twenty units, to include at least 12 units in upper division.
Lower Division:
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BOTY 105. Introduction to Botany, 4 units
ZOOL 105. Introduction to Zoology, 4 units
(equivalent courses may be substituted by minor adviser)

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Upper Division:
Courses as approved by minor adviser, 12 units

Lower Division:
Units
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*BOTY, 105. Introduction to 'Botany, 4 units or

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*ZOOL 105. Introduction to Zoology ..... 4
BIOL 231. Human Genetics. ..... 2
Upper Division:
1. One course dealing with the diversity of biological organisms ..... 4
(To be selected from either Botany, Entomology, Microbiology, or Zoology.)
2. Biological Science Electives ..... 11
(Students are encouraged to select courses dealing with the physiological and ecological aspects of biology.) ..... —
- Total ..... 21
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.

\section*{COURSE DESCRIPTIONS}
\begin{tabular}{cc} 
& BIOLOGY \\
BIOL 101. Princip1es of Biology (3)
\end{tabular}

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, to gross structural levels. (Lecture, 3 hours). Concurrent enroliment in BIOL 103 required. Prerequisite: None.

\footnotetext{
* Either BOTY 105 or ZOOL 105 will satisfy the BIOL 101 and 103 requirement in the Liberal Studies program.
}

BIOL 103. Principles of Biology Laboratory (1)
Laboratory experiments, exercises, and demonstrations illustrating biological principles. (Laboratory, 3 hours) (Formerly included in BIOL 101) Concurrent enrollment in BIOL 101 required.

BIOL 231. 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) Prẹrequisite: None.

BIOL 265. Environmental Biology (2)
Basic ecological concepts as they apply to present day resource management and human environmental problems, including wildife, forest, soil, water, air, and mineral resources. Ecological aspects of air and water pollution, human population growth, pesticide use, and energy consumption. (Formerly 263) (Lecture, 2 hours; field trips) Prerequisite: None.

BIOL 295. 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 297. Selected Topics offered during Winter Term (4)
Upper Division
BIOL 331. 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 105, Z00L 105, and CHEM 110, 111 or equivalent.

BIOL 332. General Genetics (3)
Mechanisms of inheritance illustrating the role of genetics in modern biology. (Lecture, 3 hours) Prerequisite: BIOL 331 or equivalent.

BIOL 363. Ecology (4)
Basic interrelationships of plants and animals within their physical environments. (Lecture, 3 hours; 1aboratory, 3 hours; field trips) Prerequisites: BOTY 105, ZOOL 105, and CHEM 110, 111, or equivalent, and statistics or calculus. (Satisfies ecology elective for the major)

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 105, ZOOL 105, and CHEM 110, 111 or equivalent. (Satisfies ecology elective for the major)

BIOL 381. 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 105, ZOOL 105, or equivalent; BIOL 332 recommended.

BIOL 422. 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, CHEM 301, 303 or equivalent. (Satisfies physiology elective for the major)

BIOL 431. 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 432. 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 is information recorded. (Lecture, 3 hours) Prerequisite: One year college-level biology.

BIOL 433. Electron Microscopy Laboratory (2)
Practical use of the electron microscope and practice in the supporting techniques. (Laboratory, 6 hours) Prerequisite: BIOL 432 and/or consent of instructor.

BIOL 463. 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 105, ZOOL 105 or equivalent, and one semester invertebrate zoology or BOTY 414. (Satisfies ecology elective for the major)

BIOL 495. Selected Topics in Biological Sciences (Topics to be Specified in Class Schedule) (1-5)

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

BIOL 497. Selected Topics offered during Winter Term (4)
BIOL 498. 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
BIOL 598. 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 instrucfor.

\author{
BOTANY \\ Lower Division
}

BOTY 105. 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 101.

BOTY 295. 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 297. Selected Topics offered during Winter Term (4)

\section*{Upper Division}

BOTY 310. 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) Prerequisite: BOTY 105 or equivalent. (Formerly 311) (Satisfies diversity elective for the major)

BOTY 312. Morphology of Vașcular Plants: (4)
Comparatịve study of structure, development, ecology, and evolutionary importance of club mossês, horsetails, ferns, and seed plants. "(Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisite: BOTY 105 or equivalent. (Satisfies diversity elective for the major)

BOTY 350. 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 105 or equivalent.

BOTY 370. 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 105 or equivalent. (Satisfies diversity elective for the major)

BOTY 410. Plant Anatomy (4)
Microscopic study of structure and development of plant tissues with "emphasis on tissues of seed plants. (Lecture, 2 hours; laboratory, 6 hours) Prerequisites: BOTY 312 or consent of instructor.

BOTY 414. 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 310 or equivalent. Offered, alternate years.

BOTY 415. Biology of the Fungi (4)
Survey of the fungi with emphasis on form, structure, heredity, development, and identification. (Lecture, 2 hours; laboratory, 6 hours; field trips) (Formerly 315) Prerequisite: BOTY 310 or equivalent. Offeered alternate years.

BOTY 420. Píant Physiology (4)
Selected topics pertaining to metabolism, nutrition, and growth of plants. (Lecture, 2 hours; laboratory, 6 hours) Prerequisites: BOTY 105 or equivalent, and CHEM 301, 303 or equivalent. (Satisfies physiology elective for the major)

BOTY 495. 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 497. Selected Topics offered during Winter Term (4)
ENTOMOLOGY
Upper Division
ENTO 300. Principles of Entomology (4)
Slassification, control, life history, structure, ecology, and basic physiology of insects. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: Z00L 105 or equivalent. (Satisfies diversity elective for the major)

ENTO 333. 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 105 or equivalent.

ENTO 374. Insect Classification (4)
Survey of major groups of insects with classification to family level, taxonomic categories and procedures, nomenclature and literature. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: ENTO 300 or consent of instructor. (Satisfies diversity elective for the major)

ENTO 422. 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 300 and CHEM 301,303 or equivalent, or consent of instructor. (Satisfies physiology elective for the major)

ENTO 495. 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. Prerequisite: Consent of instructor.

ENTO 497. Selected Topics offered during Winter Term (4)

\section*{MICROBIOLOGY}

\section*{Lower Division}

MBIO 201. Bacteriology Lecture (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 collegelevel biology or equivalent and CHEM 110 or equivalent. (Satisfies diversity elective for the major)

MBIO 203. Bacteriology Laboratory (2)
Laboratory experiments and demonstrations to illustrate principles and techniques of bacteriology. (Laboratory, 6 hours) Prerequisite: MBIO 201 or concurrent enrollment.
*MBIO 297. Selected Topics offered during Winter Term (4)

\section*{Upper Division}

MBIO 495. 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 497. Selected Topics offered during Winter Term (4)
ZOOLOGY
Lower Division
200L 105. Introduction to Zoology (4)
Introduçtion 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 101.

ZOOL 223. Physiology (3)
Principles of functional anatomy and physiology of organ systems with special reference to human physiology. (Lecture, 3 hours) (Formerly 323) Prerequisite: Z00L 105 or equivalent. (Does not satisfy the physiology elective for the major)

200L 224. 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 223 or concurrent enrollment.

ZOOL 225. Anatomy Laboratory (2)
Gross morphology, anatomy, and histology of organ systems with special reference to human anatomy. (Laboratory, 6 hours) (Formerly included in 312) Prerequisite: Z00L 223 or concurrent enrollment.

ZOOL 295. 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.

200L 297. Selected Topics offered during Winter Term (4)
Upper Division
ZOOL 313. Vertebrate Embryology (4)
Comparative study of microanatomy and development of several representative vertebrate forms. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: ZOOL 105 or equivalent.

ZOOL 315. 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: 200L 105 or equivalent.

Z00L 361. 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 collegelevel zoology. (Satisfies diversity elective for the major)
zOOL 423. Animal Physiology (4)
A physiological approach to the evolution of vertebrate organ systems. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisites: Two years college-level biology or equivalent, and CHEM 301, 303 or equivalent. (Satisfies physiology elective for the major)

200L 425. Endocrinology (2)
A comparison of animal endocrine systems at the cell, tissue, and organ level. (Lecture, 2 hours) Prerequisites: BIOL 331 and CHEM 301, 303 or equivalent.

200L 442. Invertebrate Zoology I (4)
Structure, classification, distribution, and life histories of invertebratès. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisites: BOTY 105, ZOOL 105 or equivalent. (Satisfies diversity elective for the major)

ZOOL 443. Invertebràte Zoology II (4)
Continuation of ZOOL 442. Structure and classification distribution, and life histories of invertebrates. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisités: BOTY 105, ZOOL 105 or equivalent. ZOOL 442 recommended. (Satisfies diversity elective for the major)

200L 444. General Parasitology (3)
Parasitism with emphasis on parasites of man. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: Two years of collegelevel biology, or equivalent.

ZOOL 460. Animal Behavior (Ethology) (3)
The interaction of animals in their environment with special emphasis on individual and social behavior patterns. (Lecture, 3 hours) Prerequisite: Two years of college-level biology or consent of instructor.

ZOOL 462. 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 315 or Z00L 361 or equivalent. Offered alternate years.

Z00L 463. Ornithology (4)
Behavior, classification, economic importance, evolution, life histories, migration, and special modifications of birds. Identifícation in field and laboratory. (Lecture, 2 hours; laboratory, 6 hours or one field trip per week) Prerequisite: 200L 315 or ZOOL 361 or equivalent. Offered alternate years.

ZOOL 464. Mammalogy (4)
Anatomy, behavior, classification, distribution, economic value, evolution, and life histories of mammals. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: Z00L 315 or ZOOL 361 or equivalent. Offered alternate years.

ZOOL 495. 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 497. Selected Topics offered during Winter Term (4)

\author{
Thomas P. Barrett, M.A., Professor, Chairman \\ Wayne R. Chapin, D.B.A4, 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., Associafe 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 BA degree program are offered both during the daytime and the evening. Courses in the MBA program are offered during the evening only. 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.

\section*{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.

\section*{DEGREE OBJECTIVES}

This program is designed to he1p each student acquire:
1. A broad, liberal education.
2. A basic understanding of the operation of a business enterprise.
3. An understanding of the environment in which business exists, and of which it is a part.
4. Proficiency in analyzing, evaluating, and synthesizing managerial decisíons.
5. A degree of specialized training in a selected area of concentration.

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 two-thirds 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 onethird 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. Coursework 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:
1. Complete all college-wide requirements for the Bachelor of Arts Degree.
2. Complete prerequisites to the major.
3. Complete the major including both the business administration core and the selected area of concentration. No CR graded work is applicable to the major.
4. Complete with a grade of C or better all courses which are specified prerequisites to advanced courses in the student's major.
5. Satisfy the Division's requirement for proficiency in English. (See below)
6. Completion of a minor is not required.

\section*{RECOMMENDED LQせWER 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. "In addition, the specified prerequisites to the major, most of which are, or can be, included in the General Education program, should be completed. Elective courses should be chosen in thé following areas: behavioral sciences, economics, English, and mathematics.

\section*{DEGREE MAJOR IN BUSINESS ADMINISTRATION}

Prerequisites to the Major
(a) Included in General Education Program:

ECON 250, 251. Principles of Economics I-II, 8 units ENGL 100. English Composition, 3 units MATH 150. Finite Mathematics, 3 units; OR MATH 191, Calculus with Applications I, 3 units
MATH 161. Statistics for Decision Making, 3 units PPSYC 201. Introduction to Psychology, 3 units SOCL 101. Introduction to Sociology, 3 units
(b) Additional Requirements:

BUS 200. Introduction to Computers, 2 units
BUS 201. Computer Programming, 3 units
BUS 206. Business Law, 3 units
*BUS 211. Principles of Financial Accounting, 4 units
BUS 213. Managerial Accounting, 4 units (Students concentrating in Accounting will substitute BUS 314, Cost Analysis, 4 units) ENGL 205. Technical and Report Writing, 3 units

Thě Business Administration Core
BUS 300. Quantitative Analysis for Business Decision, 3 units
BUS 301. Organization and Environment, 4 units
BUS 322. Business Finance, 3 units
BUS 341. Basic Marketing, \(3_{\text {g }}\) units
BUS 408. Business Policy, 3 units
ECON 315. National Income Analysis, 3 units

\footnotetext{
* Some colleges teach this subject in a 2 or 3 term sequence rather than in a single course. Students attempting to fulfill this requirement at one of these colleges should complete the entire sequence prior to transfer. Students who have not completed the requirement in financial accounting prior to transfer will be required to complete BUS 211 at California State College, Stanislaus.
}

Each student will choose an area of concentration from those listed below.

\section*{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 311. Intermediate Accounting \(I\), 3 units
BUS 312. Intermediate Accounting II, 3 units
Two of the following as approved by the major adviser:
BUS 411. Advanced Accounting, 4 units
BUS 412. Auditing, 4 units
BUS 414. Income Tax Accounting, 4 units
BUS 415. Seminar in Accounting Theory, 3 units

\section*{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 421. Security Analysis and Portfolio Management, 4 units
BUS 424. Management of Financial Institutions, 4 units
BUS 425. Financial Management, 4 units

\section*{MARKETING}

Marketing is the bridge which dinks the firm to the markets it serves. Iț includes measuring and intẻrpreting 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:
\begin{tabular}{ll} 
BUS 440. & Consumer Behavior, 3 units \\
BUS 442. & Marketing Research, 3 units \\
BUS 449. & Problems in Marketing Strategy, 3 units
\end{tabular}

One of the following as approved by the major adviser:
\begin{tabular}{ll} 
BUS 443. & Sales Management, 3 units \\
BUS 444. & Industrial Marketing, 3 units \\
BUS 445. & Retailing, 3 units \\
BUS 448. & Business Logistics, 3 units
\end{tabular}

\section*{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 varizety of organizations--manufacturing firms, banks, hospitals, wholesale-retail chains, transportation firms, etc.

Course requirements are as follows:
BUS 436. Human Problems in Administration, 3 units
BUS 451. Production and Operations Administration, 3 units
BUS "455. Introduction to Management Science, 4 units
One of the following as approved by the major adviser:
BUS 405. Sample Surveys, 3 units
BUS 437. Introduction to Systems Analysis and Design, 3 units
BUS 448. Business Logistics, 3 units
BUS 452. Program Administration, 3 units
BUS 453. Simulation of Operating Systems, 4 units

Personnel Administration is the process of obtaining and maintaining the human resources of an organization. It includes manpower planining, 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 as as follows:
Four of the following as approved by the major adviser:
BUS 436. Human Problems in Administration, 3 units
BUS 461. Personnel Administration, 3 units
BUS 462. Labor Management Relations, 3 units
BUS 463. Manpower Planning, 3 units
ECON 410. Labor Economics, 3 units
DEGREE MINOR IN BUSINESS
Prerequisites to the Minor
BUS 211. Principles of Financial Accounting, 4 units ECON 250, 251. Principles of Economics I-II, 8 units

Required Courses in Minor Field
BUS 301. Organization and Environment, 4 units
Plus 9 upper division units as approved by the minor adviser.

\section*{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.

\section*{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.

\section*{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 Divison 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.

\section*{THE MASTER OF BUSINESS ADMINISTRATION}

The MBA Program provides professional education in business and adminstration 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 objectives
This program is designed to help each student acquire:
1.* Increased capacity for quick flexible adjustment to rapidly changing conditions.
2. The capacity to use information effectively at the point of decision.
3. The ability to make and execute decisions.
4. Patterns of thinking and behavior in accordance with the gradually evolving standards of professional behavior.
5. The ability to engage productively with others in a variety of organizational settings.
6. The ability to relate the activities of the organization to a broad view of economic conditions and social attitudes.
7. A foundation for continuing self-education and professional growth and development.

\section*{PROGRAM STRUCTURE}

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

The Foundation Program is intended to give the student the essence of the undergraduate major in Business Administration. Students must complete all courses in the Foundation Program before enrolling in the Advanced Program. Suitable credit will be given for prior completion of these courses or their equivalents.

The Advanced Program consists of a core of 6 required courses ( 18 units) and an area of specialization ( 12 units). No courses completed prior to achieving classified standing may be applied toward the MBA Advanced Program.

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.

\section*{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.
3. Satisfy the Division's requirement for proficiency in English. (See above)
4. Complete all requirements for the degree (Foundation Program, Advanced Program, comprehensive examination) within seven years.

\section*{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.

\section*{Unclassified Standing}

The College admits qualified applicants to unclassified standing and classifies them when eligible. Unclassified graduate students are expected to make definite and timely progress toward the achievement of classified graduate 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 courses in the MBA Advanced Program. 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:
1. Achievement on the Admission Test for Graduate Study in Business (ATGSB)--a minimum score of 450 is required.*
2. 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 examption 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.

\section*{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.

\section*{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.

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

Foundation Program (30 units)*
Required courses:
BUS 322. Business Finance, 3 units
BUS 341. Basic Marketing, 3 units
BUS 485. Quantitative Methods, 4 unit's
BUS 486. Computers in Business, 3 units
BUS 487. Principles of Accounting, 5 units
BUS 488. Organizational Behavior, 3 units
BUS 489. Business Forecasting and Planning, 3 units
ECON 315. National Income Analysis, 3 units
MATH 484. Mathematics for Business, 3 units
Advanced Program (30 units)**
Required courses (18 units):
\begin{tabular}{ll} 
BUS 508. & Business Policy, 3 units \\
BUS 509. & Seminar in Business and Society, 3 units \\
BUS 511. & Graduate Accounting Seminar I, 3 units \\
BUS 521. & Managerial Finance, 3 units \\
BUS 531. & Seminar in Management, 3 units \\
BUS 541. & Marketing Management, 3 units
\end{tabular}

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 500 level courses; not more than 10 units of the 30 -unit Advanced Program may be taken in any one field.)

\footnotetext{
*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.
}

\section*{BUS 200. 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. Computer programming techniques are introduced. (Lecture, 1 hour; laboratory, 2 hours)

BUS 201. Computer Programming (3)
A continuation of BUS 200, with emphasis on computer programming in business applications. (Lecture, 1 hour; laboratory, 4 hours) Prerequisite: BUS 200 or consent of instructor.

BUS 206. 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. 211. 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.

\section*{BUS 213. Managerial Accounting (4)}

The analysis, use, interpretation, and symthesis 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 211 or consent of instructor.

\section*{BUS 220. Personal Finance (2)}

Study of problems involved in the management of personal finances: family financial planning, credit, insurance, home ownership, investments, Social Security. (Not open to students who have completed BUS 421)

BUS 295. 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 297. Selected Topics offered during Winter Term (4)

BUS 300. 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 161, MATH 150 or 191, BUS 200.

BUS 301. 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 250, 251, PSYC 201, SOCL 101, and junior standing or consent of instructor.

BUS 306. 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 206.

BUS 311. 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 211.

BUS 312. 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 311 or consent of instructor.

BUS 314. 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, 211.

BUS 322. 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 300; 213 or 314 ; concurrent enrollment permitted.

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.

\section*{BUS 341. 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 301; concurrent enrollment permitted.

BUS 401. Readings in Búsiness 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.

BUS 405. Sample Surveys (3)
Theory and methods of sampling; design of sample surveys; probability and nonprobability samples; interpretation of survey results; survey administration; applications in auditing, marketing research, and quality control. Prerequisites: MATH 161, BUS 201.

BUS 408. 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 409. Business, Society, and the Individual (2)
Consideration of the role which the businessman and the business firm might play in alleviating some of the more pressing problems of contemporary American society. Prerequisites: Senior standing and consent of instructor.

\section*{BUS 411. Advanced Accounting (4)}

Accountịing principles applied to accounting for partnership, installment sales, consignments, insolvency, estates, trusts, and business combinations. Prerequisite: BUS 312 or consent of instructor.

BUS 412. Auditing (4)
Standards and procedures broadly applied to examination of financial statements, including a consideration of field of public accounting, professional ethics, internal controls, preparation of working papers, and audit reports. Prerequisites: BUS 311, 312.

BUS 414. 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 211.

BUS 415. Seminar in Accounting Theory (3)
History and development of accounting theory; accounting standards, conventions, and principles. Current problems, including a survey of current literature. Prerequisites: BUS 311, 312.

BUS 418. 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 201, 301, 322, 341; concurrent enrollment permitted.

BUS 421. Security Analysis and Portfolio Management (4)
A basic treatment of the problems of security 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 322.

BUS 424. 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 322 or ECON 332.

BUS 425. 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 322.

BUS 436. 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 301 or 331 or consent of instructor.

BUS 437. 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 451.

\section*{BUS 440. 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 341.

BUS 442. 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 300, 341.

\section*{BUS 443. 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 341.

BUS 444. 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 341.

BUS 445. 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 341.

Management of the physical movement of goods and the deploy-. ment of physical facilities to achieve desired flows. Considers the firm as a total system. Quantitative solutions to the problem of obtaining place and time utility. Case problems and simulation exercises. (Field trips) Prerequisites: BUS 300, 341.

BUS 449. 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 440, 442, or consent of instructor.

BUS 451. 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 300, 301.

\section*{BUS 452. 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 300, 301.

BUS 453. 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 201, 300, 301.

BUS 455. Introduction to Management Science (4)
Constrained optimization, integer, quadratic, and dynamic programming, waiting lines and simulation, applications in business. Prerequisites: BUS 201, 300, 301.

BUS 461. 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 301 or consent of instructor.

BUS 462. Labor Management. Relations (3)
Perspectives on the internal relationship between management and unionized employees. (Formerly 432) Prerequisite: BUS 461.

BUS 463. 'Manpower Planning (3)
The objectives of manpower managenent; determination of manpower needs; designing programs to provide the needed manpower; problems. and potentials. Prerequisite: BUS 461.

BUS 485. Quantitative Methods (4)
Analysis by quantitative techniques for managerial planning and decision making. The application of statistical methods to problems in business administration. Models and modeling, rational choice under uncertainty, linear and non-linear programming, etc. Prerequisite: MATH 484.

BUS 486. 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 487. 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 488. 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 489. 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 495. Selected Topics in Búsiness 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 497. Selected Topics offered during Winter Term (4)
BUS 498. 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.

\section*{Graduate}

BUS 501. 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.

BUS 508. 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 511, 521, 531, and 541.

BUS 509. 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 511. 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 521. 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 5 sin 1 . Seminar in Management (3)
Current issues and "emerging concepts in management. The rapplication of findings and concepts from the behavioral sciences and from managenent science to problems in management in business firms and other organizations. Prerequisite: Classified graduate standing.

BUS 541. Marketing Management (3)
Emphasis on managerial decision making and problem solving to formulate and, administer effective marketing activities. Marketing as a total system designéd to plan, price, distribute, and promote goods and/or services to users̀. Extensive use of case problems covering buyer behavior, product, channel of distribution, pricing, and promotion. Prerequisite: Classified graduate standing.

BUS 597. Selected Topics offered during Winter Term (4)
BUS 598. Individual Study (1-4)
For students capable of independent work and in need of advanced and specializied study. May be repeated for a total of 6 units. Prerequisites: Consent of instructor and approval of Division chairman.


\author{
Alexander J. Pandell, Ph.D., Associate Professor, Acting Chairman \\ Hobart G. Hamilton, Jr., Ph.D., Associate Professor Jimmy W. Hinkson, Ph.D., Associate Professor \\ Evan M. Thompson, Ph.D., Associate Professor John Almy, 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 consul't with his departmental adviser to determine which degree is more suitable for his career objective.

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 \({ }^{\text {for }}\) 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 çontrast 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. Examples 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 105, CHEM 401, 440, and ZOOL 313 or ZOOL 315, 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

\section*{Chemistry majors are, to:}
1. Complete the college requirements for the bachelor's degree.
2. 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 6 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 110, 111. Principles of Chemistry I-II, 10 units CHEM 201. Quantitative Analysis and Basic Instrumental Techniques, 4 units

Required courses in supporting fields:
MATH 191, 192. Calculus with Applications I-II, 6 units
or
MATH 141, 142. Calculus I-II, 8 units
Either of the following sequences:
PHYS 110, 111. Basic Physics I-II, 10 units
or
PHYS 225, 226. General Physics I-II, 8 units
PHYS 235. 236. General Physics Laboratory I-II, 2 units

THE MAJOR
Units
CHEM 301, 302. Organic Chemistry I-II . . . . . . 6
CHEM 303, 304. Organic Chemistry Lab I-II . . . . 4
CHEM 401. Physical Chemistry 1 . . . . . . . . . . 3
CHEM 403. Physical Chemistry Lab . . . . . . . . . 1
CHEM 410. Instrumental Analysis . . . . . . . . . 4
At least 6 credit hours from the following courses:
CHEM 402. Physical Chemistry II, 3 units
CHEM 403. Physical Chemistry Lab, l-2 units
CHEM 420. Advanced Inorganic Chemistry, 3 units
CHEM 421. Coordination Chemistry, 2 units
CHEM 430. Aldvanced Organic Chemistry, 3 units
CHEM 440. Biochemistry, 3 units
CHEM 441. Biochemistry Laboratory, l unit
CHEM 495. Selected Topics in Chemistry, 1-5 units
CHEM 496. Research Seminar, 1 unit
CHEM 498. Individual Study, l-4 units . . . . . . 6
Total . . . . . . . . . . . . . . . . . 24 units

Prerequisites to the Major:'
Required courses in the major field:
CHEM 110, 111. Principles of Chemistry I-II, 10 units
CHEM 201. Quantitative Analysis and Basic Instrumental Techniques, 4 units

Required courses in supporting fields:
MATH 141, 142. Calculus I-II, 8 units
MATH* 241. Multivariate Calculus, 4 units
MATH 242. Linear Algebra and Differential Equations, 4 units
PHYS 225, 226. General Physics I-II, 8 units
PHYS 235, 236. General Physics Laboratory I-II, 2 units
THE MAJOR
Units
CHEM 301, 302. Organic Chemistry I-II . . . . . . . 6
CHEM 303, 304. Organic Chemistry Laboratory I-II . . 4
CHEM 401, 402. Physical Chemistry I-II . . . . . . . 6
CHEM 403. Physical Chemistry Lab . . . . . . . . . . 2
CHEM 410. Instrumental Analysis . . . . . . . . . . 4
CHEM 420. Advanced Inorganic Chemistry . . . . . . . 3
At least 6 credit hours from the following courses:
CHEM 421. Coordination Chemistry, 2 units
CHEM 430. Advanced Organic Chemistry, 3 units
CHEM 440. Biochemistry, 3 units
CHEM 441. Biochemistry Laboratory, 1 unit
CHEM 495. Selected Topics in Chemistry, 1-5 units
CHEM 496. Research Seminar, 1 unit
CHEM 498. Individual Study, 1-4 units
PHYS 352. Modern Physics, 3 units
PHYS 445. Nuclear Physics, 2 units
PHYS 453. Thermal and Statistical Physics I, 3 units 6
Total . . . . . . . . . . . . . . . . . 31 units
One of the following sequences as approved by the student's major adviser should be taken by those students wishing an ACS accredited degree or contemplating entrance into a graduate school specifying a foreign language or substitute as an entrance requirement.

GERM 101, 102. Elementary German I-II, 8 units
MATH 200, 201. Introduction to Computers; Computer Programming, 5 units

Consists of 18 units in chemistry as approved by the department, which must include at least 8 upper division units.

\section*{LIBERAL STUDIES CONCENTRATION IN CHEMISTRY}

The following courses are required for a concentration in Chemistry within the Liberal Studies degree:

Units
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CHEM 111. Principles of Chemistry II . . . . . . 5*

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CHEM 301, 302. Organic Chemistry I-II . . . . . 6
CHEM 303, 304. Organic Chemistry Lab I-II . . . 2
Upper division electives in chemistry as
    approved by the department . . . . . . . . . 7
    Total . . . . . . . . . . . . . . . . . . . . 20 units
COURSE DESCRIPTIONS
    Lower Division

CHEM 100. 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 110. 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 111. Principles of Chemistry II (5)
A continuation of CHEM 110, emphasizing gaseous and ionic equilibria, electrochemical principles, thermodynamics, radiochemistry, and descriptive chemistry of the elements. (Lecture, 3 hours; laboratory, 6 hours) (Formerly l02-103) Prerequisite: CHEM 110.

\footnotetext{
*CHEM 110, which is prerequisite to this course, can be taken in place of CHEM 100 for those Liberal Studies students opting for the chemistry concentration.
}

CHEM 201. Quantitative Analysis and Basic Instrumental Techniques (4)

Principles and practice of volumetric, gravimetric and instrumental methods of analysis. (Lecture, 2 hours; laboratory, 6 hours) (Formerly 211) Prerequisisite: CHEM 111.

CHEM 295. 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 297. Selected Topics offered during Winter Term (4)

\section*{Upper Division}

CHEM 301. 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 enroliment in CHEM 303 required. (Formerly 321-322) Preréquisite: CHEM 111.

CHEM 30́2. Organic Chemistry II (3)
Continuatition of CHEM 301. (Lecture, 3 hours). Concurrent enrollthent in CHEM 304 required. (Formerly 322-323) Prerequisite: CHEM 301.

CHEM 303. Organic Chemistry Laboratory I (1 or 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 301 required. (Formerly 324-325) Prerequisite: CHEM 111.

CHEM 304. Organic Chemistry Laboratory II (1 or 2)
Continuation of CHEM 303: (Laboratory, 3 or 6 hours) Concurrent enrollment in CHEM 302 required. (Formerly 325-326) Prerequisite: CHEM 303.

CHEM 401. 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 402. Physical Chemistry II (3)
Continuation of CHEM 401 (Lecture, 3 hours). Concurrent enrollment in CHEM 403 required. (Formerly 462) Prerequisites: MATH 142, CHEM 401.

CHEM 403. Phýsical Chemistry Laboratory (1 or 2)
Laboratory applications of the principles of physical chemistry. (Laboratory, 3 or 6 hours). (Formerly 403 and 404) Prerequisites: CHEM 401 and concurrent enrollment in CHEM. 402 if the course is taken for 2 units. CHEM 401 only, if the course is taken for 1 unit.

CHEM 410. 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 ionexchange chromatography. (Lecture, 2 hours; laboratory, 6 hours). (Formerly 412) Prerequisites: CHEM 201, 302 and 401 or consent of instructor.

CHEM 420. 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 401 or consent of instructor.

CHEM 421. Coordination Chemistry (2)
Structure, bonding, spectra and reactions of representative metal complexes. (Lecture, 2 hours). Prerequisite: CHEM 420.

CHEM 430. Advanced Organic Chemistry (3)
Chemical equilibrium in organic systems, reaction kinetics, reactive intermediates, determination of reaction mechanisms, photochemistry, molecular orbital theory, modern synthetic reactions. (Lecture, 3 hours). (Formerly 427) Prerequisite: CHEM 302.

CHEM 440. Biochemistry (3)
The chemistry, metabolism, enzymology and energy relationships of important biological compounds and processes. (Lecture, 3 hours). (Formerly 480) *Prerequisite: CHEM 302 or consent of instructor.

CHEM 441. Biochemistry Laboratory (1)
An introdüction to biochemical techniques including chromatography, enzyme purification, spectrophotometry, and fluorimètry. (Laborátory, 3 hours) Prerequisite: Concurrent enrollment in CHEM 440 or consent of instructor*:

CHEM 495. 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. Prerequisife: Consent of instructor.

CHEM 496. Research Seminar (1)
The presentation of research results or topical literature surveys by students and visiting scientists. Prerequisite:
Senior standing or consent of instructor.
CHEM 497. Selected Topics offered during Winter Term (4)
CHEM 498. 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 598. Individual Study (1-4)
For qualified post-baccalaureate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

\title{
CHILD DEVELOPMENT
}

\section*{Advisory Committee}

Max C. Norton, Professor of Communication Science, Chairman
James C. Cole, Professor of Education Lee A. Elliott, Associate Professor of Psychology

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:
1. To work in Child Development Centers preparatory to the awarding of the certificate for supervision of Child Development Centers.
2. To constitute a basis for advanced study leading to specialized credentials in Early Childhood Education and Learning Disabilities.
3. To provide an area of concentration for the Liberal Studies degree prerequisite, for the Multiple Subject Teaching Credential. (See Liberal Studies).

\section*{REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE IN CHILD DEVELOPMENT}
1. Complete General Education requirements for the Bachelor of Arts degree.
2. 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.
3. Complete the major requirements of not less than 34 units of approved upper division course work.
\begin{tabular}{|c|c|c|}
\hline PSYC 313 & Human Development, 3 units & F, \\
\hline \({ }^{\text {PPSYC }} 316\) & Intro to Psychological Testing, 3 units & G, \\
\hline PSYC 317 & Early Cognitive Bevelopment, 3 units & G, \\
\hline PSYC 370 & Intro to Learning Motivation, 3 units & \\
\hline SPCH 301 & Language \& Speech Development, 3 units & \\
\hline SPCH 472 & Developmental Assessment, \(\hat{3}\) units & A, F, G \\
\hline
\end{tabular}

ELECTIVES - 16 units from the following courses.
No more than 6 units of electives may be earned in a given curricular objective module.*
ENGL 462. Children's Literature, 3 units ..... D
PHED 420. Motor Learning, 3 units ..... F
PHED 440. Kinesiology, 3 units ..... E
PHED 450. Physiology of Exercise, 3 units ..... E
PSYC 312. Human Development Laboratory, 1 unit ..... F, I
PSYC 330. Social Psychology Laboratory, l unit ..... G
PSYC 331. Intro to Social Psychology, 3 units ..... G
PSYC 332. Introduction to Personality, 3 units ..... H, I
PSYC 335. Intro to Study of Abnormal Behavior, 3 units ..... H, I
PSYC 415. Learning Disabilities, 3 units ..... H, I
PSYC 472. Expeximental Analysis of Behavior, 3 units G, H, I
SOCL 315. The Family, 3 units ..... G
SPCH 300. Phonetics, 3 units ..... A, D
SPCH 340. Oral Interpretation of Children's Literature, 3 units ..... A, D
SPCH 361. Introduction to Communication Disorders, 3 units ..... A
SPCH 391. Speech Activities, 2 units ..... A
SPCH 401. Structural and Psycholinguistics, 5 units ..... A

\footnotetext{
* Curricular Objective Modules
}

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
In the Core Program and Electives listed above, the Curricular Objective Modules applicable to each of the courses are noted.

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:
PSYC 202. Introduction to Psychological Methods, 3 units
PSYC 313. Human Development, 3 units
PSYC 317. Early Cognitive Development, 3 units
SPCH 472. Developmental Assessment, 3 units
Electives:
PSYC 312. Human Development Laboratory, 1 unit
PSYC 370. Introduction to Learning and Motivation, 3 units PSYC 415. Learning Disabilities, 3 units
PSYC 472. Experimental Analysis of Behavior, 3 units
SPCH 361. Introduction to Communication Disorders, 3 units
*SPCH 401. Structural and Psycholinguistics, 5 units

\footnotetext{
* Cannot apply toward the concentration if used to satisfy Liberal Studies Area D requirements.
}

DRAMA

\author{
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 practitionefs 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 38 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 200.- Basic Performance, 1 unit
DRAM 210. Basic Theatre Management, 1 unit
DRAM 221. Basic Makeup, 1 unit
DRAM 222. Basic Lighting, 1 unit
DRAM 223. Basic Technical Production, l unit
DRAM 224. Basic Costuming, 1 unit
DRAM 230. Theatre Workshop I, 2 units
DRAM 250. Beginning Acting, 3 units
THE MAJOR
Units
DRAM 300. Acting . . . . . . . . . . . . . . . . . . . 4
DRAM 315. Junior/Senior Forum . . . . . . . . . . . . . 4
DRAM 320. Stagecraft . . . . . . . . . . . . . . . . . 4
DRAM 341. Dramatic Theory and Criticism . . . . . . . . 3
DRAM 351. History of Theatre I . . . . . . . . . . . . 3
DRAM 352. History of Theatre II . . . . . . . . . . . . 3
DRAM 430. Theatre Workshop II . . . . . . . . . . . . . 6
DRAM 460. Directing . . . . . . . . . . . . . . . . . . 4
DRAM 461. Senior Project . . . . . . . . . . . . . . . 4

One of the following as recommended by the major adviser:
\begin{tabular}{ll} 
DRAM 321. Makeup, 3 units \\
DRAM 322. Stage Lighting, 3 units & \\
DRAM 323. Scene Design, 3 units \\
DRAM 324. Costuming, 3 units . . . . . . . . . . . . 3
\end{tabular}

Total . . . . . . . . . . . . . . . . . . . . 38
Elective Courses
In consultation with the major adviser, one or more of the following elective courses may be selected to supplement areas of major interest:

DRAM 295-495. Selected Topics in Drama, 1-5 units
DRAM 325. Costume Design, 3 units
DRAM 353. Contemporary Theatre, 3 units
DRAM 400. Advançed Acting, 4 units
DRAM 455. American Theatre, 3 units
DRAM 498-598. Individual Study, 1-4 units

\section*{LIBERAL STUDIES CONCENTRATION IN DRAMA}

Twenty-one or twenty-two units as approved by a drama adviser.

\section*{Lower Division}

DRAM 210. Basic Theatre Management . . . . . . . . . 1
*DRAM 230. Theatre Workshop I . . . . . . . . . . . . . l
DRAM 250. Beginning Acting . . . . . . . . . . . . . . 3
Two courses selected from the following:
DRAM 221. Basic Makeup, 1 unit
DRAM 222. Basic Lighting, 1 unit
DRAM 224. Basic Costuming, 1 unit . . . . . . . . . . 2

\section*{Upper Division}

DRAM 320. Stagecraft . . . . . . . . . . . . . . . . . 4
DRAM 460. Directing . . . . . . . . . . . . . . . . . 4
Two courses selected from the following:
DRAM 300. Acting, 4 units
DRAM 321. Makeup, 3 units
DRAM 322. Stage Lighting, 3 units
DRAM 324. Costuming, 3 units . . . . . . . . . 6-7
Total . . . . . . . . . . . . . . . . . . 21-22

\footnotetext{
*Cannot apply toward the concentration if used to satisfy Liberal Studies Area C requirements.
}

\section*{COURSE DESCRIPTIONS}

Lower Division
DRAM 101. 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 200. Basic Performance (1)
Exercise in vocal and pantomimic technique for the beginning performer. Theatre games and improvisation designed to develop the human instrument.

DRAM 210. Basic Theatre Management (1)
An introduction to the methods of operating a theatre as a business; publicity, box office, and house management.

DRAM 221. Basic Makeup (1)
An introduction to the practice of making up for the stage.
DRAM 222. Basic Lighting (1)
Antintroduction to the practice of lighting the stage; basic electricity, creation of effects, and operation of current devices.

DRAM 223., Basic Technical Production (1)
An introduction to the techniques of backstage operation.
DRAM 224. Basic Costuming (1)
An introduction to the practice of costuming a play; basic sewing techniques, and methods of reproducing period costumes.

DRAM 230. Theatre Workshop I (1-2)
Practice in all phases of theatrical production for public performance. May be repeated for credit once each semester. DRAM 250. Beginning Acting (3)

Vocal training and exercise in expressive movement. Basic steps in characterization; script analysis, and rehearsal techniques. (Formerly 200 \& 250) Prerequisite: DRAM 260 or consent of instructor.

DRAM 295. Selected Topics in Drama (Topics to be specified in Class S̊chedule) (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 297. Selected Topics offered during Winter Term (4)
Upper Division
DRAM 300. 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 250 or consent of instructor.

DRAM 305. 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 305)

DRAM 315. Junior/Senior Forum (1)
Weekly colloquium for junior and senior drama majors. Discussion and analysis of problems in current play production and departmental projects. Performance critiques. May be repeated for a maximum of 4 units credit. Prerequisite: Standing as a junior or senior drana major, or consent of instructor.

DRAM 320. 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 222 and 223, or consent of instructor.

DRAM 321. Makeup (3)
Principles and practice in the art of theatrical makeup. (Formerly 309) Prerequisite: DRAM 221 or consent of instructor.

DRAM 322. Stage Lighting (3)
Theory and practice in the art of designing effective stage lighting. Prerequisites: DRAM 320 and consent of instructor.

DRAM 323. Scene Design (3)
Principles and practice in the techniques of creating effective scenery for the stage. Prerequisites: DRAM 320 and consent of instructor.

DRAM 324. Costuming (3)
Principles and practice in the art of theatrical costuming. (Formerly 306) Prerequisite: DRAM 224 or consent of instructor.

DRAM 325. Costume Design (3)
Fundamentals of costume design and history of costume periods. (Formerly 307) DRAM 324 recommended.

DRAM 341. Seminar in Dramatic Theory and Criticism (3)
Investigation of dramatic and theatrical works as art forms. Introduction to methods of critical analysis.

DRAM 351. History of Theatre I (3)
Historical analysis of theatre from its primitive origins through the neo-classic period in France. (Formerly 421 \& 422)

DRAM 352. 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 353. Çontemporary Theatre (3)
Historical analysis of the theatre since World War II. Emphasis on recent developments.

DRAM 400. 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 300 and consent of instructor.

DRAM 430, Theatre Workshop II (2)
Advanced practice in all phases of theatrical production for public performance. May be repeated for credit once each semester. Prerequisite: Consent of instructor.

DRAM 455. American Theatre (3)
Historical analysis of theatre and drama in the United States from Colonial times to the outbreak of World War II.

DRAM 460. 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 461. 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 495. 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 497. Selected Topics offered during Winter Term (4)
DRAM 498. 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 598. Individual Study (1-4)
For post-baccalaureate 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.

\section*{ECONOMIC'S}

Frederick E. Kottke, Ph.D., Professor, Chairman William Dale Crist, Ph.D., Associate Professor
\({ }^{\text {'Yin-Po Lee, Ph.D., Associate Professor }}\)
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. 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 pre-professional base for the prospective business administration major enabling him to satisfy vocational objectives in government , buisiness, and/or industry.

The College also offers the degree Bachelor of Arts, Social Sciences. The student seeking this degree may select his interdepartmental major in economics and two other disciplines within the social sciences. (For further information, see Social Sciences.)

\section*{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.
3. 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 250, 251. Principles of Economics I-II, 8 units
Recommended courses in supporting fields:
Course work in mathematics as recommended by major adviser.
THE MẢJOR
A minimum of 24 upper division units in economics including a course in microtheory and macrotheory (ECON 420 and 400), Quantitative Analysis (ECON 320), Senior Seminar (ECON 496), and at least one course each from four of the areas of specialization:
1. Money and Banking
2. Economic Theory and Doctrines
3. Labor Economics
4. International Economics
5. Public Finance and Fiscal Policy
6. Economic History
7. Quantitative Economics

\section*{DEGREE MINOR IN ECONOMICS}

Fifteen units approved by the minor adviser are required, including at least 12 units in upper division courses.

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)
ECON 250. Principles of Economics I, 4 units
ECON 251. Principles of Economics II, 4 units
ECON 295. Selected Topics in Economics, 1-5 units
ECONOMIC THEORY AND DOCTRINES
ECON 315. National Income Analysis, 3 units
ECON 400. Intermediate Theory (Macroeconomics), 3 units
ECON 401. Economic Thought, 3 units
ECON 420. Intermediate Theory (Microeconomics), 3 units
MONEY AND BANKING
ECON 332. Money and Banking, 3 units
pUBLIC FINANCE AND FISCAL POLICY
ECON 454. Public Finance and Fiscal Policy, 3 units
ECON 455. Taxation and the American Economy, 3 units

\section*{LABOR ECONOMICS}

ECON 410. Labor Economics, 3 units
INTERNATIONAL ECONOMICS
ECON 405. Comparative Economic Systems, 3 units
ECON 440. Economic Development, 3 units
ECON 441. International Trade, 3 units
ECON 442. Soviet Economics, 3 units
ECON 443. International Economic Policies, 3 units
ECON 445. Economic Planning, 3 units

ECONOMIC HISTORY
ECON 415. Economic History of the United States, 3 units ECON 416. Economic History of Europe, 3 units

QUANTITATIVE ECONOMICS
ECON 320. Quantitative Analysis I, 4 units
ECON 321. Quantitative Analysis II, 4 units
ECON 430. Mathematical Economics I, 3 units
GENERAL COURSES
ECON 460. Urban Economics, 3 units
ECON 495. Selected Topics in Economics, 1-5, units
COURSE DESCRIPTIONS
Lower Division
ECON 250.* Principles of Economics I (4)
Macroeconomics; scope, method, economic resources, monetary system, income determination, economic stability-instability, public finance.

ECON 251. Principles of Economics II (4)
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 295. 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 297. Selected Topics offered during Winter Term (4)
Upper Division
ECON 315. 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.

Measurement and analysis of economic data, statistical inference, simple and multiple regression theory and its application, building of econometric models.

ECON 321. Quantitative Analysis II (4)
Application of basic research tools and techniques, analysis of economic relationship, measurement and analysis of economic and business change.

ECON 332. 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. Prérequisite: Economic Principles or consent of instructor.

ECON 400. Intermediate Theory (Macroeconomics) (3)
Macroanalysis; income levels, expenditures, prices, and employment; application to depression and inflation. Prerequisite: Economic Principles or consent of instructor.

\section*{ECON 401. 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 405. Comparative Economic Systems (3)
Capitalism and alternative economic systems; differences and comparative performance. Prerequisite: Economic Principles or consent of instructor.

\section*{ECON 410. 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.

ECON 415. 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 416. 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 420. 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 430. Mathematical Economics I (3)
Static analysis; comparative-static analysis; optimization problems, input-output analysis; linear programming and game theory. Prerequisite: Economic Principles or consent of instructor.

ECON 440. Economic Development (3)
Economic development of contemporary less developed countries; trade, agriculture, industry, education and industrial development problems; economic theories, and policy trools for case studies. Prerequisite: Economic Principles or consent of instructor.

ECON 441. 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 442. Soviet Economics (3)
Institutions and operating principles of the Soviet planned economy; economic performance to present; prospects for future.

ECON 443. 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 systerns. Prerequisite: Economic Principles or consent of instructor.

Structure, methodology, and application of economic planning; decentralized vs. centralized organization of economic activity; macroeconomic planning models. Prerequisite: Economic Principles or consent of instructor.

ECON 454. 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 455. 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 460. 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 495. 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.

ECON 496. 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 497. Selected Topics offered during Winter Term (4)
ECON 498. 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.

\author{
EDUCATION: \\ Richard V. Jones, Jr., Ed.D., Professor, Chairman Jämes C. Cole; Ed. D., Professor Charles R. Farrar, Ed.D., "Professor William F. McClintock, Ph.D., Professor Haig A. Rushdoony, Ed.D., Professor Lorna M. Swain, Ed.D., Professor Joseph W. Corbin, Ed.D.; Associate Professor Edward R. Credell, Ph.D., Associate Professor James R. Hoyt, Ed.D., Associate Professor Jack A. Graves, Ed.D., Associate Professor R. J. Moriconi, Ed.D., Associate Professor Lloyd R. Thompson, Ed.D., Associate Professor Priscilla R. Smith, Ed.D., Associate Professor Roy Y. Yasui, Ph.D., Assocịate Professor Ophelia Boswell, Lecturer in Education
}

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 schooll teaching, school supervision, and school counseling. Those studenṭs 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.

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 ctedentials. 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 education 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 on Teacher Preparation and Licensing in fulfillment of certification regulations.*

\footnotetext{
*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 crędentials whenever revisions are reported to it in the California Administrative Code, Title 5, Education, or by other official notifications.
}

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).

\section*{I. MULTIPLE SUBJECT CREDENTIAL (ELEMENTARY TEACHING):}
1. Requirements for a Multiple Subject Credential at California State College, Stanislaus, issued for life, 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 postbaccalaureate program.
1.4 Two years of teaching experience in California public schools under standard certification.
2. Advisement. Upon admission to the College, the student needs to plan a program or 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 science, arts and humanities, and English-speech. At California State College, Stanislaus, the Liberal Studies degree program includes this requirement plus an area of concentration of 20 units in one area.

\footnotetext{
* The Commission on Teacher Preparation and Licensing has approved the National Tea"chers Exam, Common Area, for this test. The test is given at the Collẻge in November, January, April and July. Details may be qbtained from the Testing Officer, Office of Student Services, California State, College, Stanislaus.
}

Hence, by completing the Liberal Studies degree, the student meets the academic requirements of the law, completes most of a standard major in an academic area, and avoids the risk* of "attempting and failing the Commission's équivalency 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 compliments their professional goals, e.g., child development for early childhood education, or a single subject for upper grade teaching.
"2.4 Other degree majors who plan to take the Commission approved test should plan their general education keeping the required Liberal Studies areas of required competency in mind.
II. SINGLE SUBJECT CREDENTIAL (SECONDARY TEACHING):
1. Requirements for a Single Subjèct Credential at California State College, Stanislaus, issued for life, include the following:
1.1 Completion of a B.A. degree, with a major in the area the student is planning to teach.

NOTE: As of this writing, no degree programs, statewide, have been approved as waivers for the State approved test; nor have the State \(s^{7}\) appròved tests been Geveloped. Therefore, students are advised to check with the Division of Education for the most current information.

\section*{or}

Completion of any bacicalaureate degree and a passing score on a State Approved Single Subject test in one or more of the following areas: (See note above).
1. English
2. Physical Science
3. Natural Science
4. Math

\footnotetext{
* 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.
}
\[
\left.\begin{array}{l}
\text { 5. Social Science } \\
\text { 6.. History } \\
\text { 7. Industrial Arts } \\
\text { 8. Government } \\
\text { 9. Physical Education } \\
\text { 10. Business } \\
\text { 11. Music } \\
\text { 12. Art } \\
\text { 13. Home Economics } \\
\text { 14. Foreign Language } \\
1.2 \text { Completion of an approved Professional Education Program } \\
\\
\quad \text { of } 30 \text { semester units. } \\
1.3
\end{array} \begin{array}{l}
\text { Completion of an approved } 30-s e m e s t e r ~ u n j t ~ p o s t-~
\end{array}\right]
\]
III. ADMISSION TO PROFESSIONAL EDUCATION:

All students interested in teaching credentials should contact the Coordinator of Credentials in the Division of Education office early in their academic career.
1. Students must apply and be accepted into a Credential Program prior to enrolling in professional education required courses.
2. Application procedures for admission into a Credential Program include: an interview; letters of recommendation; transcripts (GPA minimum overall of 2.25 required; Single Subject Credential applicants also need a 2.50 average in the teaching major); a statement of intent emphasizing experience with students; and a covering application form. These forms are available in the office of the Division of Education from the Credentials Secretary.
3. Students planning to complete the Professional Education course work within four years, must seek admission to the Credential Program no later than the first semester of the junior year.
4. Students planning to complete the Professional Education requirements after graduation must seek admission no later than the last semester of their senior year.
5. Applications should be filed with the Division of Education no later than the following deadlines:
\begin{tabular}{|c|c|c|}
\hline Semester & Deadline & Expect Notification \\
\hline & October 31 & \\
\hline \begin{tabular}{l}
Spring 1975 \\
Fall 1975
\end{tabular} & October 31, 1974 March 1, 1975 & \begin{tabular}{l}
November \\
April
\end{tabular} \\
\hline
\end{tabular}
IV. PROFESSIONAL EDUCATION REQUIRED PROGRAM:
1. Multiple Subject Credentials: (preliminary credential)

EDUC 301. Foundations of Elementary Education . . . . 3
EDUC 312. Elementary Curriculum \& Instruction I . . . 3
EDUC 313. Elementary Curriculum \& Instruction II . . 3
EDUC 325. Reading Instruction in the Elementary
School
3
Total . . . . . . . . . . . . . . . . . . 12
*EDUC 381. Elementary School Student Teaching I . . . 4
*EDUC 481. Elementary School Student Teaching II . . . 8
Total . . . . . . . . . . . . . . . . . . 12
Total units required . . . . . . . . . 24
- Bercommended Professional Education Sequence--Two Yèar:

First Year:

Fall
EDUC 325
Winter Term
Elective
Spring
EDUC 301
EDUC 312
- Second Year:

EDUC 313
EDUC 381
EDUC 481
Elective

Recommended Sequence--One Year:
\begin{tabular}{lcc} 
Fall. & Winter \\
\begin{tabular}{l} 
EDUC 301
\end{tabular} & \begin{tabular}{c} 
Terni \\
EDUC 312
\end{tabular} & \begin{tabular}{c} 
Spring \\
EDUC 481 \\
EDUC 313
\end{tabular} \\
EDUC 325 &. &
\end{tabular}

\footnotetext{
*Prerequisites for final student teaching assignment: (a) completion of Liberal Studies basic areas or passing score on the Commission's, equivalency test; (b) maintenance of a GPA of 2.5 in Professional Education and academic work while admitted to Credential Program; (c), a minimum of six units in Professional Education, approved by the assigned Education Advisor.
}
2. Single Subject Credentials: (Preliminary Credential)
- EDUC 302. Foundations of Secondary Education ..... 3
EDUC 315. The Secondary School Program ..... 3
EDUC 316. Curriculum \(\&\) Instruction: Selected Subjects)
or EDUC/PE 319 Curric. \& Instr: Physical Education ..... )
or EDUC 320/ENGL 460 Curric \(\&\) Instr: English ..... ) 3
or EDUC 318. Curriculum \(\&\) Instruction: Art ..... )
EDUC 347. Reading in Secondary Schools ..... 3
Total ..... 12
EDUC 382. "Secondary School Student Teaching I ..... 4
*EDUC 482. Secondary School Student Teaching II ..... 8
        or*EDUC 486. Secondary School Student Teaching
Total ..... 12
Total units required ..... 24Recommended Professional Education Sequence--Two Year:First Year:
\begin{tabular}{lll}
\(\frac{\text { Fall }}{\text { EDUC } 315}\) & Winter \(\frac{\text { Term }}{\text { Elective }}\) & \begin{tabular}{l} 
Spring \\
EDUC 302 \\
EDUC 347
\end{tabular}
\end{tabular}
Second Year:
EDUC \(316 \quad\) Elective \(\quad\) EDUC 482

EDUC 302 EDUC 347

EDUC 482
Recommended Professional Education Sequence--One Year:
\begin{tabular}{|c|c|c|}
\hline Fall & Winter Term & Spring \\
\hline EDUC 302 & EDUC 382 & EDUC 482 \\
\hline EDUC 315 & or & Elective \\
\hline EDUC 347 & Elective & or \\
\hline EDUC 316 & & EDUC 486 \\
\hline
\end{tabular}

\section*{V. FIFTH YEAR REQUIREMENTS: (Life Credential)}
Students may choose to complete either no Professional Education course work within the four-year baccalaureate program,

\footnotetext{
* Prerequisites for final student teaching assignment: (a) completion of Liberal Studies basic areas or passing score on the Commission's equivalency test; (b) maintenance of a GPA of 2.5 in Professional Education and academic work while admitted to Credential Prograñ; (c) a minimum of six units in Profes'sional Education, approved by the assigned Education Advisor.
}
part of their Professional Education, or all of their Professional Education program. All students, however, must complete a total of 30 semester units, post B.A./B.S., in order to qualify for a life credential.
1. In order to be recommended for a Life Credential through California State College, Stanislaus, students are required to complete the following course work during the fifth year:

Mul̦tiple Subject Credential (issued for life)
EDUC 412. Seminar: Diagnostic Teaching . . . . . . 3
EDUC 484. Seminar: Analysis \& Strategies of Teaching . . . . . . . . . . . . . . . . 3 Electives, by advisement . . . . . . . . 24

Total . . . . . 30
Single Subject Credential (issued for life)
EDUC 484. Seminar: Anallysis \& Strategies of Teaching3

Selected course in Curriculun \(\xi\) Instruction 3
(e.g., EDUC 412, EDUC 420)

Electives, by advisement . . . . . . . . 24
Total . . . . . 30
2. Students who have completed no Professional Education will enrolil in the Professional sequence outlined in IV, 1 or 2 above, plus the six units of fifth year Professional Education.
3. Students who complete part of the Professional Education sequence will complete the total program, plus the fifth year requirements.
4. Students who have completed all Professional course work within their four-year program, must complete the six units of Professional Education plus 24 units of electives.

> 4.1 Electives may include work toward academic or professional M.A. degrees and specialist or advanced credentials.

\section*{MASTER OF ARTS IN EDUCATION}

The Master of Arts in Education is designed to meet the professional growth needs of teachers. Course work is offered late afternoons and evenings. Concurrent programming for advanced credentials is offered. The masters program may be completed in
one of three areas of specialization: (1) Curriculum \(\mathcal{G}\) Instruction (Elementary, Secondary, and Early Childhood Education); (2) Supervision \(\&\) Administration; and (3) School Counseling. The program requires each candidate to complete one of the following: a thesis, a 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 múst 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:
1. Completed CSCS Application Form (Admissions \& Records Office).
2. A Declaration of Intent (to pursue the M.A. Program).
3. Two letters of recommendation from (1) a supervisor, (2) a college professor.
4. A vita or resume which summarizes the candidate's educational background and professional experience.
5. Transcripts from all colleges attended.
6. A recent snapshot.

Upon the completion of approximately eight semester units of course work and the Graduate Record Examination, the pre-candidate will be re-evaluated 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. Listed below are course requirements for each of the three areas of specialization in the M.A. Program. 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 \(501,502,503,504\)
Required: EDUC 505,506, and \(9-15\) semester units in
Electives on advisement, incluction
Eltaling thesis or project

One from: EDUC 501, 502, 503, 504
Required: EDUC 505, 506, plus \(16-20\) semester units in Counseling and related areas
Electives on advisement
Supervision \& Administration
One from EDUC 501, 502, 503, 504
Required: EDUC 505, 506, plus 13 semester units in Supervision - Administration and related areas (Completion of at least 12 semester umits in the student's academic major is required for the supervision credential.)
Electives on advisement.

\section*{COURSE DESCRIPTIONS \\ Lower Division}

EDUC 100. 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 repeatêd for a total of 3 units.

EDUC 200. 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. Prerequisite: Medical clearance must be obtained prior to public school observation.

EDUC 295. 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 297. Selected Topics offered during Winter Term
UPPER DIVISION
EDUC 300. 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: Junior standing, medical clearance, and consent of instructor.

EDUC 301. 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 200 \& 300 recommended.

EDUC 302. Foundations of Secondary Education
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 \(200 \& 300\) recommended.

\section*{EDUC 303. 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 312. Elementary Curriculum \& Instruction I (3)
Introduction to the skill subject of language arts and mathematics. Emphasis will be on the communication skills of speaking, listening, reading, and writing in the elementary school. There will be major emphasis given to developing 'skills for the teaching of mathematics. Prerequisites: Consent of instructor, admission to credential program.

EDUC 313. Elementary Curriculum \& Instruction II (3)•
Teaching concepts and applications of social studies and science in grades K-9; instructional planning, demonstrations, and materials based on modern strands and techniques. Prerequisite: EDUC 301 or equivalent, or consent of credential adviser.

EDUC 315. The Secondary School Program (3)
Introduction to teaching in secondary schools (grades 7-12). 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 301 and consent of credential adviser.

EDUC 316. Curriculum \& Instruction: *Selected Subjects (3)
Preparation for tedching 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 301 and consent of credential adviser.

BUĆ 317. Secondary Curriculum \& Instruction: Social Sciences (3)
Contemporary trends in social studies education. Curriculum development, selection, and organization of materials and procedures for the secondary school. (Formerly 454) Prerequisite: Consent of credential adviser.

EDUC 318. Curriculum \& Instruction: Art (3)
Contemporary trends in art education. Curriculư development, selection and organization of materials and procedures for the secondary school. Field-observations. (Formerly 452) Prerequisites: Admission to student teaching and consent of credential adviser.

EDUC 319. Curriculum \& Instruction: Physical Education (3)
Preparation for teaching physical education in the secondary schóols. Current trends and practices, instructional materials and technirques. Prerequisite: EDUC 302 or equivalent, consent of credential adviser or teaching experience. (Same as PHED 319).

EDUC 320. Curriculum \& Instruction: English (3)
Contemporary trends in English education. Curriculum development, selection, and organization of materials and procedures for the secondary school. Field observations. (Formerly 453). Prerequisite: Consent of credential adviser or teaching experience: (Same as ENGL 461).

EDUC 321. Curriculum \(\&\) Instruction: Foreign Language (3)
Current practices in modern foreign language instruction, with 'emphasis' on laboratory procedures and the audio-lingualvisual approaches. (Formerly 451) Prerequisite: Consent of credential aduiser or teaching experience.
EDUC 325. Reading Instrucțion In the Elementary School
Includes an understanding of the principles and practices of reading ( \(\mathrm{K}-6\) ) 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.

Use of libraries, instructional materials centers, and audiovisual materials and equipment. Preparation and evaluation of instructional materials. (Formerly 436) Prerequisite: Admittance to credential progran or teaching experience.

EDUC 347. 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 381. E1ementary School Student Teąching 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 301 or equivalent, and one curriculum course. (May be taken concurrently).

EDUC 382. 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 400. 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 410. Improving Reading in the Elementary School
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. Designed for practicing teachers. (Formerly 435) Prerequisites: Teaching experience and consent of instructor.

Methods of diagnosing student difficulties and prescribing remediation in terms of instruction and curriculum. Performance based instruction evaluation. Prerequisite: EDUC 481 or 482 or equivalent.

EDUC 420. 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 422) Prerequisite: Upper division standing.

EDUC 421. Outdoor Education
Introduction to outdoor teacher education, with appropriate teaching procedures and instructional materials. Includes one weekend directed outdoor school field experience. (Formerly 434) Prerequisite: One curriculum course.

EDUC 423. Principles of Early Childhood Education
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 424. Reading Instruction in the Primary Grades (2)
Emphasiș" on all aspects of reading readiness, including methods and materials; techniques of beginning reading, including language experience. (Formerly 437) Prerequisite: EDUC 325-or 410, or equivalent, or consent of instructor.

EDUC 425. Reading Instruction In the Intermediate Grades (2)
Emphasis on reading to learn, particularly reading-study skills; individualized instruction; exterision of reading concepts. (Formeŕly 438) Prerequisite: EDUC 325 or 410 , or equivalent, or consent of instructor.

EDUC 430. Health \& P.E. in Elementary Schools
Purposes, materials, activities, and techniques applicable in elementary school health and physical education. Prerequisite: EDUC 301 , or equivalent, or consent of instructor.

EDUC 481. 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 381 and two curriculum courses (one may be taken concurrently).

EDUC 482. 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 382, or equivalent, and consent of credential adviser.

EDUC 483. Student Teaching, Outdoor Education (2)
Directed observation-participation and student teaching of sixth graders for one school week out-of-doors at an selected campsite; includes on-campus pre-outdoor and post-outdoor teaching meetings. (Formerly 444) Prerequisites: EDUC 421 and consent of credential adviser.

EDUC 484. Seminar: Analysis \& Strategies of Teaching
Analytical methods used to study the instructional process. Investigation theories and methods in instructional analysis. Emphasis on strategies of teaching. Prerequisite: EDUC 481 or 482, or equivalent, or consent of credential adviser.

EDUC 486. 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. \(C R\) or NC grade is given. Prerequisite: Consent of credential adviser.

EDUC 495. 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 497. Selected Topics offered during Winter Term.
EDUC 498. Individual Study (1-4)
For qualified undergraduate students in need of specialized study not available through the regular program. 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.

EDUC 501. Education in Society
Study of social forces influencing the educative process, the curriculum, and institutional and professional roles in American public education. Prerequisite: Completion of student teaching or consent of adviser.

EDUC 502. History of Education (2)
\(\cdot\) 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 301 or 302, or equivalent, or consent of instructor. Teaching experience recommended.

EDUC 503. Comparative Education (2)
Study of representative national educational programs, emphasis on the political, social and economic determinants, and contemporary issues and trends. Prerequisite: EDUC 301 or 302, or equivalent, or consent of instructor. Teaching experience recommended.

EDUC 504. 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 301 or 302 , or equivalent, or consent of instructor. Teaching experience recommended.

EDUC 505. 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 301 or 302, or equivalent, or consent of instructor. Teaching experience recommended.

EDUC 506. 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 301 or 302, or consent of instructor. Teaching experience recommended.

EDUC 523. Curriculum in Early Childhood (3)
A study of early childhood curriculum class organization, methods, and materials. Prerequisite: EDUC 301, or consent of instructor.

Understanding and correcting reading difficulties; use of procedures in preventing reading retardation; selecting and developing materials; making use of informal inventories; críitiquing clinical and corrective techniques; analysis of research in these two areas. (Formerly 520) Prerequisites: EDUC 325, 347, or 410, teaching experience, and consent of instructor.

EDUC 526. Curriculum \& Instruction in Social Studies, (K-12) (3)
Analysis and evaluation of social studies curriculum and in-. struction in the public schools. Prerequisites: EDUC 313, teaching experience, and consent of graduate adviser and instructor.

EDUC 527. Curriculum \(\&\) Instruction in Language Arts, (K-12) (3)
Analysis and evaluation of language arts curriculum in elementary and secondary schools. Prerequisites: EDUC 325 or 347 or 425 , teaching experience, and consent of graduate adviser or instructor.

EDUC 528. Curriculum \(\mathcal{G}\) Instruction in Math, (K-12)
Analysis and evaluation of the mathematics curriculum in elementary and secondary schools. An opportunity for in-depth study in selected aspects of curriculum planning and instruction. (Formerly 543) Prerequisite: EDUC 313 or 316 or equivalent, or consent of instructor.

EDUC 529. Curriculum \(\mathcal{G}\) Instruction in Science (K-12)
Analysis and evaluation of science curriculum in K-12 schools. Opportunity for extensive study in selected aspects of contemporary planning and instruction. Prerequisite: EDUC 313, or equivalent or consent of instructor.

EDUC 530. 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 531. Curriculum Planning \& Development (3)
Analysis of models in curriculum development; systematic planning for curriculum improvement; behavioral objecțives. (Formerly 564) Prerequisite: Teaching experience or consent of instructor.

\section*{EDUC 532. New Developments in Education* (2)}

Evaluation of new developments in elementary and secondary éducation; philosophical bases, organizational structure, curriculum innovations; instructional materials and methodology. (Formerly 587) Prerequisite: Teaching experience or consent of instructor.

EDUC 550. Organization of Public Education
Study of organizational concepts and practices in the public schools; legal cases for schools; finançial planning and budget systems. Analysis of administrative theory. (Formerly 561) Prerequisite: Teaching experience or consent of instructor. , EDUC 551. Supervision of Instruction (3)

Techniques and practices used in school supervision; selection, placement, and evaluation of school personnel; analysis of per̆sonnel administration: (Formerly 562) Prerequisite: Teaching experience or consent of instructor.

EDUC 552. Legal \& Finançial Aspects of Education (3)
Legal principles related to education as defined by laws and judicial interpretations, with special references to the Education Code of California. Introduction to financing and budgeting systems. (Formerly 580) Prerequisite: Consent of instructor.

EDUC 553. Counseling f Testing in Education (3)
Introduction to counseling programs and processes; measurement and evaluation of learning; techniques of test construction for classroom use; statistical aspects \({ }^{\text {c }}\) of testing; selection and use of standardized tests; evaluation of progress. Intended as an introductory course in the masters and credential sequence. (Formerly 575 \& 577) Prerequisite: Teaching experience or consent of instructor.

EDUC 554. Exceptional Children \& Youth * (3)
Physical, intellectual, social and emotional deviations among children ànd youth; community resources, educational adjustments. (Forpnerly 576) Prerequisite: Consent of instructor.

EDUC 555. Administration of Individual, Schools (2)
An añalysis 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 fòr elementary and secondary administration and supervision. Prerequisites: Admittance to the administration/supervision credential program and consent of instructor.

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 560. Family Counseling \& Community Resources
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 561: 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. (Fortherly 581) Prerequisite: Consent of instructor.

EDUC 564. 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 570. Seminar in Elementary Education (2)
Analysis and synthesis of relationship of content curricula to elementary school organization. (Formerly 521) Prerequisites: Work in EDUC 525-529 series, and permission of graduate adviser.

EDUC 571. Seminar in Secondary Education (2)
An analysis and evaluation of curriculum instructional policies and practices in the contemporary secondary school. (Formerly 548) Prerequisite: Consent of graduate adviser.

EDUC 572. 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 in administration and supervision credential program. (Formerly 583) Prerequisite: Consent of graduate adviser.'

Investigation and review of research and writings in reading; student must select one topic for in-depth analysis. (Formerly 525) Prerequisite: EDUC 325 or 347 or 410 , or equivalent, tẹaching experience, or consent of instructor.

EDUC 576. Pupil Personnel Services Seminar (2)
Current practices in pupil personnel services. Organization and administration of pupil personnel services. Open to practicing personnel and those near completion of program. (Formerly 535) Prerequisite: Consent of instructor.

EDUC 594. 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 two hours per week). Prerequisites: EDUC 525 or equivalent, and consent of instructor. May be repeated for a total of six units.

EDUC 595. 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.

ẸDUC 597. Selected Topics offered during Winter Term (4)
EDUC 598. 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 599. Thesis or Project (2)
This enrollment involves individual consultation in the preparation of a masters thesis or project. Prerequisites: Approval of student's graduate committee and consent of instructor. May be repeated for a total of 4 units.

EDUC 694. Field Work - Supervision (2-4)
Actual work experience in the field for which student is seeking credential. Joint supervision by district and college personnel.

Actual work experience in the field for which student is seeking credential. Joint supervision by district añd college personnel.

EDUC 697. Selected Topics offered during Winter Term (4)
EDUC 698. 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 six weeks prior to registration. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

\section*{ENGLISH AND FỐREIĠN LANGUAGES}

Douglas H. Taylor, Ph.D., Associate Professor of English, Chairman Lawrence D. Berkoben, Ph.D., Professor of English

Joseph Brewer, Ph.D., Professor of Ènglish James P. Jensen, Ph.D., Professor of English Lola V. Johnson, 'M.A., Associate Professor of English Paul P. Reuben, Ph.D., Associate Professor of English Robert K. Anderson, Ph.D., Assistant Professor of Spanish John E. Carroll, Ph.D., Assistant Professor of English Michael C. Fuller, Ph.D., Assistant Professor of French Gerhard Mack, Ph.D., Assistant Professor of German Jerry Clinton O'Dell, Ph.D., Assistant Professor of English George Settera, Jr., Ph.D., Assistant Professor of Eng1ish 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.

REQUIREMENTS 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.
3. Complete the major of not less than 33 upper division units; of these, no more than 11 unnits of CR graded course work may apply toward the major.
4. Complete a minor to be selected in consultation with the major advisex, 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.
5. Consult with the major adviser during each advising period concerning requirements, changes in curriculum, waivers, etc.

Prerequisites to the Major:
।
ENGL 100. English Composition, 3 units
ENGL 101. Introduction to Literature, 3 units
ENGL 201. Critical Approaches to Literature, 3 units
THE MAJORStudents are expected to demonstrate proficiencyin Advanced Composition3Completion of 30 units in upper division Englishcourses as approved by the major adviser, to in-clude at least one course from each of the areaslisted below30
1. A major figure
2. A genre study
3. English literature before 1800
4. English literature after 1800
5. American literature
Total ..... 33
DEGREE MINOR IN ENGLISH
Eighteen units, to include at least 10 upper division units.
Lower Division
ENGL 100. English Composition, 3 units
ENGL 101. Introduction to Literature, 3 units
Upper Division
Completion of a minimum of 10 upper division units inEnglish as approved by the minor adviser.
TEACHING CREDENTIALS
English majors interested in multiple subject or singlesubject credentials are referred to the Education section ofthe catalog for a description of teaching credential programs.
Liberal studies concentration in english
ENGL 300. Advanced Composition ..... 3
Electives in English selected under advisenert, to include a minimum of 12 upper division units 17
Total ..... 20

For a student preparìng to take the multiple subject credential, the following courses would be particularly appropriate for the concentration. (No course may be doublecounted for both area requirements and the concentration.)

> ENGL 301. Writing Workshop, 3 units
> ENGL 305. Introduction to Cinema, 3 units
> ENGL 310. Studies in English Literature to 1800 , 3 units
> ENGL 320. Studies in English Literature after 1800, 3 units
> ENGL 330. Studies in American Literature, 3 units
> ENGL 340. Studies in Major Figures, 3 units
> ENGL 350. Genre Studies, 3 units
> ENGL 370. Studies in Minority Literature, 3 units
> *ENGL 380. Introduction to Linguistics, 3 units
> *ENGL 381. Introduction to Historical Linguistics, 3 units
> ENGL 382. American Eng1ish Dialects, 3 units
> ENGL 393. Studies in World Literature in Translation, 3 units
> *ENGL 460. Tutorial Projects in English, 3 units
> *ENGL 462. Children's Literature, 3 units
> *ENGL 463. Adolescent Literature, 3 units

\section*{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 DEGREE
1. Completion of at least 30 units to include the following:
A. ENGL 500. Seminar: Graduate Studies in English5
B. Minimum of 15 units to be completed from among seminars in the following subject areas:** . . . . . . . . . . . . . . . . . 15
ENGL 510. Seminar: Medieval Literature, 4 units
ENGL 520. Seminar: The Renaissance, 4 units

\footnotetext{
* These courses cannot apply toward the concentration if used to satisy Liberal Studies Area D requirements.
** Specific seminar titles will be announced in the Class
Schedule.
}

ENGL 530. Seminar: The Enlightenment and 18th Century, 4 units
ENGL 540. Seminar: The Nineteenth Century, 4 units
ENGL 550. Seminar: The Twentieth Century, 4 units ENGL 560. Seminar: American Literature, 4 units
C. 1. A maximum of five units to be taken in ENGL 599: Thesis.
2. A maximum of ten units of post-baccalaureate, \(400-1\) evel 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.

\section*{REQUIREMENTS FOR THE THESIS PROGRAM:}
1. A minimum of 30 units of approved graduate credit.
2. The submission of an approved thesis.
3. A written general literature examination.
4. A one-hour oral examination upon the thesis and the written examination.

REQUIREMENTS FOR THE NON-THESIS PROGRAM:
1. A minimum of 30 units of \({ }^{\text {approved }}\) graduate credit.
2. The submission of two approved seminar papers written in two different subject areas.
3. A written general literature examination.
4. A one-hour oral examination upon the seminar papers and the written examination.

\section*{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 100. English Composition (3)
Directed writing based upon analytical reading of documents to include: expository prose, fiction, drama, journals.

ENGL 101. Introduction to Literature (3)
Introduction to literature of various types. Readings in fiction, poetry, and drama.

ENGL 150. Perspectives in World 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 201. "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 100, 101, or equivalent.

ENGL 205. 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 100.

ENGL 295. Selected Topics in English (Topics to be specified in Class Schedule) (1-5)

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

ENGL 297. Selected Topics offered during Winter Term (4)
Upper Division
ENGL 300. Advanced Composition (3)
Advanced expository writing based on analytical reading lof selected documents. Prerequisite: ENGL 100 or equivalent.

ENGL 301. Writing Workshop (3)
Practice in the methods and techniques of various types of writing. Workshop may vary from term to term. Typical courses include: Journalistic Writing; Creative Writing. Offered each semester. Prerequisite: ENGL 100 or equivalent.

ENGL 305. 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 Drama 305)

ENGL 310. Studies in English Literature to 1800 (3)
Studies in various aspects of English literature to 1800. Course content may vary from term to tèrm. Typical courses 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 320. Studies in English Litexature 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 330. 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 340. Studies in Major Figures (3)
Studies in various major figures in English and American literature. Writers may be studied singly or in pairs. Typical courses include: Shakespeare'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 350. Genre Stüdies (3)
Studies in the various genres. Course content may vary from term to term. Typical courses include: The 18th Century English Nove1; The Victorian Novel; Modern Drama; The Modern British Novel. Offered each semester. Different titles may be taken for credit under this course number.

ENGL 370. 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. Offered each semester. Different titles may be taken for credit under this course number.

ENGL 380. Introduction to Linguistics "(3)
An introduction to the scientific study of language. Topics covered include dialect study, language acquisition, comparative linguistics, and modern theories of language.

ENĞL 381. Ińtroduction 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 382. American English Dialects (3)
A study of variation in English. Both regional and social dialects will be covered. Prerequisites: ENGL 380, 381; SPCH 300 or SPCH 401, or consent of instructor.

ENGL 393. 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 French, German, Spanish 393)

ENGL 400. Special Study in Major Figures (2-5)
Advanced study of a major figure or pair of major figures. Course content may vary from term to term. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 405. 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; 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 410. 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 420. 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. Offered each year. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 430. 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 440. 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. Offered each year. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 450. 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. Offered each year. Different titles may be taken for credit under this course number. Prerequisite: Consent of instructor.

ENGL 460. 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 461. Curriculum and Instruction: English (3)
Contemporary trends in English education. Curriculum development, selection and organization of materials and procedures for the secondary school. Field observations. (Formerly 453) Prerequisites: Admission to student teaching and consent of credential adviser and the department. (Same as Education 320)

ENGL 462. Children's ḷiterature (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 463. 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 470. Interdepartmental Study (2-5)
Studies in various interdepartmental topics. Course content may vary from term to term. Typical courses include: Literature of Urban Lïfe; Medieval English Drama: Literature, 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 495. Selected Topics in English (Topics to be specified in the Class Schedule) ( \(1-5\) )

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

ENGL 497. Selected Topics offered during Winter Term (4)
ENGL 498. ' Individual Study (1-4)
For students capable of independent work and in need of advanced pr specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

\section*{Graduate}

ENGL 500. 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 literature and criticism.

ENGL 510. 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.

ENGL 520. 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.

ENGL 530. 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.

ENGL 540. 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.

ENGL 550. 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.

ENGL 560. 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 ENGL 550)

ENGL 595. 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: Consent of instructor.

ENGL 597. Selected Topics offered during Winter Term (4)
ENGL 598. 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.

ENGL 599. Thesis (3-5)

FRENCH.
REQUIREMENTS FOR BACHELOR OF ARTS, FRENCH
French majors are to:
1. Complete the requirements for Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. 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.
4. 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 101, 102. Elementary French I, II, 8 units* FREN 201, 202. Intermediate French I, II, 6 units*

\section*{THE MAJOR}

Required courses in the major field:
Units
FREN 301, 302. Advanced French Grammar and
Composition I, II . . . . . . . . . . 6
FREN 350. French Phonetics . . . . . . . . . . . . . . 3
FREN 351. French Conversation . . . . . . . . . . . . 1
Elective courses in the major field:
Two courses from the sequence \(330,331,332,333\). . 6
Upper division elective courses to total not less
than 8 units 8
Total . . . . . . . . . . . . . . . . . . . 24

\section*{DEGREE MINOR IN FRENCH}

Twenty-six units, to include at least 12 units in upper division, with a minimum of 14 college units.

Lower Division
FREN 101, 102. Elementary French I, II, 8 units* FREN 201, 202. Intermediate French I, II, 6 units *

\footnotetext{
* 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.
}

\section*{Upper Division}

> FREN 301, 302. Advanced French Grammar and Composition I, II, 6 units
> One course from the sequence \(330,331,332,333,3\) units Upper division electives, 3 units
> LIBERAL STUDIES CONCENTRATION IN FRENCH
> FREN 201, 202. Intermediate French I, II or equivalent 0-6
> FREN 301, 302. Advanced French Grammar and Composition 6
> Two courses selected from the following . . . . . . . . 6
> FREN 330. Aspects of French Non-Fiction, 3 units
> FREN 331. Aspects of French Drama, 3 units
> FREN 332. Aspects of French Poetry, 3 units
> FREN 333. Aspects of the French Novel, 3 units
> Upper division electives in French by advisement. . . .3-8
> Total . . . . . . . . . . . . . . . 20-21
> COURSE DESCRIPTIONS
> Lower Division

FREN 101. Elementary French I (4)
First year French: audio-lingual approach; understanding, speaking, reading, and writing. (Formerly 101, 102)

FREN 102. Elementary French II (4)
Continuation of FREN 101. (Formerly 102, 103) Prerequisite: FREN 101 or equivalent or consent of instructor.

FREN 201. 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 102 or equivalent or consent of instructor.

FREN 202. Intermediate French II (3)

Continuation of FREN 201. (Formerly 203) Prerequisite:
FREN 201 or equivalent or consent of instructor.
FREN 295. 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 297. Selected Topics offered during Winter Term (4)

Upper 'Division
FREN 301. 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. Prerequisite: FREN 202 or equivalent or consent of instructor.

FREN 302. Advanced French Grammar and Composition II (3)
Continuation of FREN 301. Prerequisite: FREN 301 or equivalent or consent of instructor.

FREN 330 . 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 202 or equiyalent or consent of instructor.

FREN 331. Aspects of French Drama (3)
A course dealing with selected French dramatic works, beginning wịth the Middle Ages and going to the present. Conducted in French. Prerequisite: FREN 202 or equivalent or consent of instructor.

FREN 332. 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 202 or equivalent or consent of instructor.

FREN 333: 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: FRĖN \(\mathbf{2 0 2}\) or equivalent or consent of instructor.

FREN 350. 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. Prèrequisite: FREN 202 or equivalent or consent of instructor.

FREN 351. 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 202 or equivalent or consent of instructor.

FREN 393. 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 393)

FREN 407. 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 202 or equivalent or consent of instructor.

FREN 408. French Romanticism (3)
Major works of the poetry, drama and novels of the French Romanticists, beginning with Mme de Stael and going through Edmond Rostand. (Formerly 428) Prerequisite: FREN 202 or equivalent or consent of instructor.

FREN 409. 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. Prerequisite: FREN 202 or equivalent or consent of instructor.

FREN 410. Modern French Fiction (3)
French novels from the end of the Romantic period to the present, stressing Flaubert, Zola, Proust, Gide, Mauriac, Saint-Exupéry, Camus, Sartre and the new novelists. (Formerly 428, 429) Prerequisite: FREN 202 or equivalent or consent of instructor.

FREN 495. 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 497. Selected Topics offered during Winter Term (4)
FREN 498. 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 598. Individual Study (1-4)
For post-baccalaureate 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 instŗuctor.

\section*{GERMAN}

\section*{DEGREE MINOR IN GERMAN}

Twenty six units, to include at least 12 units in upper division, with a minimum of 14 college units.

Lowêt Division
GERM 101, 102. Elementary German I, II, 8 units*
'GERM 201, 202. Intermediate German I, II, 6 units*
Upper Division
GERM 301. Advanced German Grammar and Conversation, 3 units GERM 310. Modern Germany, 3 units Upper division electives, 6 units

LIBERAL STUDIES CONCENTRATION IN GERMAN
\begin{tabular}{|c|c|}
\hline 202 & Intermediate German I, II or equivalent \\
\hline GERM 301. & Advanced German Grammar and Conversation \\
\hline GERM 310. & Modern Germany \\
\hline GERM 320. & The German Classics \\
\hline GERM 321. & Modern German Literature . . . . . . . . 3 \\
\hline Upper division & electives in German by advisement. . . 3-8 \\
\hline
\end{tabular}

Total . . . . . . . . . . . . . . . 20-21
COURSE DESCRIPTIONS
Lower Division
GERM 101. Elementary German I (4)
'First year German, audio-lingual approach. (Formerly 101, 102)

GERM 102. Elementary German II (4)
Continuation of GERM 101. (Formerly 102, 103) Prèrequisite: GERM 101 or equivalent or consent of instructor.

\footnotetext{
* 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.
}

GERM 201. Intermediate German I (3)
Second year German: intensified review of grammar. Special emphasis will be given to the development of increased skills in the reading, writing, speaking, and understanding of German. (Formerly 201, 202) Prerequisite: One year of college-1evel German or equivalent or consent of instructor.

GERM 202. Intermediate German II (3)
Continuation of GERM 201. (Formerly 202, 203) Prerequisite: GERM 201 or equivalent or consent of instructor.

GERM 295. Selected Topics in German (Topics to be specified in Class Schedule) (1-5)

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

GERM 297. Selected Topics offered during Winter Term (4)

\section*{Upper Division}

GERM 301. Advanced German Grammar and Conversation (3)
Oral and written practice of the language, syntactical analysis of selected writings, written composition and oral reports. Prerequisite: Two years of college German or equivalent or consent of instructor.

GERM 310. 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.

GERM 320. The German Classics (3)
Major works of German literature from the beginnings to the 19th century, within the context of literary-philosophical movements. Readings include works of: Walter von der Vojelweide, Grimmelshausen, Lessing, Goethe, Schiller, Eichendorff, Kleist, Buchner. Prerequisite: Two years of college German or equivalent or consent of instructor.

GERM 321. Modern German Literature (3)
Major works of German literature from the turn of the century to the present. Selected readings will include works of Brecht, Kafka, Mann, Hesse, Grass, Boell. Prerequisite: Two years of college German or equivalent or consent of instructor.

GERM 393. German Literature in Translation (2-5)
Studies in various aspects of German literature in English translation. Course content may vary from term to term. Typical courses include: The Age of Goethe; Modern German Fiction; Modern German Drama. Different titles may be taken for credit under this course number. (Same as ENGL 393)

GERM 495. Selected Topics in German (Topics to be specified in Class Schedule) (1-5)
Development of a selected topic in German. Topics vary each term. Different topics may be taken "for credit. Prerequisite: Consent of instructor.

GERM 497. Selected Topics offered during Winter Term (4)
GERM 498. Individual Study (1-4)
For: advanced undergraduate student prepared for independent work, and in need of advanced and specialized study in German. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

GERM 598. Individual Study (1-4)
For qualified post-baccalaureate students in need of advanced or specialized study, and may be repeated for a total of 6 units. Prerequisite: Consent of instructor*.

\section*{SPANISH}

REQUIREMENTS FOR BACHELOR OF ARTS, SPANISH
Spanish majors are to:
1. Complete the requirements for Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. 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.
4. Completion of an academic minor is not required but is strongly recommended for single-subject credential candidates.

DEGREE MAJOR IN SPANISH
Prerequisites to the Major:
SPAN 101, 102. Elementary Spanish I, II, 8 units* SPAN 201, 202. Intermediate Spanish I, II, 8 units*

\footnotetext{
* 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 Spanish or the equivalent is required for admission to upper division courses.
}
SPAN* 301, 302. Advanced Spanish I, II ..... 6
Additional courses in upper division Spanish, as approved by the major adviser, to total not less than 18 units ..... 18
Total ..... 24
DEGREE MINOR IN SPANISH

Twenty eight units, to include at least 12 units in upper division, with a minimum of 14 college units.

\section*{Lower Division}

SPAN 101, 102. Eqementary Spanish I, II, 8 units* SPAN 201, 202. Intermediate Spanish I, II, 8 units*

\section*{Upper Division}

SPAN 301, 302. Advanced Spanish I, II, 6 units Additional courses in upper division Spanish, as approved by the department, to total not less than 6 units.

\section*{LIBERAL STUDIES CONCENTRATION IN SPANISH}

SPAN 201, 202. Intermediate Spanish I, II or equivalent 0-6
SPAN 301, 302. Advanced Spanish I, II . . . . . . . . 6
Upper division electives in Spanish by advisement . . 8-14

Total . . . . . . . . . . . . . . . . . . . . 20
COURSE DESCRIPTIONS
Lower Division
SPAN 101. Elementary Spanish I (4)
First year Spanish. Audio-1ingual approach. (Formerly 101, 102)

SPAN 102. Elementary Spanish II (4)
Continuation of SPAN 101. (Formerly 102, 103) Prerequisite:
SPAN 101 or equivalent.

\footnotetext{
* A student who can demonstrate equivalent preparation may be exempt from 4 to 14 units tof the lower division requirement. Two years of college-level Spanish or the equivalent is required for admission to upper division courses.
}

SPAN 201. Intermediate Spanish I (4)
Second year Spanish, with emphasis on audio-lingual work in the languadge laboratory: Includes review of language structure patterns and reading assignments. (Formerly 201, 202) Prereqủisite: One year college-level Spanish or equivalent.

SPAN 202. Intermediate Spanish II (4)
Continuation of SPAN 201. (Formerly" 202, 203) Prerequisite: SPAN 201 or equivalent.

SPAN 295. Selected Topics in Spanish (Topics to be specified in Class Schedule) (1-5)

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

SPAN 297. Selected Topics offered during Winter Term (4)
Upper Division
SPAN '301. Advanced Spanish I (3)
Qral and written practice of the language through class discussion of selected works, and written compositions about related topics. Required of majors and minors. Prerequisite: The equivalent of two years of college-1evel Spanish or consent of instructor.

SPAN 302. Advanced Spanish II (3)
Continuation of SPAN 301. Required of major and minors. Prerequisite: SPAN 301 or equivalent or consent of instructor.

SPAN 320. Literature of Spain I (3)
A study of selected complete works by Spanish writers. Prerequisite: The equivalent of two years of college-level Spanish or consent of instructor.

SPAN 321. Literature of Spain II (3)
A study of selected complete works by Spanish writers. Prerequisite: The equivalent of two years of college-level Spanish or consent of instructor.

SPAN 330. Literature of Spanish America I (3)
From the beginnings to 1880. (Formerly 330, 331) Prerequisite: Two years of college-level Spañish or consent of instructor.

From 1880 to the present. (Formerly 331, 332) Prerequisite: Two years of college-level Spanish or consent of instructor.

SPAN 350. History of the Spanish Language (2)
A study of the historical phonological, morphological, and syntactical changes of the language from Vulgar Latin to modern times. Required of majors. Prerequisite: The equivalent of two years of college-level Spanish or consent of instructor.

SPAN 351. Spanish Phonemics and Phonetics (2)
A study of the phonological, morphological, and syntactical features of the language through linguistic analysis. Prerequisite: SPAN 350 or equivalent or consent of instructor.

SPAN 360. History and Civilization of Spain (3)
A brief survey of the history of Spain, its culture and civilization. Prerequisites: SPAN 202; consent of instructor.

SPAN 361. History and Civilization of Spanish America (3)
A survey course of the history and civilization of Spanish America. Prerequisites: SPAN 202; consent of instructor.

SPAN 393. Spanish Literature in Translation (2-5)
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 393)

SPAN 400. Advanced Conversation (2)
A course for students who are fluent in the language. Class work will include discussion of current events and of relevant topics as well as talks by students. Prerequisite: Consent of instructor.

SPAN 401. Advanced Composition (2)
Practice in composition on assigned and free topics. Study of styles. Prerequisite: Three years of college-level Spanish or consent of instructor.

SPAN 402. Business Spanish (2)
Practice in writing business letters and forms in Spanish. Prerequisite: Consent of instructor.

SPAN 420. El teatro en Espana (3)
A study of Spanish theatre from early times to the present; including the reading of selected plays. Prerequisite: Two years of college-level Spanish or consent of instructor.

SPAN 423. La literature picaresca (3)
A study of the development of the picaresque genre in Spain and Spanish America, including the reading of selected complete works. Prerequisite: The equivalent of two years of collegelevel Spanish or consent of instructor.

SPAN 424. Cervantes (3)
A study of the works of Cervantes including Don Quijote. Prerequisite: Two years of college-level Spanish or consent of instructor.

SPAN 451. Curriculum and Instruction: Spanish (3)
Current practices in modern foreign languages instruction, with emphasis on laboratory procedures and the audio-lingualvisual approach. Prerequisite: Admission to credential program or teaching experience or consent of instructor. (Same as EDUC 321)

SPAN 460. Literatura Mexicana (3)
Authors of Mexico and their works from Cortes to the contemporary period. Prerequisite: Consent of instructor.

SPAN 495. Selected Topics (Topics to be specified in Class Schedule) (1-5)

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

SPAN 497. Selected Topics offered during Winter Term (4)
SPAN 498. 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 598. Individual Study (1-4)
For post-baccalaureate students needing advanced or specialized study. May be repeated for 6 units. Prerequisite: Consent of instructor.

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 Ethinic Studies faculty members.

The following is a list of the courses that are offered in Asian-American Studies, Black Studies, Chicano Studies and NativeAmerican 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 200. Contemporary Black Studies, 3 units
ETHS 210. Contemporary Chicano Studies, 3 units
ETHS 220. Contemporary Asian-American Studies, 3 units
ETHS 230. Contemporary Native-American Studies, 3 units

\section*{Category II}

A detailed study of the cultural development of ethnic groups in America.

ANTH 335. The North American Indian, 3 units
ANTH 336. The Indians of California and Western North America, 3 units
ANTH 337. Native Peoples of Mexico, 3 units
ENGL 370. Studies in Minority Literature, 3 units

\section*{Category III}

A detailed study of the historical development of each minority group in America.

HIST 351. Latin America in Traditional and Colonial Times, 3 units
HIST 371. Mexican-American History, 3 units
HIST 373. Afro-American History, 3 units

A study of the psychological, sociological, economic, educational and political adjustments necessary \({ }^{\text {for }}\) members of each of these groups to function in American society.
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EDUC 303.: Ethnic Groups in Public Education, 2 units
EDUC 420. Teaching the Culturally Different, 3 units
PSÇI 432. Minority Politics, 3 units
SOCL 301. Race and Ethnic Relations, 3 units

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\section*{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 494. Field Work in Ethnic Studies, 4 units
ETHS 495. Selected Topics in Ethnic Studies, 1-5 units
ETHS 498. Individual Study, 1-4 units

\section*{COURSE DESCRIPTIONS}

ETHS 200. 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 210. 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.

4
ETHS 220. 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.

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 494. 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 495. Selected Topics in Ethnic Studies (Topics to be Specified in Class Schedule) (1-5)

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

ETHS 496. 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 497. Selected Topics offered during Winter Term (4)
ETHS 498. 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.

\section*{GEOGRAPPHY}

\author{
Joel Canby, Ph.D., Professor, Chairman Department of Anthropology/Geography Melvin H. Aamodt, Ph.D., Associate Professor Ida I. Bowers, \(\mathrm{Ph}_{r} \mathrm{D} .\), Assistant Professor Leon S. Pitman, 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.
3. 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 206. Introduction to Cultural Anthropology, 3 units
BIOL265. Environmental Biology, 2 units
BIOL 363. Ecology, 4 units
GEOL 210. Principles of Geology, 3 units and
GEOL 211. Geology Laboratory, 1 unit
MATH 160. Statistics, 4 units
MATH 200. Introduction to Computers, 3 units
SOCL 203. Research Methods, 4 units

Required courses in the major field:
Two courses as follows:
GEOG 201. Introduction to the Physical Environment, 3 units
Any one of the following:
GEOG 202. Introduction to Cultural Geography, 3 units
GEOG 240. World Regional Geography I, 3 units
GEOG 241. 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 330. Economic Geography, 3 units
GEOG 335. Urban Geography, 4 units
GEOG 402. Human Ecology, 3 units
GEOG 430. Geography of Resource Planning, 3 units
2. Topical Physical Geography

GEOG 310. Climatology, 3 units
B. Any combination of 6 or more units from the following:

Regional Geography
GEOG 351. Geography of North America, 4 units
GEOG 355. Geography of Europe, 3 units
GEOG 357. Geography of the Soviet Union and Its Satellites, 3 units
GEOG 359. Geography of Asia, 4 units
GEOG 420. Geography of Underdeveloped Areas, 3 units
GEOG 451. Geography of California, 3 units
GEOG 461. Historical Geography of the United States, 3 units
C. Six units from the following, of which one course must be either GEOG 370 or GEOG 471. Students preparing for a career in teaching are expected to include GEOG 484. Those preparing for graduate study in geography should take GEOC 480:

Methodology in Geography
GEOG 370. Map and Aerial Photo Interpretation, 4 units
GEOG 471. Field Studies, 3 units
GEOG 480. Survey of Geographic Thought and Literature, 3 units
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GEOG 484. Geography and the Earth Sciences for
Teachers, 3 units
GEOG 496. Senior Seminar, 3 units

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D. Upper division electives in Geography to make a total of at least 24 units, including those upper division units listed above.

\section*{DEGREE MINOR IN GEOGRAPHY}

Sixteen semester units approved by the minor adivser 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.)

\section*{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 GEOG 201. Introduction to the Physical Environment, 3 units
GEOG 202. Introduction to Cultural Geography, 3 units
2. Complete one of the following courses in the
methodology of Geography. . . . . . . . . . . . . . .3-4
GEOG 370. Map and Aerial Photo Interpretation, 4 units
GEOG 471. Field Studies, 3 units
3. Complete the following regional course . . . . . . . 3 GEOG 351. Geography of North America, 4 units
4. Additional units in geography . . . . . . . . . . . 10-11

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 484, Geography and the Earth Sciences.for Teachers, in their electives

REQUIREMENTS FOR GEOGRÄPHY 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.

\section*{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 201. 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, minerals, water resources, and their significance and meaning to man; man's impact on and use of these elements. (Lecture, 2 hours; laboratory, 2 hours)

\section*{GEOG 202. 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 modified his environment. Field trip may be required.

GEOG. 240. 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 241. 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. Key topics to be considered include location, population, political status, the natural environment, type of economy, potentialities, and current problems.

GEOG 295 . 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. 297. Selected Topics offered,during Winter Term (4)
Upper Division
GEOG 310. Climatology (3)
The elements and controls of weather and climate; analysis of climatic regions of the world. Prerequisite: GEOG 201 or consent of instructor.

GEOG 330. Economic Geography (3)
Study of world economic activity from a geographic point of view; analysis of agricultural and other economic systems of different regions of the world in relation to their natural and cultural settings.

GEOG 335. .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.

GEOG 351. 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 200-level geography course or consent of instructor.
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GEOG 355. Geography of Europe (3)
The regional geography of Europe, exclusive of the Soviet Union, with emphasis on the historical development of presentday patterns. Prerequisite: Any 200-1evel geography course or consênt of instructor.

GEOG 357. 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 200-level geography course or consent of instructor.

GEOG 359. Geography of Asia (4)
A comprehensive survey of the physical, cultural, and economic geography of Asia excluding Asiatic Russia. Prerequisite: Any 200-1evel geography course or consent of instructor.

GEOG 370. Map and Aerial Photo Interpretation (4)
Introduction to thematic cartography; fundamentals of interpretation of the physical and cultural landscape from topographic maps and aerial photographs; cartographic portrayal. (Lecture, 3 hours; laboratory; 2 hours) Prerequisite: Six units of geography or consent of in'structor.

GEOG 402. Human Ecology (3)
A theoretical analysis of the relationships between the natural environment and man's cultural achievements, with special problems relating to both primitive and modern man. Prerequisite: Any 200-1evel geography course or consent of instructor.

GEOG 420. Geography of Underdeveloped 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: Six units of geography.

GEOG 430. 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 resolurce analysis; case studies from developed and underdeveloped countries. Prerequisite: Any 200-1evel geography course or consent of instructor.

GEOG 451. 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 200-level course in geography or consent of instructor.

GEOG 461. Hịistorical 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.

G̣EOG 471. 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: Six units of geography.

GEOG 480. Survey of Geographic Thought and Literature (3)
A pro-seminar 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: Six upper division units in geography (may be concurrent).

GEOG 484. 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: Six units of geography.

GEOG 495. 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 496. 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 497. Selected Topics offered during Winter Term (4)
GEOG 498. 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.

\section*{health sciences}

The Health Sciences Advisory Committee is prepared to adyise students planning to enter medicine, dentistry, pharmacy, optometry, veterinary medicine, or other health professions. 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 cäreer.

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 100, 300), Biological Sciences (ZOOL 105 and BOTY 105), Chemistry (CHEM 110, 111), and Physics (PHYS 110, 111), during their freshman and sophomore years. Mathematics to the level of precalculus (MATH 110 or 105) 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 follow. ing additional preparation completed or in progress: CHEM 301, 304; and either ZOOL 313, 315, or BIOL 331. MATH 141 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 pre-professional coursework for areas such as laboratory technology, cytotechnology, nursing, and other paramedical and health related fields.

\author{
John E. Caswell, Ph.D., Professor, Chairman 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 \\ Franklin B. Holder, Ph.D., Associate Professor \\ Phebe Ann Marr, Ph.D., Associate Professor Ronald Jay VanderMolen, Ph.D., Associate Professor \\ Samuel A. Oppenheim, Ph.D., Assistant 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.
3. Complete the major of not less than 30 upper division units. No more than a total of 8 units of CR graded course work may apply toward the major; Winter Term units only may be taken CR/NC.
4. Completion of a minor is not required.

DEGREE MAJOR IN HISTORY
Recommended lower division courses:
HIST 101, 102. Western Civilization I, II
HIST 205. History of Early African, Anerican, East Asian and Middle Eastern Civilizations
HIST 206. History of the Third World in the Age of Imperialism

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.

Prerequisifes to the Major
Required courses in the major field:
HIST 290. Library Resources and Bibliographical Control for Historical Research, 2 units
HIST 299. Introductory Seminar in History, 4 units
THE MAJOR
Two courses in upper division Western history from the following list:

HIST 312. Ancient Mediterranean World II, 4 units
HIST 314. Medieval Europe I, 3 units
HIST 315. Medieval Europe II, 3 units
HIST 321. Renaissance and Reformation, 3 units
HIST 322. Absolutism and Revolution, 1598-1799, 3 units
HIST 323. Nineteenth Century Europe, 3 units
HIST 324. Twentieth Century Europe, 3 units
HIST 325. Eastern Europe Since 1453, 3 units
HIST 361. Colonial America, 3 units
HIST 362. Ante-Bellum America, 3 units
HIST 363. America After the Civil War, 3 units
HIST 364. Contemporary America, 3 units
Two courses in upper division non-Western history from the following list:

HIST 311. Ancient Mediterranean World I, 4 units
HIST 351. Latin America in Traditional and Colonial Times, 3 units
HIST 352. Latin American States Since Independence, 4 units
HIST 380. East Asia in Traditional Times, 3 units
HIST 381. East Asia in the Modern World, 3 units
HIST 386. Africa Before 1800, 3 units
HIST 387. Africa, 1800-1945, 3 units
HIST 388. Contemporary Africa, 1945 to the Present, 3 units
HIST 390. Islamic Civilization \(\mathrm{I}, 600-1500,3\) units
HIST 391. Islamic Civilization II, 1500-1914, 3 units
HIST 392. Contemporary Middle East, 4 units
HIST 403. Age of Exploration, 3 units
HIST 404. Rise and Fall of European Colonial Systems, 1830-1965, 3 units

At least two of the above four required courses must be in the pre-modern era. Courses which fulfill this requirement are:

HIST 311. Ancient Mediterranean World I, 4 units
HIST 312. Ancient Mediterranean World II, 4 units
HIST 314. Medieval Europe I, 3 units
HIST 315. Medieval Europe II, 3 units
HIST 321. Renaissance and Reformation, 3 units
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HIST 351. Latin America in Traditionaln, and Colonial Times,
3 units
HIST 380. East Asia in Traditional Times, 3 units
HIST 386. Africa Before 1800, }3\mathrm{ units
HIST.390. Islamic Civilization I, 600-1500, 3 units
HIST 4445. England to 1603, 3 units

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Two courses in: HIST 496. Directed Reading and HIST 499. Senior Thesis

Elective courses to bring the total number of units in the major to 30 upper division semester units.

\section*{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 religiou's 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 206. Introduction to Cultural Anthropology, 3 units
ENGL 150. Perspectives in World Literature, 3 units
HIST 101, 102. Western Civilization, 6-8 units
HIST 205. History of Early Africa, America, East Asia, and the Middle East, 4 units
SOCL 101. 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 356. Old World Archeology, 3 units
ANTH 407. Religion in Anthropological Perspective, 3 units SOCL 432. Sociology of Religion, 3 units
PHIL 445. Philosophy 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 nonChristian religion (HIST 311, 389, 390, 467, or, wherr applicable, 496). When research projects or analytical studies are required in the below courses, the 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 311. Ancient Mediterranean World I, 4 units
HIST 312. Ancient Mediterranean World II, 4 units
HIST 314. Medieval Europe I, 3 units
HIST 315. Medieval Europe II, 3 units
HIST 321. Renaissance and Reformation, 3 units
HIST 389. East Asian Intellectual History, 3 units
HIST 390. Islamic Civilization I, 600-1500, 3 units
HIST 467. History of Religion in Africa, 3 units
HIST 476. American Religious History, 3 units
HIST 496. 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:

An additional HIST 299, so that one HIST 299 is taken in Western history and the other is taken in non-Western history.

Two additional courses in Western and one additional course in non-Western history, with the following qualifications:
1. The Western courses must include one course from each of the following groups: HIST 311, 312; and HIST 314, 315, 321, 322.
2. The non-Western courses must include at least one course from the following list: HIST 351, 380, 386, 390.
3. The courses taken to fulfill the non-Western requirement may be taken in two separate geographic areas, but not more than two.
4. If a student chooses Directed Reading in Western history,
- he is required to take only three lecture courses in Western history; similarly, if the Directed Reading is done in non-Western history he is required to take only two non-Western courses.

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.

\section*{DEGREE MINOR IN HISTORY}

Sixteen units in history, of which 10 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.

\section*{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 15 of which must be upper division units, chosen from both Western 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 499, 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.

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.

\section*{REQUIREMENTS FOR THE DEGREE}

Completion of at least 15 units from the following upon advisement:

HIST 590. Graduate Studies (4) (two sections required of all candidates)
HIST 593. History of Historical Writing (4) (required of all candidates)
HIST 598., Individual Study
HIST 599. Thesis
Fifteen additional units selected from the above 500-level courses or from approved 400-level courses, upon advisement.

Demonstration of knowledge of subject rnatter 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.

\section*{COURSE DESCRIPTIONS}

Lower Division
HIST 101. Western Civilization I (3)
Intellectual, political, and social history of Western man from the earliest civilizations to 1500 . Examination of nan's past efforts to organize his society, to understand the nature of his universe, and to interpret the riddle of human destiny.

HYST-102. Western Civilization II (3)
Continuation of HIST 101. The medern world since 1500.
HIST 205: History of Early African, American, East Asian, and Middle Eastern Civilizations (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 206. History of the Third World in the Age of Imperialism (4)
An integrated history of the civilizations of Africa, the Americas, East Asia, and the Middle East focusing on a comparative analysis of their subjugation by Euro-American imperialism and their struggle for liberation and independence. Prerequisite: HIST 205.

HIST 260. Problems in U. S. History (3)
Conflicting interpretations of crucial issues in U. S. History. HIST 290. Library Resources and Bibliographical Control for Historical Research (2)

Survey of abstracts, bibliographies, biographical directories, book reyiew indexes, dictionaries, documents, encyclopedias, and indexes for historical research; and the application of footnote and bibliographical methods for history majors.

HIST 295. 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 297. Selected Topics offered during Winter Term (4)
HLST* 299. Introductory Seminar in. History (4)
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.

Upper Division
HIST 308. Modern World History, 1850-1945 (3)*
Integrated global history and discussion of selected problems of global significance during the period. Prerequisite: Sophomore standing.

HIST 309. Modern World History Since 1945 (3)*
Integrated global history and discussion of selected problems of global significance during the period. Prerequisite: Sophomore standing.

\section*{HIST 311. Ancient Mediterranean World I (4)}

From early Sumer to Alexander the Great. Prerequisite: Sophomore standing. HIST 101 or 205 recommended.

\section*{HIST 312. Ancient Mediterranean World II (4)}

The Hellenistic Age, Roman Republic and Empire, and the triumph of Christianity. Prerequisite: Sophomore standing. 'HIST 311 recommended.

HIST 314. Medieval Europe I (3)
Western Europe as an underdeveloped area from the fading of Roman rule to 1100. Prerequisite: Sophomore standing. HIST 101 recommended.

HIST 315. Medieval Europe II (3)
Western Europe from 1100 to 1500. Prerequisite: Sophomore standing. HIST 101 recommended. HIST 314 should precede HIST 315 when possible.

HIST 321. 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 322. 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.

\footnotetext{
*offered in 1974 and 1975 Summer Sessions
**Not offered 1974-75
}

\section*{HIST 323. Nineteenth Century Europe (3)}

Democratization in the age of nationalism; Napoleon to Sarajevo. Prerequisite: Sophomore standing.

HIST 324. Twentieth Century Europe (3)

Prerequisite: Sophomore standíng.

\section*{HIST 325. 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 351. Latin America in Traditional and Colonial Times (3)
A survey of Latin American history emphasizing the pre-Columbian Indian cultures, the cultural conflict engendered by the conquest, and the major trends of the new colonial society. Prerequisite: Sophomore standing. HIST 206 recommended.

HIST 352. Latin American States Since Independence (3)
From the struggle for independence to the mid-twentieth century. (Formerly 252) Prerequisite: Sophomore standing.

HIST 361. 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 \(* 362\). 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 363. 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 364. 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.

\section*{HIST 367. California History (3)}

Spanish exploration and settlement; environment, political, economic and social developments which give California its unique character. Prerequisite: Sophomore standing.

\section*{HIST 371. Mexican-American History (3)}

The role of the Mexican-American in the 19th and 20 th centuries with emphasis on the modern period. Prerequisite: Sophomore standing.

\section*{HIST 373. Afṛo-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 380. 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 381. 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. Prerequisite: Sophomore standing.

HIST 386. 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 387. 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 388. 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 389. East Asian Intellectual History (3)
Historical survey of the major works of Chinese and Japanese thought illustrating the main tenets and evolution of Confucianism, Taoism, Buddhism, Shintoism, and Madism. Prerequisite: Sophomore standing.

HIST 390. Islamic Civilization I, 600-1500 (3)*
The Islamic Middle East from the rise of Muhammad to the 16 th century. Establishment of Islam, its political and social institutions; the rise of medieval empires; intellectual and cultural achievements of Islam; Islam on the eve of Western expansion. (Formerly 284) Prerequisite: Sophomore standing.

HIST 391. Islamic Civilization II, 1500-1914 (3)*
The Islamic Middle East from the 16 th century to World War I. The political and social institutions of the Ottoman and Safavid empires and their decline; the encroachment of Western powers; the emergence of national movements; the origins of present conflicts. (Formerly 284) Prerequisite: Sophomore standing.

HIST 392. Contemporary Middle East (4)*
The Middle East from World War \(I\) to the present. Results of colonial rule, establishment of independent states, Arab-Israeli problem, impact of oil and rise of radical socialist regimes. (Formerily 285) Prerequisite: Sophomore standing.

HIST 403. 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 404. Rise and Fall of European Colonial Systems, 1830-1965

New colonialism of the 19th century in Asia and Africa and its collapse in the 20th century. Prerequisite: One year of collegelevel history or consent of instructor.

HIST 408. Introduction to Comparative Civilization I (3)*
The art and science of determining the basic patterns of man's career by comparing the great societies. Fundamental instruction in the methods of Toynbee and his successors. Prerequisites: Advanced training in literature or history or social science or philosophy, and consent of instructor.

\footnotetext{
*Not offered 1974-75
}

HIST 409. Introduction to Comparative Civilization II (3)*
Individual student investigations using techniques acquired in HIST 408. Prerequisite: HIST 408.

HIST 420. Modern Spain (3)
Spanish political, economic, and cultural life from 1492 to World War II. Prerequisite: One year of college-level history or consent of instructor.

HIST 430. 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-1evel history or consent of instructor.

HIST 435. Modern France (3)*
Development of the French nation, with emphasis on the period since 1870. Prerequisite: One year of college-level history or consent of instructor.

HIST 440. Modern Germany (3)
! Germany since 1648. Prerequisite: One year of college-level history or consent of instructor.

HIST 442. 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 443. 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 445. England to 1603 (3)*
Political and constitutional history from the Anglo-Saxon invasion to the creation of a modern nation state. Prerequisite: One year of college-level history or consent of instructor.

HIST 446. Modern Britain, 1603 to the Present (3)
Political, social, and intellectual developments from the Stuart era to the present. Prerequi'site: One year of college-level history or consent of instructor.

\footnotetext{
*Not offered 1974-75
}

From independence to the mid-twentieth century. Prerequisite: One year of college-level history or consent of instructor.

HIST 452. Social Change in Contemporary Latin America (3)*
An intensive study of the major groups, policies, leaders, and countries involved in important social change in Latin America. Prerequis,ite: One year of college-level history or consent of instructor.

HIST 463. The Middle East in International Affairs (3)*
The Middle East as a focus of international power struggles from the 19 th century to the present. The interests and roles of great powers in the area, the Arab-Israeli dispute, the arms race, and the present super-power balance in the area will be considered. Prerequisitite: One year of college-level history or consent of instructor.

HIST 466. African Social History (3)
Historical study of the evolution of social differentiation, of the racial and ethnic components of social legislation, and of the impact on foreign policy. (Formerly 489) Prerequisite: One year of college-1evel history or consent of instructor.

HIST 467. 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 487 and 488) Prerequisite: One year of college-level history or consent of instructor.

HIST 470. American Diplomątic History (3)
U. S. foreign relations from the colonial period to the present. Prerequisite: One year of college-level history or consent of instructor.

HIST 474. Constitutional History of the United States (3)
The theory of limited government, and how the American people have applied it. Prerequisite: One year of college-level history or consent of instructor.

\footnotetext{
*Not offered 1974-75
}

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. Prerequisite: Junior standing and two courses in American history.

HIST 478. 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. Prerequisite: One year of college-level history or consent of instructor.

HİST 480. Modern China (3)*
Analysis of the main trends of nineteenth and twentieth century imperialism in China and the consequent rise of Chinese antiimperialism; main features of China's socio-economic system and the gradual development of reform movenents culminating under the People's Republic. Prerequisites: Junior standing and one year of college-level history.

HIST 484. 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 486. 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 495. 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 496. Directed reading Seminar in History (3)
Reading in a theme or period of the student's choice. Prerequisite: Consent of instructor.

\footnotetext{
*Not offered 1974-75
}

HIST 497. Selected Topics offered during Winter Term (4)
HISTT 498: Individual Stuḍy (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 499. 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 590. . 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 593. 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 595. 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 597. Selected Topics offered during Winter Term (4)
HIST 598. 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 599. Thesis (3-6)
Thesis research. Prerequisite: Consent of instructor.


\section*{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 inter: national problems (economic, political, diplomatic, etc.), or on international organizations and their functions, or aspects of intercultural communication, etc. To jdentify the most appropriate pattern of courses, the student will prepare his program in close consultation with an advisory compittee consisting of three faculty members.

REQUIREMENTS FOR THE BACHELOR OF ARTS, SOCIAL SCIENCES, WITH A CONCENTRATION IN INTERNATIONAL STUDIES
1. Complete the requirements for the Bachelor of Arts degree.
2. Complete the general prerequisite: 1 lower division research methods course in the field of his major interest. These include PSYC 202, SOCL 203, PSCI 200. For history, the combination of HIST 290 and 299; United States History or Western Civilization likewise fulfills the prerequisite. Students in other fields will take PSYC 202 or SOCL 203.
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 206, Introduction to Cultural Anthropology, 3 units
Upper Division Courses:
ANTH 305. Cultures of the Middle East, 3 units
ANTH 306. Australia and Oceania, 3 units
ANTH 307. Sub-Saharan Africa, 3 units
ANTH 310. East and South Asia, 3 units

ANTH 311. Peoples of the Soviet Union, 3 units
ANTH 337. Native Peoples of Mexico, 3 units
ANTH 338. Native Peoples of Central and South America, 3 units
ANTH 401. Culture and Personality, 3 units
ANTH 406. Anthropological Linguisitcs, 4 units
ANTH 407. Religion in Anthropological Perspective, 4 units
ANTH 417. Economic and Subsistence Systems, 3 units
ANTH 418. Traditional Political Systems in Contemporary Societies, 4 units
ANTH 420. Applied Anthropology and Social Change, 4 units
ANTH 421. Cultural Dynamics, 3 units
ANTH 498. Individual Study, 1-4 units
2. ECONOMICS. Prerequisite: ECON 250, Principles of Economics I, or equivalent, 4 units
Upper Division Courses:
ECON 400. Intermediate Theory (Macroeconomics), 3 units
ECON 401. Economic Thought, 3 units
ECON 405. Comparative Economic Systems, 3 units
ECON 416. Economic History of Europe, 3 units
ECON 420. Intermediate Theory (Microeconomics), 3 units
ECON 440. Economic Development, 3 units
ECON 441. International Trade, 3 .units
ECON 442. Soviet Economics, 3 units
ECON 445. Economic Planning, 3 units
ECON 454. Public Finance and Fiscal Policy, 3 units
ECON 498. Individual Study, 1-4 units
3. GEOGRAPHY. Prerequisite: One of the following:

GEOG 201. Introduction to Physical Environment, 3 units
GEOG 202. Introduction to Cultural Geography, 3 units
GEOG 240. World Regional Geography I, 3 units
GEOG 241. World Regional Geography II, 3 units
Upper Division Courses:
GEOG 330. Economic Geography, 3 units
GEOG 355. Geography of Europe, 3 units
GEOG 357. Geography of the Soviet Union and Its Satellites, 3 units
GEOG 359. Geography of Asia, 4 units
GEOG 402. Human Ecology, 3 units
GEOG 420. Geography of Underdeveloped Areas, 3 units
GEOG 430. Geography of Resource Planning, 3 units
GEOG 498. Individual Study, 1-4 units
4. HISTORY. Prerequisite: One year of lower division history, which may be satisfied by HIST 290 and 299. United States History or Western Civilization likewise fulfills the prerequisite.

Upper Division Courses:
HIST 308. Modern World History 1850-1945, 3 units
HIST 309. Modern World History Since 1945, 3 units
HIST 323. 19th Century Europe, 3 units
HIST 324. 20th Century Europe, 3 units
HIST 325. Eastern Europe Since 1453, 3 units
HIST 404. Rise and Fall of European Colonial Systems, 1830-1965, 3 units
HIST 420. Modern Spain, 3 units
HIST 430. European Intellectual History: Renaissance to the Present, 3 units
HIST 435. Modern France, 3 units
HIST 440. Modern Germany, 3 units
HIST 442.. Russia to 1917, 3 units
HIST 443. Soviet Russia, 3 units
HIST 446. Modern Britain, 1603 to the Present, 3 units
HIST 470. American Diplomatic History, 3 units
HIST 496. Directed Reading Seminar in History, 3 units
Non-Western:
HIST 351. Latin America in Traditional and Colonial Times, 3 units
HIST 352. Latin American States Since Independence, 3 units
HIST 380. East Asia in Traditional Times, 3 units
HIST 381. East Asia in the Modern World, 3 units
HIST 386. Africa Before 1800,3 units
HIST 387. Africa \(1800-1945,3\) units
HIST 388. Contemporary Africa, 1945 to the Present, 3 units
HIST 389. East Asian Intellectual History, 3 units
HIST 390. Islamic Civilization I, 600-1500, 3 units
HIST 391. Islamic Civilization II, 1500-1914, 3 units
HIST 392. Contemporary Middle East, 4 units
HIST 463. Middle East in International Affairs, 3 units
HIST 466. African Social History, 3 units
HIST 467. History of Religion in Africa, 3 units
HIST 480. Modern China, 3 units
HIST 484. Modern Japan, 3 units
HIST 486. North Africa, 3 units
HIST 498. Individual Study, l-4 units
5. POLITTCAL SCIENCE. Prerequisite: PSCI 120, American Government, 3 units
Upper Division Courses:
\begin{tabular}{cll}
-PSCI 340. & Comparative Politics: & Europe, 3 units \\
PSCI 341. & Comparative Politics: & Latin America, 4 units \\
PSCI 342. & Comparative Politics: & East Asia, 4 units \\
PSCI 345. & Comparative Politics: & USSR and Eastern Europe, \\
& & 3 units
\end{tabular}
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PSCI 346. Politics of the Developing Areas, 4 units
PSCI 360. International Relations, 4 units
PSCI 362. Soviet Foreign Policy, }3\mathrm{ units
PSCI 442. Comparative Bureaucracies, 3 units
PSCI 444. Elites and Public Policy in Latin America,
3 units
PSCI 461. National Security I, 3 units
PSCI 462. National Security II, 3 units
PSCI 463. Inter-American Affairs, 3 units
PSCI 498. Individual Study, l-4 units

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6. SOCIOLOGY. Prerequisite: SOCL 101, Introduction to Sociology, 3 units

Upper Division Courses:
SOCL 320. Social Change, 3 units
SOCL 342. Population and Demography, 4 units
SOCL 432. Sociology of Religion, 3 units
SOCL 440. Political Sociology, 3 units
SOCL 451. Personality, Culture and Social Structure, 3 units
SOCL 460. Industrial Sociology, 3 units
SOCL 498. Individual Study, 1-4 units

\section*{LIBERAL STध̣DIES}

Adyisory Committee
Max C. Norton, Ph.D., Professor of Speech and Comumication Science, Chairman William H. Hayes, Ph.D., Professor of Philosophy Richard V. Jones, Ed.D., Professor of Education
James M. Goodwin, Ph.D., Associate Professor of Physics Richard G. Mendes, Ph.D., Assistant Professor of Political Science

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:
1. It provides the academic major prerequisite for students 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
l. Basic Liberal Studies Area Requirements - Required
A. Social Sciences (See list below) . . . . . . . . 18
B. Mathematics-Science (See list below) . . . . . . 18
C. Arts-Humanities (See list below) . . . . . . . . 18
D. English-Speech (See list below) . . . . . . . . 18

This pattern of courses satisfies the general education requirements for the degree. No minor is required. For other requirements see 'General Requirements for Degrees."
2. 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.
\begin{tabular}{ll} 
Anthropology & Mathematics \\
Art & Music \\
Biological Sciences & Philosophy \\
Chemistry & Physical Education \\
Child Development & Physical Sciences \\
Drama & Physics \\
Economics & Political Science \\
English & Psychology \\
French & Sociology \\
Geography & Spanish \\
German & Speech \\
History &
\end{tabular}
3. Completion of six additional units from disciplines of the Areas A, B, C, and D, excluding the area which contains the concentration ..... 6
4. Upper Division Electives ..... 24Students may utilize these units to complete oneof the other academic majors offered by theCollege, as a second major, or may choose todistribute them as broadly as they choose.Students electing to complete a preliminary.multiple subject credential within four yearsmust use these units for professional education,including student teaching. Students electingto complete a permanent multiple subject cre-dential within five years may use the upperdivision electives to complete a minor or asecond major.
5. Health and Physical Education ..... 2
Minimum Total Units Required ..... 124

\section*{OPTIONS AVAILABLE}
1. A Bachelor of Arts in Liberal Studies with a concentration as outlined.
2. A candidate for a multiple subject credential may obtain the Bachelor of Arts in Liberal Studies with a concentration outlined, and also complete his professional education prerequisites and student teaching within four years, obtaining a preliminary credential. The full credential is awarded upon completion of a fifth year of studies. (See the Catalog section on Education.) Under this option, no more than 15 semester units of the fifth year may be required in professional education. Since the remaining units must be in academic subjects, the students may also complete a second 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 postporizing 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.

\section*{LIBERAL STUDIES AREA A}
SOCIAL SCIENCES
Units
1. PSCI 120. American Government ..... 3
2. History: One of the following ..... 3HIST 361. Colonial AmericaHIST 362. Ante-Bellum AmericaHIST 363. America After Civil WarHIST 363. America After Civil War
HIST 364. Contemporary America
3. PSYC 201. Introduction to Psychology ..... 3
4. Anthropology or Geography
One of the following: ..... 3
ANTH 200. Cultural Profiles: An Introduction to Peoples of the World
ANTH 206. Introduction to Cultural Anthropology
'GEOG 240. World Regional Geography I GEOG 241. World Regional Geography II
5. Additional work selected from the social sciences upon advisement ..... 6
Total ..... 18
LIBERAL STUDIES AREA B
MATHEMATICS-SCIENCE ..... Units
1. Core Requirements ..... 16
MATH 103-104. Elementary Foundations of Mathematics I-II, 6 units
*BIOL 101, 103. Principles of Biology,Lec \(\&\) Lab, 4 units*CHEM 100. Chemistry in the Modern World, 3 unitsPHYS 150. Energy \& Matter, Lec \(\&\) Lab, 3 units
2. One course from the following ..... 2-3ASTR 210. Descriptivè Astronomy, 3 units*BIOL 265. Environmental Biology, 2 unitsGEOL 210. Principles of Geology, 3 units*PHSC 130. Environmental Pollution, 2 units
Total ..... 18-19

\footnotetext{
*Environmental topics will be emphasized in these courses.
}

\section*{LIBERAL STUDIES AREA C}

ARTS-HIMANITIES AREA
Units
1. Three units from each of the following areas ..... 12
ART 100. Drawing, 3 units or ART 210. Art History Survey I, 3 units
DRAMA 101. Introduction to Theatre, 3 units
FOR LANG: FREN 393 or GERM 393 or SPAN 393
Literature in Translation, 3 units
MUS 119. Music Fundamentals, 3 units
2. Three units elected from one of the following areas ..... 3
ART 101. Drawing \(I\), or an additional art history course, 3 units
DRAM 230. Theatre Workshop, 1-2 units
FOR LANG: An additional 393 course, 3 units MUS 100. Introduction to Music, 3 umits PHIL 101. Introduction to Philosophy, 3 units or PHIL 110. Logic, 3 units
3. PHIL 300. Humanistic Inquiry ..... 3
Total ..... 18
LIBERAL STUDIES AREA D
ENGLISH-SPEECH ..... Units
1. Core Requirements ..... 12-13
ENGL 100. Freshman Composition, 3 units
ENGL 101. Introduction to Literature, 3 units or ENGL 150. Perspectives in World Literature, 3 units
SPCH 200. Speech Communication, 3 units
or SPCH 201. Oral Communication Processes, 4 units
SPCH 301. Language and Speech Development, 3 units
2. Additional units to be selected from the followingcourses upon advisement4-5ENGL 201. Critical Approaches to Literature,3 units
ENGL 380. Introduction to Linguistics, 3 units
ENGL 381. Introduction to HistoricalLinguistics, 3 units
ENGL 460. Tutorial Projects in English, 3 units
ENGL 462. Children's Literature, 3 units
ENGL 463. Adolescent Literature, 3 unitsSPCH 240. Oral Interpretation, 3 unitsSPCH 291. \& 391. Speech Activities, 2 units
Units
SPCH, 300. Phonetics, 3 units
SPCH 305. General Semantics, 3 units
SPCH 340. Oral Interpretation of Children'sLiterature, 3 units
SPEH 341. Oral Interpretation of Literature, 3 unitsSPCH 401. Structural and Psycholinguistics,5 units
Total ..... 18
LIBERAL STUDIES AREA E
HEALTH-PHYSICAL EDUCATION
1. HLTH 100. Health in Today's Society ..... 1
2. PHED 100. Any 100 level activity class ..... 1
Total ..... 2

\section*{MARINE SCIENCES}

\section*{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.

\section*{COURSE DESCRIPTIONS}

MSCI 301. 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 302. (MLML 101)

MSCI 302. 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 301. (MLML 102)

MSCI 303. Marine Ecology (4)
A field-oriented introduction to the inter-relationships 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 304), or consent of instructor. (MLML 103)

MSCI 304. Quantitative Marine Science (3)
The mathematical methods for the analysis of biological, chem-
ical 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. (MLMb 104)

MSCI 305. 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 306. 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, I hour; lab or field, 6 hours). Prerequisites: MSCI 305 or equivalent and approval of interviewing board. (MLML 106)

MSCI 311. 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 inter-relationships of organisms within these environments. (Lecture, 2 hours; lab or field, 6 hours) Prerequisites: College zoology or equivalent; MSCI 303 recommended. (MLML 111)

MSCI 312. 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 311, or consent of instructor; MSCI 303 recommended. (MLML 112)

MSCI 313. 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 311 or consent of instructor; MSCI 303 'recommended. (MLML 113)

MSCI 321. 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 303. (MLML 121)

MSCI 322. 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) Prerequisites: MSCI 321, cell biology or biochemistry strongly recommended, or consent of instructor. (MLML 122)

MSCI 323. 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) Prerequisites: MSCI 321, general physiology, or consent of instructor. (MLML 123)

MSCI 331. 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) Prerequisites: College botany; MSCI 303 recommended. (MLML 131)

MSCI 332. 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) Prerequisites: MSCI 301, 303 recommended. (MLML 132)

MSCI 341. Geological 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 301 and 302 (concurrent registration satisfactory). (MLML 141)

MŚCI 342. Marine Biogenic Sedimentation (3)
Interdisciplinary studies of the provenance, biologic and geologic composition of marine sediments and of the organisms contributing to their formation; sedimentary processes affecting these sediments. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCT 301 and college geology and biology or consent of instructor. (MLML 142)

MSCI 343. 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 351. Marine Meteorology (3)
Introductory descriptive course in physical processes involved in wind-genèrated surface waves, currents, temperature structure, and near shore zones of the oceans. (Lecture, 2 hours; 1 ab or field, 3 hours) Prerequisite: College algebra. (MLML 151)

MSCI 371. 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; 1ab and field, 6 hours) Prerequisites: MSCI 301, 302, 303, 304. (MLML 171)

MSCI 372. Marine Environmental Group Research (3)
Student involvement in scientific investigations; employment of scientific methodology and principles; literature surveys, experience in writeing and presenting research findings on specific projects. (Lecture, 1 hour; lab and field, 6 hours) Prerequisites: MSCI 301, 302, 303, 304. (MLML 172)

MSCI 498. 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 501. Concepts of Marine Science (3)
Study of the major principles and concepts of the marine sciences; analysis of outcstanding 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) Prerequisite: MSCI 301 'and 303 or consent of instructor. (MLML 201)

MSCI 502. :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 301, 302, and Quantitative Analysis. (MLML 202)

MSCI 503. Advanced Marine Ecology (3)
Advanced considerations of marine populations, communities and ecosystems with epphasis on current literature. (Lecture, 2 hours; lab or field, 3 hours) Prerequisites: MSCI 303 and consent of instructor; MSCI. 304 recommended. (MLML 203)

MSCI 511. 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 304 or statistics or consent of instructor. (MLML 211)

MSCI 512. 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; 1 ab and field, 6 hours) Prerequisites: MSCI 311, 312, or 313, and consent of instructor. (MLML 212)

MSCI 521. 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; \(1 a b\) and field, 6 hours) Prerequisites: MSCI 321 and consent of instructor. (MLML 221)

MSCI 522. 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 321 and consent of instructor. (MLML 222)

MSCI 531. 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 and field experimentation. (Lecture, 2 hours; 1 ab or field, 6 hours) Prerequisite: MSCI 331 or consent of instructor. (MLML 231)

MSCI 532. 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 332. (MLML 232)
sA study' of living and fossil microorganisms with emphasis on environmental significanče. (Lectúre, 22 hours; lab or field, 6 hours)' Prérequisites: MSCI 321 and college geology or consent of instructor: (MLML 241)

MSCI 542. 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 341 or consent of instructor. (MLML 242)

MSCI 551. Marine Geochemistry (4)
Geochemical processes in the oceans: therodynamics of lowtemperature 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 301, quantitative analysis, one year calculus, or consent of instructor. (MLML 251)

\section*{MSCI 552. 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 301 and consent of instructor. (MLML 252)

MSCI 561. 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, geostrophic method. (Lecture, 3 hours; lab or field, 3 hours) Prerequisite: MSCI 301, one year calculus or consent of instructor. (MLML 261)

MSCI 571. 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) Prerequisites: MSCI 303, 304, or consent of instructor. (MLML 271)

MSCI 573. 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 303, 304, or consent of instructor. (MLML 273)

MSCI 577. 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 301, 303, or consent of instructor. (MLML 277)

MSCI 585. Graduate Seminar in Marine Biology ('́)
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 586. 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)

MSCI 587. 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 598. 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)

\section*{MATHEMATICS}

\author{
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. Cburses are designed primarily to provide quality undergraduate training in the mathematical sciences and to serve the needs of majors in mathématics, the natural and social sciences, and other fields.

The department offers the degree's Bachelor of Arts, and Bachelor of Science, Mathematics. The work required for either degree presupposes seven semesters of high school level mathematics: algebra ( 2 years), plane geometry ( 1 year), and trigonometry ( \(1 / 2\) year); solid geometiry 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 general physics.

The departmenti also offers a concentration in Mathematics for the Bachelor of Arts degree in Liberal Studies.

\section*{REQUIREMENTS FOR THE BACHELOR OF ARTS OR THE BACHELOR OF SCIENCE IN MATHEMATICS}

Mathematics majors are to:
1. Complete the college requirements for a bachelor's degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 24 upper division units as specified for a Bachelor of Arts Degree or for a Bachelor of Science Degree. No more than 8 units of Winter Term only 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
Prerequisites to the major:
MATH 141, 142. Calculus I, II, 8 units
MATH 200. Introduction to Computers, 3 units
MATH 241. Multivariate Calculus, 4 units
MATH 242. Linear Algebra and Differential Equations, 4 units
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    Two of the following year sequences of courses as
    approved by the major adviser.16MATH 305, 306. Foundations of Analysis,Foundations of Geometry, 8 units
    MATH 355, 356.. Algebra I, II, }8\mathrm{ units
    MATH 415, 416. Analysis I, II, }8\mathrm{ units
    Upper division courses in mathematics as approvedby the major adviser\(\xrightarrow{8}\)
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Total. ..... 24
DEGREE MAJOR FOR THE BACHELOR OF SCIENCE, MATHEMATICSPrerequisites to the major:
MATH 141, 142. Calculus I, II, 8 units
MATH 200, Introduction to Computers, 3 units
MATH 201. Computer Programming, 2 units
MATH 241. Multivariate Calculus, 4 units
MATH 242. Linear Algebra and Differential Equations, 4 units
THE MAJOR ..... Units
Two of the following year sequences of courses as approved by the major adviser. ..... 16
MATH 325, 326. Ordinary Differential Equations, Partial Differential Equations, 8 units
MATH 365, 366. Probability \(\&\) Statistics I, II, 8 units
MATH 435, 436. Numerical Analysis I, II, 8 unitsMATH 445, 446. Introduction to OperationsResearch I, II, 8 units
Upper division courses in mathematics as approvedby the major adviser8
Total ..... 24
DEGREE MINOR IN MATHEMATICSEighteen units, including at least 10 units in upper division.
MATH 141, 142. Calculus I, II, 8 unitsUpper division courses in mathematics as approved by theminor adviser, 10 units

\section*{LIBERAL STUDIES CONCENTRATION IN MATHEMATICS*}

\section*{Units}
MATH 305. Foundations of Analysis ..... 4
MATH 306". Foundations of Geometry ..... 4
Upper division courses in mathematics as approved by the major adviser. ..... 12
Total. ..... 20

\section*{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 115. BASIC Programming, 1 unit
MATH 120. Computers and Society, 3 units
MATH 200. Introduction to Computers, 3 units
MATH 201. Computer Programming, 2 units
MATH 320. Computer Simulation Techniques, 3 units
MATH 435. Numerical Analysis I, 4 units
MATH 436. Numerical Analysis II, 4 units
OPERATIONS RESEARCH
MATH 445. Introduction to Operations. Research I, 4 units
MATH 446. Introduction to Operations Research II, 4 units

\section*{STATISTICS}

MATH 160. Statistics, 4 units
MATH 161. Statistics for Decision Making, 3 units
MATH 365. Probability and Statistics I, 4 units
MATH 366. Probability and Statistics II, 4 units

\footnotetext{
*MATH 141, 142, Calculus I, II, may substitute for MATH 103, 104, to fulfill Liberal Studies Area "B" requirements in mathematics.
}

\title{
COURSE DESCRIPTIONS
}

\section*{Lower Division}

MATH 100. 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 máthematics. Recommended for general students seeking an understanding of the nature of mathematics. Not open to students who have received credit for MATH 141, MATH 150 or their equivalent. Not applicable to the major or minór in Mathematics.

MATH 103. 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 104. Elementary Foundations of Mathematics II (3)
Continuation of MATH 103. Functions and graphs, elementary probability and statistics, Euclidean geometry, measure, introduction to analytic geometry. Recommended for students seeking an elementary teaching credential. Prerequisite: MATH 100 or MATH 103.

MATH 105. 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 100 or MATH 103.

MATH 110. 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 105.

\section*{MATH 115. 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 120. Computers and Gociety (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 implication. (Le'cture, 2 hours; laboratory, 2 hours)

MATH 141. Calculus I (4)
Inequalitites, functions and graphs, limits and continuity, the "derivative, differentiation of algebraic functions, applications of differentiation, the definite integral, conic sections. Prerequisite: MATH 110 or equivalent.

MATH. 142. 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 141.

MATH 150. 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 105 or consent of the instructor.

MATH 160. 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 100 or MATH 103.

MATH 161. 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 105.

MATH 191. 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 105.

MATH 192. 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 191 or MATH 141.

MATH 200. 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 105 or two years of high school algebra.

MATH 201. Computer Programming (2)
A continuation of MATH 200 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 200 or equivalent.

MATH 241. Multivariate Calculus (4)
Vectors in three dimensions, solid analytic geometry, partial differentiation, multiple integration, differentiation under the integral sign, vector field theory. Prerequisite: MATH 142.

MATH 242. Linear Algebra and Differential Equations (4)
Matrices and determinants, vector spaces, linear transformations, introduction to differential equations, linear systems with constant coefficients. Prerequisite: MATH 241:

MATH 295. 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. Prerequisite: Sophomore standing and consent of instructor.

MATH 297. Selected Topics offered during Winter Term (4)
Upper Division
MATH 300. History of Mathematics (3)
Origin and development of mathematical ideas from early civilizations to the present. Prerequisiṭe: MATH 142 or consent of instructor.

MATH 305. Foundations of Analysis (4)
Brief introduction to logic, naive set theory, axiomatic set theory, construction of the real number system. Recommended for elementary and junior high teachers seeking an advanced course in mathematics. (Formerlv 301, 302) Prerequisite: MATH 142 or consent of instructor.

MATH 306. Foundations of Geometry (4)
Incidence geometries, distance, separation, angular measure, congruence, non-Euclidean geometry, Euclid's Fifth Postulate, similarity, area, volume. (Formerly 303) Prerequisite: MATH 142.

MATH 320. 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 160 or 161 or ECON 320, and MATH 200.

MATH 325. 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 142.

MATH 326. Partial Differential Equations (4)
Basic concents, first order nartial 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 323) Prerequisite: MATH 241 or consent of instructor.

MATH 330. Introduction to Topology (3)
Naive set theory, metric spaces, separation properties, continuous functions, connectedness, compactness, completeness; general topological spaces, selected applications. (Formerly 332) Prerequisite:' MATH 241.

MATH 355. 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. Prerequisite: MATH 142 and junior standing.

MATH 356. 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, chäracteristic equations and inner-product spaces. Prerequisite: MATH 355.

MATH 365. Probability and Statistics I (4)
Concept of probability; concepts of random variables, expected values, variances and covariance; continuous probability distributions, binomial distribution and its limiting cases, normal distribution and Poisson distribution, Markov chains. Prerequisite: MATH 142 or consent of instructor.

MATH 366. Probability and Statistics II (4)
Sampling and sampling distributions, decision theory, estimation, testing hypothesis, simple linear regression, queuing theory. Prerequisite: MATH 365.

MATH 400. Mathematical Logic (3)
Propositional calculus, quantifiers, properties of firstorder theories including completeness theorems. Prerequisite: MATH 305 or PHIL 110 or consent of instructor.

MATH 415. Analysis I (4)
Real number system, sequences, limits, metric spaces, point set topology, continuity, differentiation, implicit and inverse function theorems. Prerequisite: MATH 242.

MATH 416. 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 415.

MATH 435. 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. Prerequisite: MATH 200 and 242.

MATH 436. 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 435.

MATH 445. Introduction to Operations Research I (4)
Vectors and matrices, classical optimization methods, theory of the simplex method, duality, post-optimal analysis. Prerequisite: MATH 142 and 200, or consent of instructor.

MATH 446. 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 445.

MATH 450. Theory of Numbers (3)
Euclid's algorithm and fundamental theorems on divisibility, prime númbers, 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 142.

MATH 460. Complex Variables (3)
Complex numbers, analytic functions, Cauchy-Riemann equations, Cauchy Theorem, Laurent Series, calculus of residues, selected applications. Prerequisite: MATH 241.

MATH 484. 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 495. 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. Prerequisite: Senior standing and consent of instructor.

MATH 496. Seminar in Mathematics (2)
Presentation and discussions of selected topics in mathematics from the current literature. Prerequisite: Consent of the instructor.

MATH 497. Selected Topics offered during Winter Term (4)
MATH "498. Individua \({ }^{1}\) '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: Senior standing and consent of instructor.

MATH 598. Individual Study (1-4)
For qualified post-baccalaureate students in need of advanced and specialized study. May be repeated for a total of 6 units. Prerequisite: Post-baccalaureate standing and consent of the instructor.

\section*{Professional Postgraduate}

MATH 603. 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 604. 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 teąchers seeking an advanced course in mathematics. (Formerly 601)

\section*{, 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
Ross Shub, M.A., 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.
3. Complete the major of not less than 33 upper division semester units; of these no more than li 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
1. 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. Fifth-year 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 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.
4. Students are required to perform in recital each semester as part of a course in applied music as determined by the instructor.
5. 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. Minimum requirements are: sight-read and sight-sing hymns, improvise a simple piano accompaniment to well-known melodies, and demonstrate knowledge of basic technique as expected in technical exercises and simple literature. Lower division students must fulfill these requirements by the end of the sophomore year. Students transferring in at the upper division level must complete these requirements by the end of the first semester of the junior year. Class instruction is offered at the beginning level in both piano and voice.
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.
8. 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.
9. During the senior year all music majors are required to present themselves in solo or chamber ensemble recital.
dEGREE MAJOR IN MUSIC
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Prerequisites to the Major
MUS 1'02. Freshman Music Seminar, 1 unit
MUS 122-123. Theory I-II, 8 units
MUS 240, 241, 244. Major Group Performance, 4 units
MUS 261, 264, 267. Applied Music (major performing medium),
4 units
MUS 290-291. History and Literature I-II, }6\mathrm{ units
Demonstrate proficiency in voice and piano (see \#6 under
"General Requirements for Music Majors and Minors").

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MUS 322-323. Theory III-IV ..... 8
MUS 327. .Basic Conducting ..... 2
MUS 338. Music History and Literature III ..... 3
MUS 440, 441, 444. Major Group Performance ..... 4
MUS 461, 464, 467. Applied Music (major performing medium)
One course selected from MUS \(340,341,342,344,345,346\) ..... 2
Complete one of the following groups of courses ..... 10
Keyboard Emphasis:MUS 325. 18th Century Counterpoint, 2 units
MUS. 326. Analysis and Composition, 2 units
MUS 345. Piano Literature, 2 units
* Electives as approved by major adviser, 4 units
Choral/Voice Emphasis:MUS 326. Analysis and Composition, 2 unitsMUS 457. Vocal/Chord Literature Seminar, 3 unitsElectives as approved by major adviser, 5 units
Instrumental Emphasis:
MUS 324. Orchestration, 2 units
MUS "329". Instrumental. Conductin'g, \(2^{*}\) units
MUS 365-366. String Technique "I-II, 2 units
MUS**367. Instrumental Techniques, 4 units
Total ..... 33
DEGREE MINOR IN MUSIC
Twenty-five units, of which 8 units must be upper division.
Lower Division ..... Units
MUS 100. Introduction to Music ..... 3
MUS 122-123. Theory I-II ..... 8
Six units selected from the following as approved by the minor adviser ..... 6
MUS 240, 241, 244. Major Group PerformanceMUS 262, 263, 267. Applied Music (may be fulfilledat upper division level by students who qualifyat that level)
Upper Divistion
MUS 330. Music Literature I
or MUS 338. Music History and Literature III ..... 3
MUS \(340,341,342,344,345,346\). Topics in Music History ..... 2
Three units selected from the following as approved by the minor adviser ..... 3
MUS 440, 441, 444. Group Performance
Total ..... 25

\section*{LIBERAL STUDIES CONCENTRATION IN MUSIC}

Twenty units, of which 15 units must be upper division.
Lower Division Units
Five units selected from the following and approved by concentration adviser . . . . . . . . . . . . 5
*MUS 100. Introduction to Music, 3 units
MUS 161. Basic Class Piano, 1 unit
MUS 162. Basic Class Guitar, 1 unit
MUS 163. Basic Class Voice, 1 unit MUS 240, 241, 244. Group Performance, 1 unit each Electives in music

Upper Division

> Fifteen units selected from the following and approved by concentration adviser
> MUS 327. Basic Conducting, 2 units
> MUS 335. Music in Early Childhood, 3 units
> MUS 336. Music in Intermediate Grades, 3 units
> MUS 340. American Music, 2 units
> MUS 365-366. String Technique I-II, 1 unit each
> MUS 367. Instrumental Techniques, 1 unit
> MUS 440, 441, 444. Major Group Performance, l unit each Electives in music

Total . . . . . . . . . . . . . . . . . . . 20

\section*{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 100, Introduction to Music; MUS 119, Music Fundamentals; MUS 161, Basic Class Piano; MUS 162, Basic Class Guitar; MUS 163, Basic Class Voice; MUS 340, American Music; MUS 341, History of Jazz; and MUS 342, Opera. The general student is welcome to participate in the various performance courses (band, orchestra, chorus, small ensembles).

\footnotetext{
*MUS 100 may not apply toward the 20 units of the concentration if used to satisfy Liberal Studies Area C requirements.
}

Lower Diviision
MUS 100. 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.

MUG 102. Freshman Music Seminar (1)
Introducing the freshman music student to standard concert repertoire. Prerequisite: Music major or minor.

MUS 119. 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 122. No prerequisite.

MUS 122. 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 \(123{ }^{\text {"m.' }}\). Theory II (4)
Continuation of MUS 122; 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) Preŗequisite: MUS 122.

MUS 161. 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.

A basic course in simple guitar skills designed for those who may or may not have any previous musical training. No prerequisite.

MUS 163. 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 240. 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 241. 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 243. 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 244. 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 245. 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.

Study and pèrformance 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 247. 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 248. 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 261.. 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. 262. 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 263. Intermediate Class Voice (1-2)
Continuation of MUS 163. 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 163 or consent of instructor.

MUS 264. Intermediate Voice (1-2)
Continuation of MUS 163. 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. Prerequi'site: Consent of instructor.

\section*{MUS 267. Intermediate Orchestral Instrunents (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 290. Music History and Literature I (3)
A survey of music history and literature spanning antiquity through the Renaissance. Designed primarily for music majors and minors. Prerequisite: MUS 102 or consent of instructor.

MUS 291. Music History and Literature II (3)
A survey of music history and literature spanning the baroque and classical periods. (Formerly 401 and 403) Prerequisite: MUS 290 or consent of instructor.

MUS 295. 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 297. Selected Topics during Winter Term (4)
Upper Division
MUS 322. Theory III (4)
Continuation of MUS 123. Emphasis will be on an understanding of 19 th 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 sephisticated drill in rhythmic, melodic and harmonic dictation. (Formerly 222, 223) Prerequisite: MUS 123.

MUS 323. Theory IV (4)
Continuation of MUS 322. Completed expioration of tertial 'harmony; 9 th, 11 th, and 13 th 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 322.

MUS 324. Orchestration (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 \(323^{*}\) or consent of instructor.

MUS 325. 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 300) Prerequisite: MUS 323.

MUS 326. 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 323.

MUS 327. 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 328. Choral Conducting (2)
A continuation of MUS 327 with emphasis on performance of standard choral literature. Study and application of the interpretive aspect of conducting. (Formerly 326) Prerequisites: MUS 327 and consent of instructor.

MUS 329. Instrumental Conducting (2)
A continuation of MUS 327 and emphasis on performance of standard instrumental literature. Study and application of the interpretive aspect of conducting. (Formerly 325) Prerequisites: MUS 327 and consent of instructor.

MUS 330. 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. Prerequisife: MUS 119 or ability to read music.

MUS 331. Music Literature II (3)
A study of music literature of the 19 th century Romantic and 20th century periods. Designed primarily for the studemt pursuing the Liberal Studies major and the general student. Pre-s requisite: MUS 119 or ability to read music.

MUS 335. Music in Early Childhood (3)
A study of music experience for young children, pre-school through third grade. Prerequisite: MUS 119 or abilility to read music.`

MUS 336. Music in Internediate Grades (3)
A study of music experiences for children in the intermediate grades, fourth through sixth. (Formerly 335) Prerequisite: MUS 119 or ability to read music.

MUS 337. Music in Junior High (3)
A study of music experiences for children in the junior high school; general music for the non-performer. (Formerly 336) Prerequisite: MUS 119 or ability to read music.

MUS 338. 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 291 or consent of instructor.

MUS 340. 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 100 or equivalent, junior standing.

MUS 341. History of Jazz (2)
An introduction to jazz with concentration on its evolution and its development in the United States. (Formerly 231) Prerequisites: MUS 100 or equivalent, junior standing.

MUS 342. Opera (2)
A study of representaţive works from English, French, German, Italian, and Russian literature. Considerations of the nature, reality, and components of this medium. Prerequisites: MUS 100 or equivalent, junior standing, consent of instructor.

MUS 344. 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 345. 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 346. Harpsichord Literature (2)
A study of the various styles and forms of harpsichord'literature from the 16 th through the 18 th centuries with some performance of smaller pieces. Prerequisites: Junior standing, consent of instructor.

MUS 362. 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 365. String Technique I (1)
Development of basic foundation for teachnique of playing violin and viola. Prerequisite: Consent of instructor.

MUS 366. String Technique II (1)
Continuation of MUS 365; however, emphasis will be placed on techniques of playing cello and double bass. Prerequisite: MUS 365 or consent of instructor.

MUS 367. 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.

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 particu-
- lar problems in composition. Public performance of student projects is required. Prerequisites: MUS 324, 325, 326.

MUS 422. Composition II (2)
Continuation of MUS 421. 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 421.

MUS 440. 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 441. 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 443. 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 444. 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 445. 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 446. 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 447. Woodwind Ensemble (1)
Study and performance of materials for small woodwind ensemblés. Studențs 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 448. 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 455. 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 457. Vocal/Choral Literature Seminar (3)
A comprehensive surviey 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 460. 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.

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 464. Advanced Voice (1-2)
Vocal 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 264 or its equivalent.

MUS 467. 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 495. Selected Topịcs 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 496. Senior Seminar (4)
Individual research in specific problems; emphasis on introduction to musicology. A comprehensive examination and research paper is part of completion of the course. Prerequisites: Senior standing and consent of instructor.

MUS 497. Selected Topics offered during Winter Term (4)
MUS 498. 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 598. 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.

NATURAL SCIENCES
The School of Natural Sciences offers a sequence of two courses, which" are team taught by faculty' from the biological sciences, chemistry, and physical sciences departments. This sequence is designéd to help the student see the relationship of the disciplines in the sciences and gain an appreciation of the importance of science.

\section*{COURSE DESCRIPTION}

NSCI 105. Natural Science I (4)
A non-mathematical descriptive súrvey of physics, chemistry, and biology emphasizing the unity of the scientific disciplines. (Lecture, 4 hours) (Formerly BIOL 105; CHEM 105, PHYS 105) No prerequisite.

NSCI 106. Natural Science II (4)
Continuation of Natural Science 105 with the inclusion of a laboratory. (Lecture, 3 hours; Laboratory, 3 hours) (Formerly BIOL 107, CHEM 107, PHYS 107) Prerequisite: NSCI 105.

\section*{PHILOSOPHY}

\section*{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.

\section*{DEGREE MINOR IN PHILOSOPHY}

Fifteen units, including nine in upper division courses, distributed as follows:

PHIL 101. Introduction to Philosophy, 3 units
or PHIL 110. Logic, 3 units . . . . . . . . . . 3
PHIL 220. Ancient Greek Philosophy, 3 units
or PHIL 223. Seventeenth \(\xi\) Eighteenth Century Philosophy, 3 units3

PHIL 330. Theory of Knowledge, 4 units or PHIL 340. Ethics, 4 units 4
PHIL 425. Recent \& Contemporary Philosophy, 4 units or PHIL 445. Philosophy of Religion, 3 units or PHIL 450. Aesthetics, 4 units . . . . . . . 3-4
PHIL 498. Individual Study . . . . . . . . . . . . . . \(1-2\)
Total . . . . . . . . . . . . . . 15

\section*{LIBERAL STUDIES CONCENTRATION IN PHILOSOPHY}

Twenty-one units distributed as follows:
*PHIL 101. Introduction to Philosophy, 3 units
or *PHIL 110. Logic, 3 units . . . . . . . . . 3
PHIL 220. Ancient Greek Philosophy, 3 units
or PHIL 223. Seventeenth \(\mathcal{G}\) Eighteenth Century
Philosophy, 3 units . . . . . . . . 3
PHIL 330. Theory of Knowledge, 4 units
or PHJI 340. Ethics, 4 units . . . . . . . . . 4
PHIL 425. Recent \& Contemporary Philosophy . . . . . . 4
PHIL 445. Philosophy of Religion . . . . . . . . . . . . 3
PHIL 450. Aesthetics . . . . . . . . . . . . . . . . . . 4
Tötal . . . . . . . . . . . . . . . 21

\footnotetext{
* May not apply toward the concentration if used to satisfy Liberal Studies Area C requirements.
}

Stưdents 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 101. Introduction to Philosophy (3)
Introduction to philbsophical method by examining traditional and contemporary philosophical problems.

PHIL 110. 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 220. Ancient Greek Philosophy (3)
A general survey of the history of Western philosophy from the pre-Socratics to the end of the Classical Period. (Formerly 250). Prerequisite: 3 units in Philosophy.

PHIL 223. Seventeenth and Eighteenth Century Philosophy (3)
A general survey of the history of Western philosophy from the Renaissance through the Eighteenth Century. (Formerly 252)
Prerequisite: 3 units in Philosophy.
PHIL 295. 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 297. Selected Topics offered during Winter Term (4)
Upper Division.
PHIL 300. Humanistic Inquiry (3)
Nature and inter-relationships 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 330. Theory of Knowledge (4)
Analysis of the concepts of knowledge, truth, belief, evidence, certainty; readings in classical and contemporary theories.
(Formerly 320) Prerequisite: 6 units in Philosophy.
PHIL 340. 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. Prerequisite: 6 units in Philosophy.

PHIL 425. Recent and Contemporary Philosophy (4)
A general survey of the history of Western philosophy from the end of the Enlightenment to the present day. Prerequisite: 9 units in Philosophy.

PHYL 445. Philosophy of Religion (3)
Analysis of religious concepts with emphasis on the logic of religious discourse. (Formerly 302 \& 303) Prerequisite: 9 units in Philosophy.

PHIL 450. Aesthetics (4)
Philosophy of art; analysis of aesthetic experience; principles of criticism. (Formerly 346 \& 347) Prerequisite: 9 units in Philosophy.

PHIL 495. 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 497. Selected Topics offered during Winter Term (4)
PHIL 498. 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 598. Individual Study (1-4)
For post-baccalaureate 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.

\title{
PHYSICAL ÉDUCATION AND HEALTH
}

\author{
Armin P. Pipho, Ph.S., Assistant Professor, Chairman \\ Zaki I. Habashi, Ed.D., Professor \\ Richard D. Conant, Ph.D., Associate Professor \\ James K. Hanny, Ed.D., Associate Professor \\ Wayne E. Nelson, Ed.D., Associate Professor \\ James C. Bowen, Ph.D., Assistant Professor \\ William M. Morris, Ed.D., Assistant 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:
1. Complete the requirements for the Bachelor of Arts Degree.
2. 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.
4. Consult with the major adviser during each advising period concerning requirements, changes in curriculum, waivers, etc.
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 101. Principles of Biology (Lec.), 3 units
BIOL 103. Principles of Biology (Lab.), 1 unit
or
ZOOL 105. Introduction to Zoology, 4 units
HLTH 100. Health in Today's Society, 1 unit
PHED 100. Physical Education Activity, 1 unit
Required courses in related fields:
200L 223. Physiology (Lec.), 3 units
Z00L 224. Physiology (Lab.), 1 unit
ZOOL 225. Anatomy (Lab.), 2 units

Required courses in major field:
Group One: All courses required Units
PHED 310. Foundations History \& Philosophy of Physical Education ..... 3
PHED 410. Curriculum Organization and Administration of Physical Education ..... 3
PHED 420. Motor Learning ..... 3
PHED 430. Measurement and Evaluation in Physical Education ..... 3
PHED 440. Kinesiology ..... 3
PHED 450. Physiology of Exercise. ..... 3
Group Two: Eight units from the following - not more than two units chosen from PHED 210-213. ..... 8
PHED 210-213. Sports Officiating, 1 unit eachPHED 350. Community Recreation, 2 unitsPHED 360. Intramuxal Programs, 2 unitsPHED 370. Sport in Society, 3 units
PHED. 380. Adapted Physical Education, 3 unitsHLTH 220. School Health and Safety, 2 unitsHLTH 300. Prevention \& Care of Athletic Injuries, 2 units
Group Three: Four units from the following: ..... 4
PHED 320. Theory of Coaching Football, 2 unitsPHED 321. Theory of Coaching Basketball, 2 unitsPHED 322. Theory of Coaching Baseball, 2 unitsPHED 323. Theory of Coaching Track and Field, 2 unitsPHED 324. Theory of Coaching Volleyball, 2 units
Group Four: Eight units from the following: ..... 8
PHED 330. Theory and Analysis of Aquatic Sports, 2 unitsPHED 331. Theory and Analysis of Combative Activities,2 units
PHED 332. Theory and Analysis of Dance, 2 unitsPHED 333. Theory and Analysis of Golf-Archery, 2 unitsPHED 334. Theory and Analysis of Gymnastics, 2 unitsPHED 335. Theory and Analysis of Racquet Sports, 2 unitsPHED 336. Theory and Analysis of Team Sports, 2 units
Total ..... 38

Twenty units approved by the minor \(r_{\text {m }}\) adivser, 16 of which must be upper division units.

\section*{Units}
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HLTH 300. Prevention and Care of Athletic Injuries. . 2
Courses from Group One of Major Prögram . . . . . . . }
Courses from Group Tw̛o of Major Prqgram . . . . . . . }
Courses from Group Three of Major Program. . . . . . . }
Courses from Group Four of Major Program. . . . . . . . }
Total . . . . . . . . . . . . . . . . . }2

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\section*{CREDIT: BY EXAMINATION}

Students with a broad, background in today's health concerns may complete HLTH 100 on a written examination basis. Activity courses may be challenged by a proficiency and written examination.

\section*{ACTIVITY COUR̀SES (1 unit each)}

All activity courses meet 2 hours per week, have no prerequisites, may not be repeated for credit, and are graded A, B, C, D, F -- with the student's option to be graded on a credit/no credit basis.
\begin{tabular}{|c|c|c|c|}
\hline FITNESS AND & CONDITIONING & \({ }^{\text {\% PHED }} 129\). & Canoeing \\
\hline & & PHED 130. & Fencing \\
\hline PHED 103. & Cycling & PHED 132. & Advanced Fencing \\
\hline PHED 105. & Jogging - Aerobics & PHED 133. & Golf \\
\hline PHED 107. & Judo & PHED 135. & Advanced Golf \\
\hline PHED 108. & Karate & PHED 136. & Gymnastics \\
\hline PHED 111. & Personal Defense (W) & PHED 138. & Advanced Gymnastics \\
\hline PHED 113. & Weight Training (M) & PHED 145. & Skiing \\
\hline PHED 114. & Weight Training, (W) & PHED 148. & Tennis \\
\hline PHED 116. & Wrestling & PHED 149. & Intermediate Tennis \\
\hline & & PHED 150. & Advanced Tennis \\
\hline INDIVIDUAL & AND DUAL SPORTS & & \\
\hline & & AdUATICS & \\
\hline PHED 120. & Archery & & \\
\hline PHED 122. & Adyanced Archery. & PHED 161. & Swimming \\
\hline PHED 123. & Badminton & PHED. 162. & Intermediate Swimming \\
\hline PHED 125.* & Advanced Badminton & PHED 163. & Advanced Swimming \\
\hline PHED 126. & Bowling & PHED 164. & Life Saving \\
\hline
\end{tabular}

TEAM SPORTS
\begin{tabular}{ll} 
PHED 170. & Baseball \\
PHED 172. & Advanced Baseball \\
PHED 174. & Basketball (M) \\
PHED 176. & Advanced Basketball (M) \\
PHED 177. & Basketball (W) \\
PHED 178. & Field Hockey \\
PHED 180. & Advanced Field Hockey \\
PHED 182. & Soccer \\
PHED 184. & Advanced Soccer \\
PHED 186. & Track
\end{tabular}

PHED 187. Volleyball
PHED 188. Intermediate Volleyball
PHED 189. Advanced Volleyball
(M) DANCE

PHED 190.' Ballet
PHED 192. Modern Dance
PHED 194. Advanced Modern Dance
PHED 195. Social Dance
PHED 197. Folk Dance

COURSE DESCRIPTIONS
Lower Division
PHED 210-213. Sports Officiating (1)
The study and interpretation of rules for various sports; procedures, mechanics and practice in officiating. PHED 210, Football; PHED 211, Basketball; PHED 212, Baseball; PHED 213, Track and Field. (Formerly 200)

PHED 250-257. Intercollegiate Athletics (1)
Theory, practice, and game rerformance of competitive intercollegiate athletics. Limited to students trying out for the varsity or freshmen-junior varsity teams. May be repeated for credit. (Formerly 251) Prerequisite: Consent of instructor. PHED 250, Baseball; PHED 251, Basketbal1; PHED 252, Cross Country; PHED 253, Golf; PHED 254, Tennis (M); PHED 255, Tennis (W); PHED 256, Track and field; PHED 257, Volleyball.

PHED 295. 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 297. Selected Topics offered during Winter Term (4)
Upper Division
PHED 310. 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 319. Curriculum and Instruction; Physical Education (3)
Preparation for teaching in physical education in secondary schools. Cuprrent trends and practices, instructional materials and techniques. Prerequisites: EDUG 302 or equivalent, consent of credential adviser or teaching experience. (Same as EDUC 319)

PHED 320-324. Theory of Coaching (2)
Principle and coaching techniques underlying participation in competitive interscholastic athletics. (Lecture, 1 hour; Laboratory, 2 hours) PHED 320, Football; PHED 321, Basketball; PHED 322, Baseball; PHED 323, Track and Field; PHED 324, Volleyball. Prerequisite: Limited to physical education majors and minors or those with consent of instructor.

PHED 330-336. 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 330, Aquatic Sports; PHED 331, Combative Activities; PHED 332, Đance; PHED 333, Golf-Archery; PHED 334, Gymnastics; PHED 335, Racquet Sports; PHED 336, Team Sports. Prerequisite: Limited to physical education majors and minors or those with consent of instructor.

PHED 340. 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 350. Community Recreation (2)
'Ştudy of leisure in a technological society, recreational programs, and recreational organizations.

PHED 360. Intramural Programs (2)
The ofganization, administration, and motivation of intramural activities for schools including practical field experience.

PHED 370. 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:

FHRD 380. 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 225 is recommended.

PHED 410. Curriculum Organization and Administration of Physical Education (3)

Curriculum development and evaluation in school programs of physical education including the instructional program, intramural sports, and interscholastic athletics. Administrative policies and procedures pertaining to staff, facilities, equipment, budget, and program. Identification of the content of a well-rounded physical education program; instructional time allotments, unit planning, staff utilization, intramurals, extramurals, and interscholastic athletics. Prerequisite: Junior standing.

PHED 420. 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 430. Measurement and Evaluation in Physical Education (3)
A study of practical measurements for evaluation in physical education with emphasis on fitness and sports skills. (Formerly 480) Prerequisite: Junior standing.

PHED 440. 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 225 and junior standing. PHYS 150 is recommended.

PHED 450. Physiology of Exercise (3)
Study of different body systems and the effects of physical exercise on each system and physical performance. (Lecture, 2 hours; Laboratory, 3 hours) (Formerly 487) Prerequisite: ZOOL 223, 224, and junior standing.

PHED 490. 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 495. 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 497. Selected Topics offered during Winter Term (4)
PHED 498. 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.

\section*{HEALTH}

HLTH 100. 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 220. 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 300. 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)


\author{
Tai-Low Chow, Ph.D., Associate Professor, Chairman Carl Gatlin, Ph.D., Professor of Applied Sciences Walter John, Jr., Ph.D., Professor 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 offer the degree of Bachelor of Arts, Physics, and Bachelor of Arts, Physical Sciences. A minor in physics or in physical sciences is also available.

The curriculum in physics is designed to give the student a thorough understanding of the fundamentals of physics and to prepare him for graduate school, a careep in scientific research and development, or industrial work.

The programs in physical sciences are flexible so that students with a variety of interests in physical sciences can be accommodated. A number of specializations are available within the physical sciences B.A. degree, including the study of environmental science, earth science and astronomy, pre-professional science, and physical oceanography.* The programsin physical sciences are thus particularly appropriate for students planning to teach science in secondary schools, to work in industry, or to seek entrance to medical school, dental school, and other health sciences.

A student entering either program is expected to have completed the following high school courses: three years of mathematics, one year of physics, and one year of chemistry. Any deficiencies may, be made up by proper selection of lower division courses. The student interested in a major or minor in physics or physical sciences should consult with an adviser in the physical sciences department for proper selection of courses.

\section*{REQUIREMENTS FOR BACHELOR OF ARTS, PHYSICS}

Physics 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 24 upper division units' of physics; no more than 6 units GR graded course work may apply toward the major.
4. No minor is required.

\section*{DEGREE MAJOR IN PHYSICS}

Prerequisites to the Major
Required courses in major field
PHYS 225, 226. General Physics I-II, 8 units
PHYS 235, 236. General Physics Laboratory I-II, 2 units

\footnotetext{
*Upper division course work offered at Moss Landing Marine Laboratories
}

Required courses in supporting field:
(These courses may also apply toward a minor in Mathematics
or Chemistry)
PHSC 120. Current Developments in Physical Science, 2 units MATH 141, 142. Calculus I-IT, 8 units
MATH 241. Multivariate Calculus, 4 units
CHEM 110, 111. Principles of Chemistry I-II, 10 units

\section*{THE MAJOR}

Units
PHYS 301. Introduction to Theoretical Physics I . . . . . 3
PHYS 314, 315. Analytical Mechanics I-II . . . . . . . . 5
PHYS 332, 333. Electricity and Magnetism I-II . . . . . . 5
PHYS 352. Modern Physics . . . . . . . . . . . . . . . . 3
PHYS 353. Quantum Mechanics I . . . . . . . . . . . . . . 3
PHYS 410. Advanced Physics Laboratory . . . . . . . . . . 2
PHYS 453. Thermal and Statistical Physics I . . . . . . . 3

Total . . . . . . . . . . . . . . . . . . . . . 24

The following courses are recommended for students who are planning to attend graduate school:

PHYS 302. Introduction to Theoretical Physics II, 3 units
PHYS 354. Quantum Mechanics II, 3 units
PHYS 445. Nuclear Physics, 3 units
PHYS 454. Thermal and Statistical Physics II, 2 units
PHYS 456. Solid State Physics, 3 units
PHYS 490. Modern Optics, 3 units
MATH 325. Ordinary Differential Equations, 4 units
MATH 326. Partial Differential Equations, 4 units

\section*{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.

REQUIREMENTS FOR BACHELOR OF ARTS, PHYSICAL SCIENCES
Physical Science 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 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.

Prerequisites to the Major
Required courses in major field
PHSC 120. Current Developments in Physical Science, 2 units
CHEM 110, 111. Principles of Chemistry I-II, 10 units
PHYS 225, 226. General Physics I-II, 8 units
PHYS 235, 236. General Physics Laboratory I-II, 2 units
With consent of adviser, PHYS 110, 111, Basic Physics I-II, 10 units, may be substituted for PHYS 225, 226, General Physics; and PHYS 235, 236, General Physics Laboratory.
Two of the following courses and laboratory where available:
ASTR 210. Descriptive Astronomy, 3 units, and ASTR 211, Astronomy Laboratory, 1 unit
GEOL 210. Principles of Geology, 3 units, and GEOL 211, Geology Laboratory, 1 unit
PHSC 130. Environmental Pollution, 2 units
A lower division biological sciences course may be substituted for one of the above courses with consent of adviser for premedical, predental, and other health sciences students.

Required courses in supporting field
MATH 141, 142. Calculus I-II, 8 units
With consent of adviser, MATH 200, Introduction to Computers, 3 units; and MATH 160, Statistics, 4 units; may be substituted for MATH 141, 142, Calculus I-II.

THE MAJOR
PHYS 410. Advanced Physics Laboratory, 2 units
With consent of adviser, PHYS 420, Electronics Instrumentation Laboratory, 2 units, or upper division chemistry lab may be substituted for 1 unit PHYS 410, Advanced Physics Lab.

Three of the following:
ASTR 300. Contemporary Astronomy, 3 units
GEOL 300. Physical and Environmental Geology, 3 units
PHSC 300. Physical Science of the Environment, 3 units
PHYS 352. Modern Physics, 3 units
An upper division course in biological sciences may be
substituted for one of the above courses with consent of adviser for premedical, predental, and other health sciences students.

Complete one of the following groups of courses (not less than 11 upper division units of physical sciences):
1. Environmental Science

Required Courses
PHSC 300. Physical Sciences of the Environment, 3 units PHSC 410. Environmental Science Laboratory, 2 units PHSC 498. Individual Study, 3-6 units
Elective courses to be selected with consent of adviser, 1-3 units
Additional upper division electives in biological sciences or mathematics are also highly recommended: MATH 201, Computer Programming; MATH 445, Introduction to Operations Reseărch I; BIOL 363, Ecology.
2. Earth Science and Astronomy

11 units to be selected from the following:
GEOL 300. Physical and Environmental Geology, 3 units
GEOL 420. Earth Science, 4 units
GEOL 450. Field Geology, 4 units
ASTR 300. Contemporary Astronomy, 3 units ASTR 320. Planetary Science, 3 units
3. Physical Oceanography

Upper division courses in marine sciences may be taken at Moss Landing Marine Laboratories. (See Marine Sciences section of the Catalog.)
4. Pre-professional science

Required courses:
PHYS 310. Medical Physics, 3 units
CHEM 301. Organic Chemistry I, 3 units CHEM 303. Organic Chemistry Lab I, l unit
Elective courses:
Four units to be selected with consent of adviser. Recommended courses are CHEM 302, Organic Chemistry II; CHEM 304, Organic Chemistry Lab II; PHYS 311, Medical Physics Lab.
Students planning to enter medical, dental, or other health sciences, should take this group, plus suitable upper division courses in biological sciences.

\section*{degree minor in physical sciences}

Consists of 18 units in physical sciences as approved by the minor adviser to include 8 units in the upper division.

\section*{COURSE DESCRIPTIONS}

PHYSICS
Lower Division
PHYS 110. Basic Physics I (5)
Principles of physics concerned with mechanical motion, energy, heat, electricity and magnetism, waves, light, optics, atoms, the nucleus. Recommended for general students and for students
preparing for biology or medicine. (Lecture, 3 hours; discussion, 1 hour; laboratory, 3 hours) Prerequisites: Algebra, plane geometry, and trigonometry at the high school level, or consent of instructor.

PHYS 111. Basic Physics II (5)
Continuation of PHYS 110. Prerequisite: PHYS 110.
PHYS 150. 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)

PHYS 225. General Physics I (4)
General physics using the calculus, for science students. Mechanics, electricity, magnetism, heat, wave motion, light. (Lecture, 3.hours; discussion, l hour) Prerequisite: Concurrent enroliment in MATH 142.

PHYS 226. General Physics II (4)
Continuation of PHYS 225. Prerequisite: PHYS 225.
PHYS 235. General Physics Laboratory I (1)
Laboratory to accompany PHYS 225. Prerequisite: PHYS 225 or concurrent enrollment in PHYS 225.

PHYS 236. General Physics Laboratory II (1)
Laboratory to accompany PHYS 226. Prerequisite: PHYS 226 or concurrent enrollment in PHYS 226.

PHYS 295. 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 297. Selected Topics offered during Winter Term (4)
Upper Division
PHYS 301. Introduction to Theoretical Physics I (3)
Study of various physical problems and their solution. Topics may include electromagnetic and gravitational fields, systems with symmetry, heat and fluid flow, wave motion, and quantum mechanics.'

Additional topics. of current interest may be added. Prerequisite: PHYS 226.

PHYS 302. Introduction to Theoretical Physics II (3)
Continuation of PHYS 301. Prerequisite: PHYS 301.
PHYS 310. Medical Physics (3)
A survey of current applications of physics to medicine: radiography, nuclear medicine, ultrasound, cryogenics, lasers, electron microscope, electronic techniques, etc. Both basic fundamentals and applications will be studied. Prerequisites: PHYS 110 and 111 or consent of instructor.

PHYS 311. Medical Physics Laboratory (1)
Optional 1aboratory accompanying PHYS 310. (Laboratory, 3 hours)

PHYS 314. Analytical Mechanics I (3)
Fundamental concepts of mechanics, including dynamics of particles and rigid bodies, gravitation, Lagrangian and Hamiltonian dynamics, theory of oscillations, and the wave equation. Prerequisites: PHYS 301, MATH 142, or consent of instructor.

PHYS 315. Analytical Mechanics II (2)
Continuation of PHYS 314. Prerequisite: PHYS 314.
PHYS 332. Electricity and Magnetism I (2)
Electrostatics, magnetostatics, theory of the electromagnetic field, including Maxwell's equations and electromagnetic waves, electric and magnetic properties of materials. Prerequisite: PHYS 301 or consent of instructor.

PHYS 333. Electricity and Magnetism II (3)
Continuation of PHYS 332. Prerequisite: PHYS 332.
PHYS 337. Theory of Relativity (3)
Elements of the Special and General Theories of Relativity, including the Michelson-Morley experiment, the Lorentz transformation, and experimental tests of general relativity and recent developments. Prerequisites: PHYS 333 and MATH 142.

PHYS 352. Modern Physics (3)
Origin of quantum theory; atomic structure, X-rays, and the elements of nuclear physics and particle physics. Prerequisite: PHYS 226.

PHYS 353. 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 352 or consent of instructor.

PHYS 354. Quantum Mechanics II (3)
Continuation of PHYS 353. Prerequisite: PHYS 353.
PHYS 410: Advanced Physics Laboratory (1)
Project type experiments in mechanics, heat, electricity, and magnetism, optics, atomic physics, nuclear physics, etc. Prerequisite: Upper division standing or consent of instructor. This course may be repeated for a maximum of 6 units.

PHYS 420. Electronics Instrumentation Laboratory (2)
Introduction to basic electronics and fundamental electronic instruments used in scientific measurements, with a view to understanding their use and operation rather than their construction. In addition, the student will study the experimental setup in an actual system used in his field of interest, chosen from the current literature. (Lecture l hour, laboratory 3 hours) Prerequisite: Upper division standing or consent of instructor.

PHYS 445. 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 352 or consent of instructor.

PHYS 453. 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 226.

PHYS 454. Thermal and Statistical Physics II (2)
Continuation of PHYS 453. Prerequisite: PHYS 453 or consent of instructor.

PHYS 456. 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 352 or PHYS 453.

PHYS 490. Modern Optics (3)
Principles of geometrical optics; reflection, refraction, polar-. ization, coherence and interference, Kirchhoff's diffraction theory, Fourier methods in optics, optics of solids, lasers and holography. Prerequisite: PHYS 226.

PHYS 493. 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 226.

PHYS 495. 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 497. Selected Topics offered during Winter Term (4)
PHYS 498. 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 598. 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.

Lower Division
PHSC 120. Current Developments in Physical Science (2)
Seminar involving students and faculty members in discussions of exciting new developments in physics and physical science. Designed to acquaint the student with the various branches of physical science.

PHSC 130. 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.

PHSG 295. 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.

PHSC 297. Selected Topics offered during Winter Term (4)
Upper Division
PHSC 300. Physical Science of the Environment (3)
Fundamental aspects of environmental science with consideration of the various sources of energy and their effect on the environment. Topics include air pollution and associated atmospheric science, nuclear energy and radioactive pollution, thermal pollution, and other environmental subjects. Prerequisite: Upper division standing or consent of instructor.

PHSC 410. Environmental Science Laboratory (2)
Experimental techniques used in making environmental measurements including topics in air pollution, meteorology, noise, and radioactivity. Students will perform experiments in areas of their interest. (Lecture, 1 hour; laborațory, 3 hours) Prerequisite: PHSC 130 or PHSC 300 or consent of instructor.

PHSC 495. 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.

PHSC 497. Selected Topics offered during Winter Term (4)
PHSC 498. 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.

PHSC 598. 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.

\section*{ASTRONOMY}

\author{
Lower Division
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ASTR 210. 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 sun, stars, stellar evolution; galaxies and cosmology.

ASTR 211. Astronomy Laboratory (1)

Telescope observations of the moon, planets, their satellites, and sunspots. Optical experiments related to astronomy. (Laboratory, ' 3 hours) Prerequisite: ASTR 210 or concurrent enrollment in ASTR 210.

ASTR 297. Selected Topic's offered during Winter Term (4)

Upper Division

ASTR 300. Contemporary Astronomy (3)
Study of stars, galaxies, and the physical processes taking place in the universe. Prerequisite: ASTR 210.

ASTR 320. Planetary Science (3)
Study of the structure of the planets, their atmospheres, interplanetary plasma, theories of origin and evolution of the planets and of planetary atmospheres, explorations of planetary surfaces (by means of optical, infrared, radio and radar observations), new developments of space programs. Additional topics of current interest may be added. Prerequisite: ASTR 210 or consent of instructor.

ASTR 497. Selected Topics offered during Winter Term (4)
GEOLOGY
Lower Division
GEOL 210. 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.

GEOL 211. Geology Laboratory (1)
Laboratory to accompany GEOL 210; one or more field trips. (Laboratory, 3 hours) Prerequisite: GEOL 210 or concurrent enrollment in GEOL 210.

GEOL 297. 'Selected Topics offered during Winter Term•(4)
Upper Division
GEOL 300. 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 210.

GEOL 420. Earth Science (4)
Study of physical properties of rocks, earth's internal structure, seismic techniques of earthquakes, gravity and magnetic properties of the earth. Prerequisites: GEOL 210 and 211 or consent of instructor.

GEOL 450. Field Geology (4)
Study of geological maps and preparation of local maps for use in field study; locate and study specific geologic structures. Prerequisites: GEOL 210 and 211 or consent of instructor.

GEOL 497. Selected Topics offered during Winter Term (4)

POLITICAL SCIENCE

\author{
Paul F. Magnelia, Ph.D., Associate Professor, Chairman John M. Hess, M.A., Associate Professor Gary C. Shaw, Ph.D., Associate Professor Kenneth Entin, Ph.D., Assistant Professor \\ Steven W. Hughes, Ph.D., Assistant Professor \\ Richard G. Mendes, Ph.D., Assistant Professor John T. Wold, 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 pre-professional 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 pre-law 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. Pre-law 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 organizations. These courses are combined with courses in related disciplines.

REQUIREMENTS FOR THE BACHEL̇OR OF ARTS, POLITÍCAL SCIENCE
Political Science 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 26 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 120. American Government, 3 units
PSCI 200. Introduction to Political Science, 3 units (Recommended)
or
PSCI 201. Modern Political Ideologies, 3 units
Required courses in supporting fields: Two of the following:
ANTH 206. Introduction to Cultural Anthropology; 3 units ECON 250. Principles of Economics I, 4 units
GEOG 240 or 241. World Regional Geography I or II, 3 units SOCL 101. Introduction to Sociology, 3 units

Strongly recommended:
MATH 160. Statistics, 4 units
THE MAJOR'
PSCI 300. Classics of Political Philosophy . . . . . .
PSCI 310. Scope and Methods of Political Science . . .
4
degree minor in political science
Sixteen units approved by the minor adviser are required, including at least 10 units in upper division courses.

\section*{LIBERAL STUDIES CONCENTRATION IN POLITICAL SCIENCE}

Twenty units, including at least 17 upper division units.
Lower Division Units
\[
\begin{array}{cl}
\text { PSCI 201. Modern Political Ideologies, } 3 \text { units } \\
\text { or } & \text { PSCI } 260 \text {. Issues in International Politics . } 3
\end{array}
\]

Upper Division
Two courses selected from the following . . . . . . . 8-9
PSCI 340. Comparative Politics: Europe, 3 units PSCI 341. Comparative Politics: Latin America, 4 units
PSCI 342. Comparative Politics: East Asia, 4 units
PSCI 345. Comparative Politics: USSR \(\frac{G}{q}\) Eastern Europe, 3 units
PSCI 346. Politics of Developing Areas, 4 units
Two courses selected from the following . . . . . . . 8-9
PSCI 320. The Chief Executive, 3 units
PSCI 321. Legislative Process, 3 units
PSCI 323. Political Parties \(\&\) Interest Groups, 4 units
PSCI 325. Public Opinion \(\&\) Voting Behavior, 4 units
PSCI 331. Urban Politics, 4 units
Total . . . . . . . . . . . . . . . . . 20

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 300. Classics of Political Philosophy, 4 units
PSCI 303. American Political Thought, 2 units
PSCI 305. Marxist Political Thought, 2 units
PSCI 306. Contẽ̀mporary Political Thought, 2 units
PSCI 310. Scope and Methods of Political Science, 4 units
PSCI 311. Research Design Seminar in Political Science, 3 units
PSCI 402. Selected Topics in Political Theory, 1-3 units
AMERICAN POLITICS
PSCI 320. The Chief Executive, 3 units
PSCI 321. Legislative Process, 3 units
PSCI 322. Constitutional Law, 4 units
PSCI 323. Political Parties and Interest Groups, 4 units
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    PSCI 325. Public Opinion and Voting Behavior, 4 units
    PSCI 326. Urban Justtice, 3 units
    PSCI 330. Introduction to Public Administration, 3 units
    PSCI 331. Urban Politics, 4 units
    PSCI 333. California Politics, 3 units
    PSCI 420. Problems in Civil Liberties, }3\mathrm{ units
    PSCI 421. The Judicial Process, 3 units
    PSCI 422. Simulation-Supreme Court Decision-Making, 3 units
    PSCI 430. Organization Theory, 4 units
    PSCI 432. Minority Politics, 3 units
    PSCI 434. Public Administration Internship, 3 units
    COMPARATIVE POLITICS
PSCI 340: Comparative Politics: Europe, }3\mathrm{ units
PSCI 341. Comparative Politics: Latin America, 4 units
- PSCI 342. Comparative Politics: East Asia, 4 units
PSCI 345: Comparative Politics: USSR and Eastern Europe,
3 units
PSCI 346. Politics of the Developing Areas, 4 units
PSCI 442. Comparative Bureaucracies, 3 units
PSCI 444. Elites and Public Policy in Latin America, 3 units
PSCI 490. Seminar in Criminal Justice, }3\mathrm{ units
PSCI 495. Selected Topics in Political Science, l-5 units
PSCI 496. Senior Seminar, }3\mathrm{ units
PSCI 498. Individual Study, 1-4 units
INTERNATIONAL RELATIONS
PSCI 360. International Relations, 4 units
PSCI 362. Soviet Foreign Policy, }3\mathrm{ units
PSCI 461. National Security I, 3 units
PSCI 462. National Security II, 3 units
PSCI 463. Inter-American Affairs, 3 units
INTERDISCIPLINARY
PSCI 470. The Political Novel, 4 units
COURSE DESCRIPTIONS
Lower Division
PSCI 120. 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 200. 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)

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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 260. 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 295. 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 297. Selected Topics offered during Winter Term (4)
Upper Division
PSCI 300. Classics of Political Philosophy (4)
A critical review of the major works in political philosophy. (Formerly 300, 301) Prerequisite: PSCI 120.

PSCI 303. American Political Thought (2)
Main trends of American political thinking from colonial times to the present. (Formerly 400) PSCI 300 recommended.

PSCI 305. Marxist Political Thought (2)
Examination of the foundations and philosophical assumptions of Marxist theory. PSCI 300 recommended.

PSCI 306. 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 300 recommended.

PSCI 310. 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 to be discussed include the philosophy of the scientific method, the structure of theory and models, the measurement of political
science data, the analysis of political data, the proper techniques for reporting analyses, and the use of data processing equipment to handle large amounts of information. Prerequisite: PSCI 120; MATH 160 recommended.

PSCI. 311. 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 310.

PSCI' 320. 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. Prerequisite: PSCI 120.

PSCI 321. 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 120.

PSCI 322. 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 120.

PSCI 323. 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 120.

PSCI 325: 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 120.

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 120.

PSCI 330. Introduction to Public Administration (3)
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. Prerequisite: PSCI 120.

PSCI 331. 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 455) Prerequisite: PSCI 120.

\section*{PSCI 333. 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 120.

PSCI 340. 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 120.

PSCI 341. 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 120.

PSCI 342. 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 120.

PSCI 345. Comparative Politics: USSR and Eastern Europe (3)
An, analysis of government, politics, and pqlitical development in communist political systems. Primary focus in the course will be on the USSR. (Formerly 317) Prerequisite: PSCI 120.

PSCI 346. 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 120.

PSCI 360. International Relations (4)
Introduction to the elements of international relations. Work in lab simulation will be an integral part of the course. Prerequisitê: PSCI 120.

PSCI 362. 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 120.

PSCI 402. 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 300 recommended.

PSCI 420. 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 i20. PSCI 322 recommended.

PSCI 421. 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 120. PSCI 322 strongly recommended.

PSCI 422. Simulation-Supreme Court Decision-Making
A study of decision-making in the United States Supreme Court through the use of discussions and simulations of the decisional process. Prerequisite: PSCI 120.

PSCI 430. 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 120. PSCI 330 recommended.

PSCI 431. 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 120. PSCI 330 recomnended.

PSCI 432. 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 120. PSCI 331 recommended.

PSCI 434. 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 120, 330.

PSCI 442. 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 120. PSCI 330 recommended.

PSCI 444. 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 120.

PSCI 461. National Security I (3)
Study of national security decision-making with emphasis on the roles played by civilian executive officials, the military, Congress, and industry. Survey and critical analysis of American defense policy. Prerequisite: PSCI 120. PSCI 360 recommended.

PSCI 462. National Security II (3)
Study of contemporary international tensions and conflicts in their political, economic, and miljtary aspects; the role of alliances and other security systems; disarmament and arms control; strategic doctrines and national defense policies. Prerequisite: PSCI 120. PSCI 360 recommended.

PSCI 463. Inter-American Affairs
A study of political relations among the countries of the western hemisphere with particular emphasis on U.S.-Latin American relations. Prerequisite: PSCI 120.

PSCI 470. The Political Novel (4)
An examination of the ways in which political activity and belief give shape to certain novels, particularly in America:

PSCI 490. 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 120 and consent of instructor.

PSCI 495. 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 496. 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 497. Selected Topics offered during Winter Term (4)
PSCI 498. 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.

\section*{PSYCHOLOGY}

Lewis E. Holt, Ph.D., Associate Professor, Chairman V. Kenneth Shrable, Ph.D., Professor .

Wm. Edgar Boblitt, Ph.D., Visiting Lecturer in Psychology Lee Ann Elliott, Ph.D., Associate Professor W. Mack Goldsmith, Ph.D., Associate Professor Stanley E. Sherman, Ph.D., Associate Professor
Thomas A. Gentry, Ph.D., Assistant Professor
Gary D. Novak, M.A., 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.
3. 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.

\section*{DEGREE MAJOR IN PSYCHOLOGY}

Prerequisites to the Major:
PSYC 201. Introduction to Psychology, 3 units, or equivalent
PSYC 202. Introduction to Psychological Methods, 3 units, or equivalent

Required courses in supporting fields:
1. ANTH 206. Introduction to Cultural Anthropology, 3 units or SOCL 101. Introduction to Sociology, 3 units
2. BIOL 101. Principles of Biology, 3 units

BIOL 103. Principles of Biology, Laboratory, l unit
or ZOOL•105. Introduction to Zoology, 4 units
Recomnended course in supporting field:
MATH 160. Statistics, 4 units
THE MAJOR Units
PSYC 300. Experimental Methods and Design, 4 units . . : 4
At least 2 laboratory courses from the following . . . . . 2
PSYC 330. Social Psychology Laboratory, 1 unit
PSYC 349. Perception and Cognition Laboratory, l unit
PSYC 369. Learning and Motivation Laboratory, 1 unit
Upper division courses in psychology as approved by major adviser 20

Total . . . . . . . . . . . . . . . . . . . . . 26
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 313. Human Development, 3 units

PSYC 316. Introduction to Psychological Testing, 3 units
PSYC 379. Introduction to Counseling Theory, 3 units
PSYC 415. Learning Disabilities, 3 units
PSYC 475. Applied Behavior Analysis with Learning Handicapped, 3 units
PSYC 478. Behavioral Engineering in Educational
Settings, 3 units
Group II
PSYC 309. Comparative Animal Behavior, 3 units
PSYC 310., Introduction to Physiological Psychology, 4 units
PSYC 311. Behavior Genetics, 3 units
PSYC 352. Principles of Sensory Processes, 4 units
PSYC 472. Experimental Analysis of Behavior, 3 units
Group III
PSYC 331. Introduction to Social Psychology, 3 units
PSYC 332. Introduction to Personality, 3 units
PSYC 335. Introduction to the Study of Abnormal Behavior, 3 units

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

\section*{Lower Division}

PSYC 201. Introduction to Psychology, 3 units
PSYC 202. Introduction to Psychological Methods, 3 units
Upper Division
Courses as approved by minor adviser, 12 units.

\section*{LIBERAL STUDIES CONCENTRATION IN PSYCHOLOGY}

A liberal arts concentration in the area of Psychology must include the following course:

PSYC 202. Introduction to Psychological Methods, 3 units
The student must also complete a minimum of seventeen 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.

\section*{TEACHING CREDENTIALS}

Psychology majors interested in teaching credentials are referred to the Education section of the catalog for a description * of teaching credential programs.

\section*{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:
1. 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).
3. 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.

\section*{REQUIREMENTS FOR THE DEGREE}
1. All students are required to complete the appropriate 50 semester units or their equivalent.
2. 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 594. Field Work, 4 units
PSYC 599. Master's Thesis, 6 units
B. Genęral Principles (14 units)

PSYC 472. Experimental Analysis of Behavior, 3 units
PSYC 482. Group Dynamics Seminar, 3 units
PSYC 500. Proseminar I (Applied Research Methods), 4 units
PSYC 501. Proseminar II (Advanced Learning), 4 units
C. Clinical Principles ( 10 units)

PSYC 436. Seminar in Clinical and Abnormal Psychology, 3 units
PSYC 477. Introduction to Counseling Techniques, 3 units
PSYC 503. Psychodiagnostics I, 3 units
PSYC 504. Psychodiagnostics I Laboratory, 1 unit

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 all of the courses listed under the School Psychology heading.

\section*{CLINICAL PSYCHOLOGY CONCENTRATION}
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PSYC 415. Learning Disabilities, 3 units
PSYC 475. Applied Behavior Analysis with Learning
Handicapped, 3 units
PSYC 478. Behavioral Engineering in Educational Settings,
3 units
PSYC 513. Advanced Human Development, 3 units
PSYC 564. Advanced Seminar in Behavior Change, 3 units
PSYC 572. Behavioral Consultation, 2 units
PSYC 591. Practicum in Counseling and Diagnostics, 2 units
PSYC 593. Practicum in Behavior Modification, 2 units

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SCHOOL PSYCHOLOGY CONCENTRATION
EDUC 504. Philosophy of Education, 2 units EDUC 550. Organization of Public Education, 2 units EDUC 552. Legal and Financial Aspects of Education, 3 units EDUC 554. Exceptional Children and Youth, 3 units EDUC 576. Pupil Personnel Services Seminar, 2 units PSYC 505. Psychodiagnostics II, 3 units PSYC 506. Psychodiagnostics II Laboratory, l unit PSYC 513. Advanced Human Development, 3 units PSYC 572. Behavioral Consultation, 2 units PSYC 578. Advanced Counseling, 3 units PSYC 591. Practicum in Counseling and Diagnostics, 2 units PSYC 594. Field Work, 2 units

\section*{CORRECTIONAL PSYCHOLOGY CONCENTRATION}

SOCL 412. Sociology of Crime and Delinquency, 3 units
SOCL 413. Sociology of Correction, 4 units
SOCL 414. Sociology of Law, 3 units
SOCL 425. Criminal Justice II, 3 units
SOCL 500. Seminar in Criminology, 3 units
PSCI 490. Seminar in Criminal Justice, 3 units
PSYC 591. Practicum in Counseling and Diagnostics, 2 units
PSYC 594. Field Work, 2 units
COUNSELING CONCENTRATION
PSYC 513. Advanced Human Development, 3 units
PSYC 572. Behavioral Consultation, 2 units
PSYC 578. Advanced Counseling, 3 units
PSYC 591. Practicum in Counseling and Diagnostics, 2 units

Electives:
PSYC 505. Psychodiagnostics II, 3 units
PSYC 506. Psychodiagnostics II Laboratory, 1 unit
PSYC 579. Family Counseling Theory and Practice, 3 units
PSYC 580. Marriage and Family Lifé, 3 units
PSYC 597. Practicum in Marriage and Family Counseling, 2 units
PSYC 598. Individual Study, l-4 units

\section*{COURSE DESCRIPTIONS}

\section*{Lower Division}

\section*{PSYC 201. 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 200 level courses.

\section*{PSYC 202. 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 201 or equivalent.

PSYC 204. 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 201 or equivalent.

PSYC' 215. Psychology of Marriage and Adjustment (3)
Psychological and ethical aspect of marriage, family life, and personal adjustment. (Formerly 203 and 221) Prerequisite: PSYC 201 or equivalent.

PSYC 295. 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 201 or equivalent.

PSYC 297. Selected Topics offered during Winter Term (4)

\section*{Upper Diviśion}

PSYC 300. 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 330, 349 or 369, required of psychology majors. Prerequisites: PSYC 202 and completion of the General Education requirement in Logic-MathStatistics. MATH 160 is strongly reconmended to meet this requirement.

PSYC 308. 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 309 or concurrent enrollment.

PSYC 309. Comparative Animal Behavior (3)
A comparative study of behavior systems in animals and man. Stress is upon the social and developmental aspects of \({ }^{\text {behavior. }}\) Prerequisite: BIOL 101 or ZOOL 105. Concurrent enrollment in PSYC 308 not required.

PSYC 310. Introduction to Physiological Psychology (4)
Relationship between behavior and physiological processes, particularly neurophysiological processes. (Lecture 3 hours, laboratory 3 hours). Prerequisite: BIOL 101 or Z00L 105.

PSYC 311. 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 101 or ZOOL 105.

PSYC 312. Human Development Laboratory (1)
Systematic observation of human behavior at various stages of development. Prerequisite: Concurrent enrollment in PSYC 313 or consent of instructor.

PSYC 313. Human Development (3)
The psychology of development: infancy, childhood, adolescence, and maturity. Prerequisite: PSYC 202. Concurrent enrollment in PSYC 312 not required.

PSYC 316. 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 testş in common use. Prerequisite: PSYC 202.

PSYC 317. 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 313 or consent of instructor.

PSYC 330. Social Psychology Laboratory (1)
Laboratory and field studies to demonstrate the variety of methods* and content areas in social psychology. Prerequisites: PSYC" 300 and concurrent enrollment in PSYC 331 , or consent of instructor.

PSYC 331. Introduction to Social Psychology (3)
Interpersonal relations including social attitudes, opinions, social structures, and group dynamics. (Formerly 431) Prerequisite: PSYC 202. Concurrent enrollment in PSYC 330 not required.

PSYC 332. 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. Prerequisite: PSYC 202.

PSYC 335. Introduction to the Study of Abnormal Behavior (3)
Abnormal behavior in man, stressing symptoms and dynamics of neuroses and psychoses. (Formerly 435) Prerequisites: PSYC 202 plus 2 additional courses in psychology. PSYC 313 and PSYC 332 are recommended.

PSYC 349. Perception and Cognition Laboratory (1)
Laboratory experience in phenomena related to perception and cognition. Prerequisites: PSYC 300 and concurrent enrollment in PSYC 350, or consent of instructor.

PSYC 350. Introduction to Perception and Cognition (3)
Basic phenomena in the related areas of perception and cognition. Simple and complex responses to stimuli. Concepts such as form perception and organization, color illusions, space, attention and thinking processes, decision-making, thinking and language. Prerequisite: PSYC 202. Concurrent enrollment in PSYC 349 not required.

PSYC 352. 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 101 or ZOOL 105.

PSYC 369. 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 370 or consent of instructor.

PSYC 370. 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 202. Concurrent enrollment in PSYC 369 not required.

PSYC 379. Introduction to Counseling Theory (3)
Introduction to major theories of counseling. Demonstrations and review of current literature. Prerequisite: PSYC 331 or 332.

PSYC 402. History of Psychology (3)
Trends of thought, development of psychology as a discipline with leaders, schools, and issues. Prerequisites: PSYC 202 and two upper division courses in psychology, or consent of instructor.

PSYC 415. 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 313 or consent.of instructor.

PSYC 436. 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 313 or 332 , and 335 .

PSYC 472. Experimental Analysis of Behaviior (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 202.

PSYC 475. Applied Behavior Analysis with Learning Handicapped (3)
Application of learning principles to educational and behavioral problems of individuals. Prerequisite: PSYC 472.

PSYC 477. Introduction to Counseling Techniques (3)
Training in basic counseling skills. (Lecture 2 hours, laboratory 3 hours) (Formerly 577) Prerequisites: PSYC 379, senior standing, and consent of instructor.

PSYC 478. Behavioral Engineering in Educational Settings (3)
Interpretation of learning theory principles and research in the design, implementation and evaluation of educational and prosocial programs. Prerequisites: PSYC 415 and 472.

PSYC 482. 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 331 or consent of instructor.

PSYC 490. 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 300 and senior standing.

PSYC 494. 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 202 and prior consent of instructor.

PSYC 495. 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.

PSYC 497. Selected Topics "offered during Winter Term (4)
PSYC 498. 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.

\section*{Graduate}

PSYC 500. 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 institation-related program. (Lecture 3 hours, laboratory 3 hours) Prerequisites: PSYC 300 or consent of instructor and graduate standing.

PSYC 501. 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 503. Psychodiagnostics I (3)
Strategies of diagnostic evaluation with emphasis upon interviewing techniques, instruments for evaluation of intellectual capacities, achievement capacities, and personality structures. Prerequisites: PSYC 316, graduate standing, and consent of instructor.

PSYC 504. Psychodiagnostics I Laboratory (1)
Supervised work with the application of diagnostic strategies to representative cases. Prerequisite: Concurrent enrollment in PSYC 503.

PSYC 505. Psychodiagnostics II (3)
Advanced concepts of diagnostic appraisal with emphasis upon strategies appropriate to the evaluation of personality disorders. Prerequisites: PSYC 503 and 504, or the satisfactory performance on competency examination corresponding to these courses.

PSYC 506. Psychodiagnostics II Laboratory (1)
Supervised work with the application of diagnostic principles to the evaluation of representative personality disorders. Prerequisite: Concurrent enrollment in PSYC 505.

PSYC 513. Advanced Human Development (3)
Empirical research on theoretical constructs of human development. Prerequisites: PSYC 313 or equivalent and four upper division courses in psychology and graduate standing.

PSYC 564. Advanced Seminar in Behavior Change (3)
Study of current theories and research in behavior therapy. Prerequisites: PSYC 472, 475, and graduate standing. PSYC 5: \(722^{\prime \prime \prime}\). Behavioral Consultation (2)

Supervised work for consultation with classroom teachers. Prerequisițes: Graduate standing and consent of instructor.

PSYC 578.: Advanced Counseling (3)
Counseling practices including commonly used methods of psychotherapy and practice in techniques of counseling. Prerequisites: PSYC 379, 477, and graduate standing.

PSYC 579. Family Counseling Theory and" Practice (3)
"Study of theory and techniques of conjoint family therapy. Prerequisites: PSYC 379, 477, and graduate standing.

PSYC 580. 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 315.

PSYC 591. 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 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 593 or PSYC 597, or both. Prerequisites: PSYC 316, 477, graduate standing, and consent of instructor.

PSYC 593. 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.
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 591.

PSYC 594. 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 590. Practicum in Marriage and Family Counseling (2)
Supervised experience in conjoint family and maxriage 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 avinimum 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. Prerequisite: PSYC 591.

PSYC 597. Selected Topics offered during Winter Term (4)
PSYC 598. Individual Study (1-4)
For qualified graduate students in need of advanced and specialized study. May be repeated 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 599. Master's Thesis (1-6)
Preparation of a thesis in area of specialty for partial fulfillment of requirements. Prerequisite: Admission to classified graduate standing.
H. Dieter Renning, Dr. rer.pol., Coordinator

The Bachelor of Arts, Sôcial 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 may pursue a Social Sciences major without a concentration, by selecting three fields of interest and completing courses as shown under "Requirements" below. Or a student may elect one of the following concentrations within the Social Sciences major:
B. A. Social Sciences: Administration of Justice (see p. 91)
B. A. Social Sciences: International Studies
(see p. 235)
B. A. Social Sciences: Urban and Community Studies (see p. 348)

REQUIREMENTS FOR THE BACHELOR OF ARTS, SOCIAL SCIENCES
Social Sciences interdepartmental majors are to:
1. Complete the requirements for the Bachelor of Arts degree.
2. Complete the general prerequisite: one lower division research methods course in the field of his major interest. These include PSYC 202, SOCL 203, PSCI 200. For history, one year of lower division history, which may be satisfied by HIST 290 and 299; United States History or Western Civilization likewise fulfills the prerequisite. Students in other fields will take PSYC 202 or SOCL 203.
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 206, Introduction to Cultural Anthropology. Note additional prerequisites to certain courses.
Any upper division course may be selected, with the adviser's consent.

ECONOMICS. Prerequisite: ECON 250, 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 201. Introduction to the Physical Environment, 3 units GEOG 202. Introduction to Cultural Geography, 3 units GEOG 240. World Regional Geography I, 3 units GEOG 241. 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, which may be satisfied by HIST 290 and 299; United States History or Western Civilization likewise fulfills the prerequisite.

Courses may 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 (HIST 290 and 299 are not "field" courses):
1. European History
2. United States History
3. Non-Western History

POLITICAL SCIENCE. Prerequisite: PSCI 120, American Government, 3 units
1. American Politics: Select 2 courses at the 300 level.
2. Select additional course(s) from:
a. Political Theory and Methodology
b. Comparative Politics
c. International Relations

PSYCHOLOGY. Prerequisites: PSYC 201, Introduction to Psychology, and PSYC 202, Introduction to Psychological Methods, or SOCL 203, Research Methods
Upper division courses: Three courses from the following (four courses if field of major interest):

PSYC 313. Human Development, 3 units
PSYC 317. .Early Cognitive Development, 3 units
PSYC 331. Introduction to Social Psychology, 3 units
PSYC 332. Introduction to Personality, 3 units
PSYC 335. Introduction to the Study of Abnormal Behavior, 3 units
PSYC 350. Introduction to Perception and Cognition, 3 units
PSYC 5370 . Introduction to Learning and Motivation, 3 units
SOCIOLOGY. Prerequisite: SOCL 101, Introduction to Sociology, 3 units

Any upper division course may be *selected with the adviser's consent.

SPEECH COMMUNICATION. Prerequisite: SPCH 201, 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.
1. SPCH 301. Language and Speech Development, 3 units

SPCH 305. General Semantics, 3 units
SPCH 401. Structural and Psycholinguistics, 5 units
2. SPCH 410. Group Communication, 3 units

SPCH 412. Theory of Persuasion, 3 units
3. SPCH 400. Communication Theory, 4 units SPCH 414. 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.

REQUIREMENTS FOR SOCIAL SCIENCES MAJOR SEEKING A TEACHING CREDENTIAL
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:
1. Complete the Liberal Studies requirements (see Liberal Studies section in this catalog) with a concentration in one of the following Social Sciences fields: Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology.
2. Complete three upper division courses in each of two other Social Sciences fields and the Social Sciences Interdisciplinary Seminar.
3. Complete all other requirements for the Bachelor of Arts degree.

Courses to be taken under (1) and (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:
1. Complete the General Education and all other college-wide requirements for the degree.
2. Complete the general prerequisite: One of the following research methods courses: HIST 290 and 299, PSCI 200, PSYC 202, or SOCL 203.
3. Complete the major of not less than 32 upper division units, as approved by the adviser, and distributed as follows:


COURSE DESCRIPTION
SSCI 496. Social Sciences Interdisciplinary Seminar (3)
Discussions and papers based on concepts, theories, information and techniques from several social science disciplines. Prerequisite: Completion of seven upper division courses in the major.

\section*{SOCIOLOGY}

\author{
Jack L. Dyer, Ph.D., Professor, Chairman \\ Harriet C. Stull, Ph.D., Professor Antonio Donini, Ph.D., Associate Professor Joseph A. Novack, Ph.D., Associate Professor Donald W. Bowers, Ph.D., Assistant Professor George Muedeking, Ph.D., Assistant Professor William B. Sanders, Ph.D., Assistant Professor Frank Tripi, Ph.D., 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, criminal justice, teaching, industrial and organizational activities, research, and continued academic work for advanced degrees.

The college also offers the degree of Bachelor of Arts, Social Sciences. Those interested in this degree select an inter-departmental 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.
2. Complete prerequisites to the major.
3. Complete the major of not less than 30 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.
4. Completion of a minor is not required.

DEGREE MAJOR IN SOCIOLOGY
Lower Division Requirements:
SOCL 101. Introduction to Sociology, 3 units
SOCL 203. Research Methods, 4 units

\title{
A minimum of 30 upper division hours", including \\ Theory and Methodology (303, 341, 441, 496). . . . . 14 \\ Electives from sociology . . . . . . . . . . . . . . 16
}

DEGREE MINOR IN SOCIOLOGY
Eighteen semester hours approved by the adviser, including SOCL 101, 203, 341, and 4 hours of upper division electives.

\section*{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.

\section*{LIBERAL STUDIES CONCENTRATION IN SOCIOLOGY}

Liberal Studies majors with a concentration in Sociology, must complete 20 units of sociology courses including SOCL 316, Sociology of Youth; and SOCL 400, Sociology of Education. Fifteen of these twenty units must be upper division units.

\section*{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 twenty hours of graduate work in the areas of crime and corrections.

\section*{COURSE DESCRIPTIONS}

\section*{Lower Division}

SOCL 101. Introduction to Sociology (3)
Basic concepts and perspectives in sociological analysis. Prerequisite to other sociology courses.

SOCL 203. Research Methods (4)
Introduction to research design ānd methodology in 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 101 or equivalent.

Study of selected social problems.

SOCL 295. 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 297. Selected Topics offered during Winter Term (4)
Upper Division
SOCL 301. Race and Ethnic Relations (3)
Sociological analysis of minority group relations; attention to specific racial, ethnic and religious minorities. Prerequisite: SOCL 101 or consent of instructor.

SOCL 302. 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 101.

SOCL 303. Research Techniques and Analytic Procedures (4)
Social measurement, data analysis and interpretation, formulation of research designs and application of research techniques. Includes understanding and performing basic research. Prerequisité: SOCL 203.

SOCL 315. The Family (3)
Sociai structure and changing functions of the modern family. Relationship of family to other social institutions. Family roles and interaction. Prerequisite: SOCL 101 or consent of instructor.

SOCL 316. Sociology of Youth (2)
Sociological analysis of the development of self and the socialization of the child and youth in sex and age roles. Prerequisite: SOCL 101.

SOCL 320. 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 101 or consent of instructor.

SOCL 321. 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 101 or consent of instructor.

SOCL 325. Criminal Justice I (3)
A survey of basic institutions and processes of criminal justice in the United States. Prerequisite: Junior standing.

SOCL 331. Social Stratification (3)
Origins, characteristics, and functions of social castes and classes; emphasis on recent research and theoretical developments. Prerequisite: SOCL 101 or consent of instructor.

SOCL 341. Modern Sociological Theory I (3)
Development of sociological theory: analysis of basic concepts and theories in sociology contributed by Comte, Pareto, Weber, Durkheim, Mannheim and other classical sociologists. Prerequisite: Consent of instructor.

SOCL 342. 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 101 or consent of instructor.

SOCL 361. Small Groups Seminar (3)
Structure and processes of small human groups, theory, research methods and empirical findings. Prerequisite: SOCL 101 or consent of instructor.

SOCL 372. Social Welfare Services (4)
Historical development of welfare services; analysis of the structure policies, and issues of public and private welfare services. Field experience required. Prerequisite: SOCL 101.

SOCL 400.' Sociology of Education (3)
The changing character of education in complex societies, its effect on individual and community behavior and development. Prerequisite: SOCL 101 or consent of instructor.

\section*{SOCL 403. 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 303 or equivalent.

SOCL 412. 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 442 and 423) Prerequisite: SOCL 101 or consent of instructor.

SOCL 413. 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 101 or consent of instructor.

SOCL 414. Sociology of Law (3)
Sociological analysis of legal principles and rules, law and culture, social organization, social change, administration of justice. Prerequisite: SOCL 101 or consent of instructor.

SOCL 424. 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 101 or consent of instructor.

SOCL 425. Criminal Justice II (3)
Analysis of public policy issues in administration of criminal justice; ideology of crime control and criminal justice reform. Prerequisite: SOCL 325.

SOCL 432. Sociology of Religion (3)
Sociological analysis of religious belief, behavior, and organization; classical and current theory and research. Prerequisite: Consent of instructor.

SOCL 440. Political Sociology (3)
Sociological bases of political attitudes and behavior. Theory and research dealing with political socialization, voting behavior, legitimacy and authority. Prerequisite: SOCL 101 or consent of instructor.

SOCL 441. Modern Sociological Theory II (4)
Major contributions to systematic sociological theory. Critical analysis of selected works from contemporary sociologists. Prerequisite: SOCL 341.

SOCL 451. Personality Culture and Social Structure (3)
Relations between personality, social structure and culture. Primary emphasis on rules, socialization, aggression, affiliation, leadership, and norms. Prerequisite: SOCL 101 or consent of instructor.

SOCL 460. 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 101 or consent of instructor.

SOCL 480. Formal Organizations (3)
Analysis of modern bureaucratic organizations like hospitals, prisons, welfare, schools and so forth. Examination of organizational effects on members, clients, other organizations and so forth will be stressed. Prerequisite: Consent of instructor.

SOCL 484. 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 101, 203, or consent of instructor.

SOCL 490. 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. Recomended for future graduate students or teachers. Prerequisite: Senior standing and consent of instructor.
'SOCL 494. Field Experience--Immersion Semester (6)
Supervised experience relevant to specific aspects of sociology. Intensive field plarement in an appropriate agency or organization. Individual meetings written reports: Prerequisite: Gonsent of instructor,

SOCL 495. Selected Topics in Sociology (Topics to 'be specified in Class Schedule) (1 \(1+5\) )

Topics specified in class schedule. Topics vary each țerm, thus different topics may be taken for credit. Prerequisite: Consent of instructor.

SOCL 496. Senior Seminaf (3)
Review and discussion of the contemporary issues facing sociology. Each student prepares an individual report. Prerequisite: Consent of instructor.

SOCL 497. Selected Topics offered during Winter Term (4)
WOCL 498. Indiyidual Study (1-4)
For students capable of independent work at an advanced level. May be repeated up to 6 units. .Pferequisite: Consent of instructor.

SOCL 500. Seminar in Criminology. (3)
Advanced study of crime causation and criminal classification; specialized group and individual treatment approaches. Prere」 quisite: Graduate standing.


\section*{SPEECH COMMUNICATION}

\author{
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 \\ Jerry L. Weedon, Ph.D., Associate Professor \\ Susan E. Kellogg, M.S., Assistant Professor \\ Sam Wellbaum, Ph.D., Assistant Professor
}

The Department of Speech Communication offers the degrees Bachelor of Arts and Master of Arts, Speech. In addition, it provides a curriculum designed to develop a substantial background in theory and function of oral communication and the art of oral expression to serve the following academic and professional needs:
1. To provide the general student in liberal arts with an opportunity to increase his understanding of the theories and processes of oral communication.
2. To provide opportunities through speech for creative and cultural expression.
3. To provide specialized knowledge in communication arts and sciences for students who plan to enter various professional programs such as public school teaching, clinical speech pathology and audiology, mass communications, ministry, law, and business.

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:
1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 28 upper division units; of these, no more than 9 units of CR graded course work may apply toward the major.
4. Completion of a minor is not required.

\section*{Prerequisite to the Major}

> SPCH 201. Oral Communication Processes, 4 units One lower division course in speech as approved by major adviser, 3 units
The Major Units
SPCH 300. Phonetics ..... 3
SPCH 301. Language and Speech Development ..... 3
SPCH 305. General Semantics ..... 3
SPCH 312. Rhetorical Communication ..... 3
SPCH 400. Communication Theory ..... 4
Upper division courses in speech as approved by major adviser ..... 12
Total ..... 28
REQUIREMENTS FOR THE BACHELOR OF ARTS IN SPEECH WITH A CONCENTRATION IN ORGANIZATIONAL COMMUNICATION
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 divisionunits; of these, no more than 10 units of CR gradedcourse 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 250. Principles of Economics I, 4 units
ENGL 205. Technical and Report Writing, 3 units
SPCH 201. Oral Communication Processes, 4 units
Additional recommended courses include:
BUS 206. Business Law, 3 units
ECON 251. Principles of Economics II, 4 units
PSYC 202. Introduction to Psychological Methods, 3 units SPCH 210. Discussion and Debate, 3 units
The concentration: ..... Units
BUS 301. Organization and Environment ..... 4
PSCI 430. Organization Theory ..... 4
SPCH 305. General Sembntics ..... 3
SPCH 312. Rhetorical Communication ..... 3
SPCH 400. Communication Theory ..... 4

Additional minimum of 12 units selected on advisement
 from the following ..... 12

BUS 331. The Administrative Process, 3 units PSCI 330. Introduction to Public Administration, 3 units
PSYC 482. Group Dynamics Seminar, 3 units
SOCL 361. Small Groups Seminar, 3 units
SOCL 460. Industrial Sociology, 3 units
SOCL 480. Formal Organizations, 3 units
SPCH 391. Speech Activities, 2 units
SPCH .410. Group Communication, 3 units
SPCH 412. Theory of Persuasion, 3 units
SPCH 414. Rhetorical Theory, 3 units
SPCH 498. Individual Study, 1-4 units
Total30

DEGREE, MINOR IN SPEECCH
Eighteen units, to include at least 12 units in upper division

\section*{Lower Division}

SPCH 200. Speech Communication, 3 units or
SPCH 201. Oral Communication Processes, 4 units
One of the following as approved by minor adviser:
SPCH 210. Discussion and Debate, 3 units
SPCH'240. Oral Interpretation, 3 units
Upper* \({ }^{\text {Division }}\)
SPCH 300. Phonetics, 3 units
SPCH 305. General Semantics, 3 units
SPCH 312. Rhetorical Communication, 3 units
Three units as approved by minor adviser.

LIBERAL STUDIES CONCENTRATION IN SPEECH
Twenty umits, to include at least 15 upper division units
Core Requirements in Liberal Studies:
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*SPCH 200. Speech* Communication, 3 units
or *SPCH 201. Oral Communication Processes,
units
SPCH" 301. Language and Speech Development, 3 units6-7

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\footnotetext{
*Cannot apply toward the concentration if used to satisfy Liberal Studies Area D requirements.
}
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    Additional courses selected from the followingon advisement13-14SPCH 210. Discussion and Debate, 3 units*SPCH 240. Oral Interpretation, 3 units
    *SPCH 291 or *391. Speech Activities, 2 units
*SPCH 300. Phonetics, 3 units
*SPCH 305. General Semantics, 3 units
SPCH 312. Rhetorical Communication, 3 units
*SPCH 340. Interpretation of Children's Literature, 3 units
*SPCH 341. Interpretation of Literature, 3 units
SPCH 400. . Communication Theory, 4 units
*SPCH 401. Structural and Psycholinguistics, 5 units
SPCH 410. Group Communication, 3 units
SPCH 412. Theory of Persuasion, 3 units
SPCH 414. Rhetorical Theory, 3 units
SPCH 440. Special Forms of Oral Interpretation, 4 units _
Total . . . . . . . . . . . . . . . . . . . . . . . . }2

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\section*{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.

MASTER OF ARTS IN SPEECH
The Department of Speech Communication offers the Master of Arts degree in Speech with a concentration in Commmication Pathology.

Prerequisites for admission to the graduate program:
1. Completion of a bachelor's degree program from an accredited college or university.
2. Superior performance in the undergraduate major ( 3.0 GPA ). Exceptions to be granted only upon petition to the department.

\footnotetext{
*Cannot apply toward the concentration if used to satisfy Liberal Studies Area D requirements.
}
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 300, 301, 305, 361, 364, 381, 382, 400, 401, 460, 461, 462, 481; PSYC 335; or their equivalent.

Continuation in the Program:
The student is formally admitted to the program after completion of seme 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:
1. 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.
2. Students are expected to maintain continuous registration. Exception will be granted only on petition to the department.

\section*{REQUIREMENTS FOR THE DEGREE}

The Degree of Master of Arts in Speech with concentration in Communication Pathology is awarded after completion of requirements listed under one of two plans.

\section*{PLAN I}
1. Thirty semester units in graduate courses selected on adviisement and to include research methodology (SPCH 590) and thesis preparation (SPCH 599). Graduate level courses in speech within the 500 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.
3. Oral examination on thesis conducted by the thesis committee.

PLAN II
1. Thirty semester units in graduate courses selected on advisement, to include all of the following:
a. Research Methods in Speech (SPCH 590), 5 units
b. Three to 6 additional units of Advanced Clinical Practice (SPCH 570, 571).
c. Special Projects in Speech (SPCH 595). The course requirements include design, implementation, and completion of a special research or instructional project.
under the direction of a faculty member. All projects must be approved by a committee composed of faculty members in the area of speech pathology and/or audiology. Each project will be reported in a paper of publishable quality and the work will be evaluated by the committee.
d. Nineteen to 22 additional semester units of graduate course work.
2. Satisfactory completion of a comprehensive written examination covering graduate courses content and clinical methodologies.
3. A comprehensive oral examination conducted by a committee of departmental graduate faculty.

\section*{SPEECH COMMUNICATION SUB-AREAS}

\section*{basic systems and processes: language and communication}

SPCH 201. Oral Communication Processes, 4 units
SPCH 300. Phonetics, 3 units
SPCH 301. Language and Speech Development, 3 units
SPCH 305. General Semantics, 3 units
SPCH 400. Communication Theory, 4 units
SPCH 401. Structural and Psycholinguistics, 5 units
SPCH 495. Selected Topics in Speech, 1-5 units
SPCH 496. Introduction to Research Methods in Communication, 3 units
SPCH 498. Individual Study, 1-4 units

\section*{INTERPERSONAL COMMUNICATION}

SPCH 200. Speech Communication, 3 units
SPCH 210. Discussion and Debate, 3 units
SPCH 291. Speech Activities, 2 units
SPCH 295. Selected Topics in Speech, 1-5 units
SPCH 312. Rhetorical Communication, 3 units
SPCH 391. Speech Activities, 2 units
SPCH 393. Intercollegiate Forensics, 1 unit
SPCH 410. Group Communication, 3 units
SPCH 412. Theory of Persuasion, 3 units
SPCH 414. Rhetorical Theory, 3 units

\section*{ORAL INTERPRETATION}

SPCH 240. Oral Interpretation, 3 units
SPCH 340. Oral Interpretation of Children's Literature, 3 units
SPCH 341. Oral Interpretation of Literature, 3 units
SPCH 440. Special Forms of Oral Interpretation, 4 units

SPCH 361. Introduction to Communication Disorders, 3 units SPCH 364. Anatomy of Speech and Hearing Mechanisms, 3 units SPCH 570 . Proseminar in Clinical Observation, 1 unit
SPCH 381. Theory and Practice of Hearing Measurement I, 4 units
SPCH 382. Theory and Practice of Hearing Measurement II, 4 units
SPCH 460. Proseminar in Diagnostic Methods in Communication Disorders, 3 units
-SPCH 461. Proseminar in Communication Disorders I (Language and Symbolization Diskabilities), 3 units
SPCH 462. Proseminar in Communication Disorders II (Articulation), 3 units
SPCH 465. Proseminar in Behavioral Modification in Speech and Language Therapeutics, \(3^{\prime \prime}\) units
SPCH 470. Clinical Practice: Speech and Language Disorders, 1-2 units
SPCH:471. Clinical Practice: Hearing Disorders, 1-2 units SPCH 472. Developmental Assessment, 3 units
SPCH 481. Proseminar in Speech Reading and Aural Rehabilitation, 3 units

GRADUATE
SPCH 561. Seminar in Dysfluency, 5 units
SPCH 563. Seminar in Articulation Disorders, 5 units
SPCH 565. Seminar in Voice Disorders, 5 units
SPCH 566. Seminar in Disorders of Language Learning, 5 units
SPCH 571. Advanced Clinical Practice: Hearing Disorders, 1-2 units
SPCH 580. Seminar: Audiological Research, 5 units
SPCH 581. Seminar in Education of the Hearing Impaired, 5 units
SPCH 590. Research Methods in Speech, 4 units
SPCH 595. Selected Topics in Speech, 1-5 units
SPCH 598. Individual Study, 1-4 units
SPCH 599. Thesis, 3-5 units
SPCH 641. Clinical Practice in Communication Disorders in Public Schools I, 2 units
SPCH 642. Clinical Practice in Communication Disorders in Public Schools II, 4 units

COURSE DESCRIPTIONS

\section*{Lower Division}

SPCH 200. Speech Communication (3)
Oral communication theory and practice in terms of the process, speaker, message, and audience. Emphasis on ethics, reasoning, evidence, listering, and criticism. Classroom activities include preparation, presentation, and criticism of speeches.

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 210. 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.

SPCH 240. Oral Interpretation (3)
Fundamentals of theory; techniques and practices in communicating from the printed page.

SPCH 291. Speech Activities (2)
Workshop serving as a base for student involvement in a variety of speech communication activities. Options include projects in intercollegiate competition and on-campus, community, and high school settings. May be repeated for a total of 8 units. (Formerly 292) Prerequisite: One lower division speech course or consent of instructor.

SPCH 295. 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 297. Selected Topics during Winter Term (4)
Upper Division \({ }^{\prime}\)
SPCH 300. Phonetics (3)
Analysis of general Anerican 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 301. 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)

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 312. 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 201.

SPCH 340. 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 240 or consent of instructor.
*SPCH 341. Oral Interpretation of Literature (3)
Application of principles of oral interpretation to literary modes and genres with a special emphasis on verse. Prerequisite: SPCH 240 "or consent of instructor.

SPCH 361. 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 SPCA 370 . Prerequisite: Concurrent enrollment in SPCH 300 or consent of instructor.

SPCH 364. 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 370. 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 381. 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 364 or equivalent. Students are required to register concurrently in SPCH 471 for 1 unit.

SPCH 382. Theory and Practice of Hearing Measurement II (4)
Continuation of SPCH 381. The history and use of speech audiometry and other special tests in audiological assessment. Prerequisite: SPCH 364, 381, or equivalent. Students are required to register concurrently in SPCH 471 for 1 unit.

SPCH 391. Speech Activities (2)
Workshop serving as a base for student involvement in a variety of speech communication activities. Options include projects in intercollegiate competition and on-campus, community, and high school settings. May be repeated for a total of 8 units. (Formerly 392) Prerequisite: One lower division speech course or consent of instructor.

SPCH 393. Intercollegiate Forensics (1)
Participation in intercollegiate speech competition. Competition offered in debate, reader's theatre, oral interpretation, and individual speakingrevents. A total of 10 units may be earned in any combination of SPCH 291, 391 and 393. Prerequisites: SPCH 291, 391, or consent of instructor. Concurrent enrollment in SPCH 291 or 391 recommended but not required.

SPCH 400. 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 401. 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 410. "Group Communication (3)
Studìes in small group théory 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 412. 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 414. 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.

SPÇH 440. Special Forms of Oral Interpretation (4)
Special forms of oral interpretation including theatrical presentations of prose and verse literature. Prerequisite: SPCH•240 or consent of instructor.

SPCH* 460 . 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. Instrumentations examination techniques, interview methods, report writing, and referral procedures. Concurrent enrollment in SPCH 470 for 1 unit. Prerequisites: SPCH 300, 301, 361 and 364.

SPCH 461. 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 470 or 570 for 1 unit is required.
. SPCH 462. Proseminar in Comnunication Disorders II (Articulation) (3).

Continuation of SPCH 461. Disorders of articulation, voice and fluency, cerebral palsy, and oro-facial abnormalities including cleft palate. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 470 or 570 for 1 unit is required.

SPCH 465. Proseminar in Behavioral Modification in Speech and Language Therapeutics (3)

Study and experience in speech and language therapeutic programming utilizing behavioral modification techniques based on operant conditioning and systematic desensitization procedures. Review of current literature pertaining to operant articulatory and language therapeutic principles. Prerequisites: SPCH 300, 301, 364. Concurrent enrollment in SPCH 470 or 570 is required.

SPCH 470. 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 300, 301, 361, 364.

SPCH 471. 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 381.

SPCH 472. 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 481. 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*471 for 1 unit. Prerequisites: SPCH 364 and 381 .

SPCH 495. Selected Topics in Speech (Topics to be specified in the Class Scheḍule) (1-5)

Development of a selected branch of oral communication. Topies may vary each term, thus different topics may•be taken for credit. Prerequisites: Upper division standing and consent of instructor.

SPCH 496. 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 497. Selected Topics offered during Winter Term (4)
SPCH 498. 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 561. Seminar in Dysfluency (5)
Stuttering, cluttering, other disorders of fluency. Theory, diagnosis, and treatment. Prerequisite: Consent of instructor. Concurrent enrollment in SPCH 570 for 1 unit is required.

SPCH 563. 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 570 for 1 unit is required.

SPCH 565. 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 570 for 1 unit is required.

SPCH 566. 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 570 for 1 unit is required.

SPCH 570. 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 571. 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 580. 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 571 for 1 unit is required.
-
SPCH 581. 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 571 for 1 unit is required.

SPCH 590. Research Methods in Speech (4)
The purpose and methods of research in the field of speech; trends and development's 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 595. 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 597. Selected Topics offered during Winter Term (4)

SPCH 598. Individual Study (1-4)
For quálified graduate students in need of advanced or specialized study. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

SPCH 599. Thesis (3-5)
Thesis research. Prerequisite: Special permission.
SPCH 641. Clinical Practice in Communication Disorders in Public Schools I (2)

Supervised screening and identification of communication disorders in the public school setting, preparation of case studies so identified, keeping of records and observation of public school therapy in process. Prerequisites: Completion of or concurrent enrollment in SPCH 590 and completion of 120 clock hours in SPCH 470, 471, 570, 571.

SPCH 642. Clinical Practice in Communication Disorders in Public Schools II (4)

Continuation of SPCH 641. Supervised therapy of communication disorders in the public school setting. Twenty contact hours required for each unit of credit earned. Prerequisites: Acceptance in credential program in speech, completion of or concurrent enrollment in SPCH 590 and 90 clock hours in SPCH 470, 471, 570, 571.

\title{
URBAN AND COMMUNITY STUDIES A Concentration Within the Social Sciences Major
}

\author{
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 are 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.

\section*{REQUIREMENTS FOR THE BACHELOR OF ARTS, SOCIAL SCIENCE, WITH A CONCENTRATION IN URBAN AND COMMUNITY STUDIES}
1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
3. 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 major.
4. Completion of a minor is not required.

\section*{Prerequisites:}
1. SOCL 101. Introduction to Sociology, 3 units
2. PSCI 120. American Government, 3 units
3. ECON 250. Principles of Economics I, 4 units
4. Complete one of the following research methods courses:

MATH 200. Introduction to Computers, 3 units
SOCL 203. Research Methods, 4 units
PSCI 310. Scope and Methods of Political Science, 4 units

Recommended courses:
MATH 160. Statistics, 4 units
SOCL 303. Research Techniques and Analytic Procedures, 4 units
GEOG 370. Map and Aerial Photo Interpretation, 4 units
1. URBAN ENVIRONMENT

Three courses dealing with the cultural, economic, spatial, and physical aspects of the urban environment:

ECON 460. Urban Economics, 3 units
GEOG 335. Urban Geography, 4 units
HIST 364. Contemporary America, 3 units
2. URBAN BEHAVIOR

Two courses concerned with urban behavior:
SOCLL 321. Urban Sociology, 3 units
SOCL 484. Community Organization and Process, 4 units
3. URBAN ADMINISTRATION AND POLITICS

Two courses in the areas of urban administration and politics:

PSCI 330. Introduction to Public Administration, 3 units PSGI 331. Urban Politics, 4 units
4. INTERDISCIPLINARY SEMINAR

As arranged in consultation with an adviser, complete 3 units of:

SSCI 496. Social Sciences Interdisciplinary Seminar
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 454. Public Finance and Fiscal Policy, 3 units
ECON 455. Taxation and the American Economy, 3 units
GEOG 351. Geography of North America, 4 units
GEOG 370. Map and Aerial Photo Interpretation, 4 units
GEOG 430. Geography of Resource Planning, 3 units
HIST 479. American Intellectual and Social History II, 3 units
PSCI 323. Political Parties and Interest Groups, 4 units
PSCI 326. Urban Justice; 3 units
PSCI 333. California Politics, 3 units
PSCI 430. Organization Theory, 4 units
PSCI 432. Minority Politics, 3 units
*PSCI 434. Public Administration Internship, 3 units

\footnotetext{
*This course is available only to students who have been admitted to the Internship Program of the Political Science Department.
}

SOCL 303. Research Techniques and Analytic Procedures, 4 units
SOCL 315. The Family, 3 units
SOCL 32Q. Social Change, 3 units
SOCL 331. Social Stratification, 3 units
SOCL 342. Population and Demography, 4 units
SOCL 372. Social Welfare Services, 4 units

Gatlin, Car1 (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) . . Associate Professor of Anthropology and Geography B.A., 1958, Brigham Young University; M.A., 1960, University of Wisconsin; Ph.D., 1968, Indiana University

Ahanotu, "Adstin 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) . . . . . . . Assistant Professor of Chemistry B.A., 1964, Johns Hopkins University; Ph.D., 1969, University of California, Los Angeles

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\section*{CATALOG}```


[^0]:    Office of General Counsel
    5670 Wilshire Boulevard Suite 1260 Los Angeles, California 90036

[^1]:    * 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.

[^2]:    *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.

[^3]:    *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.

[^4]:    * For budgetary purposes, a 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 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 $\$ 224$ depending on whether they are part-time, fulltime, resident or nonresident students.

[^5]:    *ANTH 206, 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.

