## STANISLAUS

 STATE COLLEGE

1971-72
Catalog

Turlock, California
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## STANISLAUS STATE COLLEGE

the california state colleges

# CATALOG 

1971-72

800 Monte Vista Avenue
Turlock, California
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Stanislaus State College has an oftractive and rapidly expanding library.


The Classroom Building as seen from the second floor of the Library Building.


New students get an early start on making acquaintances as they wait for transportation to the Freshman camp.

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## SUMMER SESSIONS 1971

| April 1-May 14, Thursday through Friday. $\qquad$ | Filing period for registration applications for pre and six-week summer sessions |
| :---: | :---: |
| April 1-June 30, Thursday through Wednesday $\qquad$ | Filing period for registration applications for postsummer session |
| April 5-June 7, Monday through Monday $\qquad$ | Regular registration period for pre and six-week summer sessions |
| April 5-July 19, Monday through Monday | Regular registration period for postsummer session |
| May 14, Friday | Last day to file applications for financial aid in summer sessions |
| ay 15, Saturday | Late filing period begins for pre and six-week summer sessions registration applications |
| June 1-30, Tuesday through Wednesday $\qquad$ | ing period for winter 1972 admission applications |
| June 8-14, Tuesday through Monday $\qquad$ | Late registration period for presummer session |
| June 12-18, Saturday through Friday $\qquad$ | resession |
| June 14-28, Monday through Monday | Late registration period for six-week summer session |
| June 21-July 30, Monday through Friday. $\qquad$ | Six-week session |
| July 1, Thursday | Late filing period begins for postsummer session registration applications |
| July 1, Thursday | Late filing period begins for winter 1972 admissions applications |
| July 5, Monday | Legal holiday (Independence Day) |
| July 26-August 3, Monday through Tuesday $\qquad$ | Late registration period for postsummer session |
| August 2-20, Monday through Friday $\qquad$ | Postsession |
| August 2-31, Monday through |  |
| Tuesday | Filing period for spring 1972 admission |

## FALL QUARTER 1971

| November 2-30, 1970, Monday |
| :---: |
| through Monday-_- | | Initial period for accepting admission applications |
| :---: |
| for fall quarter 1971 |

December 1, 1970, Tuesday--_-_- Late filing period begins for fall 1971 admission
applications

## Academic Calondar



Acadomic Calendar

| December 6-9, Monday through Thutsday. | examinations for fall quarter 1971 |
| :---: | :---: |
| Decermber 9, Thursday--. | Fall quarter 1971 ends |
| December 25-27, Saturday through Monday. $\qquad$ | Christmas holiday |
|  | ITER QUARTER 1972 |
| June 1-30, 1971, Tuesday through Wednesday... | Initial period for accepting admission applications for winter quarter 1972 |
| July 1, 1971, Thursday | Late filing period begins for winter 1972 admission applications |
| October 18, 1971, Monday | Beginning of academic advising period for winter quarter 1972 |
| November 15, 1971, Monday | Last day to file applications for financial aid in winter quarter 1972 |
| November 19, 1971, Friday | ..End of academic advising period for winter quarter 1972 |
| December 1, 1971, Wednesda | Registration for winter quarter 1972 (refer to Class Schedule) |
| December 1, 1971, Wednesda | Last day to register for winter quarter 1972 withour late registration fee |
| December 30, 1971, | First day of late registration |
| Saturda | Legal holiday (New Year's Day) |
| January 3, Monday | Instruction begins |
| January 7, Friday.- | First day to add or drop a course |
| January 14, Friday | Last day of late registration |
| January 14, Friday | Last day to add a course |
| January 14, Friday | Last day to apply for winter 1972 graduation |
| January 17, Monday | Last day to file application for partial refund of fees after withdrawing from the College |
| January 21, Friday | Last day to drop a course without a grade |
| January 21, Friday | Applications due for fall 1972 graduation |
| January 24, Monday | $\underset{1972}{ } \quad$ Beginning of academic advising for spring quarter |
| February 12, Saturday | Legal holiday. (Lincoln's Birthday) |
| February 18, Friday | .Last day to submit approved master's degree thesis for winter 1972 graduation |
| ebruary 21, Monday | Legal holiday (Washington's Birthday, February 22) |
| ebruary 25, Friday | End of academic advising for spring quarter 1972 |
| March 2, Thursday | Registration for spring quarter 1972 (refer to Class Schedule). No classes to be held |
| rech 2, Thursday | Last day to register for spring quarter 1972 without late registration fee |
| March 3, Friday | Last day to drop a course |
| arch | Last day of classes for winter quarter 1972 |

## Academic Calendar

| March 13, Monday | Reading Day* |
| :---: | :---: |
| March 14-17, Tuesday through Friday. | Final examinations for winter quarter 1972 |
| arch 17, Friday. | Winter quarter 1972 ends |

## SPRING QUARTER 1972

August 2-30, 1971, Monday
through Tuesday --_Initial period for accepting admission applications for spring quarter 1972


June 6-9, Tuesday through
Friday.
Final examinations for spring quarter 1972
June 10, Saturday
Commencement
June 10, Saturday
Spring quarter 1972 ends

[^0]
## SUMMER SESSIONS 1972 (TENTATIVE)

| April 1-May 12, Saturday <br> through Friday $\qquad$ Filing period for registration applications for pre and six-week summer sessions |  |
| :---: | :---: |
| 1-June 28, Saturday rough Wednesday. | ummer session |
| rough Monday | ummer sessions |
| April 3-July 17, Mondaythrough Monday. |  |
| May 13, Saturday $\qquad$ Late filing period begins for pre and six-week summer sessions registration applications |  |
| May 15, Monday $\qquad$ Last day to file applications for financial aid in summer sessions |  |
| June 6-12, Tuesday through <br> Monday $\qquad$ Late registration period for presummer session |  |
| June 10-16, Saturday through Friday $\qquad$ Presession |  |
| June 12-26, Monday through <br> Monday $\qquad$ Late registration period for six-week summer session |  |
| June 19-July 28, Monday through Friday $\qquad$ Six-week session |  |
| June 29, | Late filing period begins for postsummer sessi registration applications |
| July 3, Monday___Legal holiday (Independence Day) |  |
| July 24-August 1, Monday through Tuesday $\qquad$ | te registration period for postsummer session |
| 31-August 18, Monday ough Friday. $\qquad$ | stsessi |

## TRUSTEES OF THE CALIFORNIA STATE COLLEGES: 1970-71

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Appointments are for a term of eight years expiring March 1 of the years in parentheses. Names are listed in order of accession to the Board.

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California State College, Long Beach 6101 East Seventh Street Long Beach, California 90804 Stephen Horn

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California State College, San Bernardino 5500 State College Parkway San Bernardino, California 92407 John M. Pfau, President (714) 887-6311

California State Polytechnic College Kellogg-Voorhis 3801 West Temple Avenue Pomona, California 91766 Robert C. Kramer, President (213) 964-6424

California State Polytechnic College
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San Francisco State College 1600 Holloway Avenue San Francisco, California 94132
S. I. Hayakawa, President
(415) 469-9123

San Jose State College
125 South Seventh Street
San Jose, California 95114
John H. Bunzel, President
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Thomas A. McGrath, President
(707) 795-2011

Stanislaus State College
800 Monte Vista Avenue
Turlock, California 95380
Carl Gatlin, President
(209) 634-9101

## THE CALIFORNIA STATE COLLEGES

Academic year 1971-72 marks for the California State Colleges the beginning of their second decade of service to the people of California as a unified system of public higher education-the largest such system in the Western Hemisphere and one of the largest in the world. Brought together as a system under an independent Board of Trustees as a result of the Donahoe Higher Education Act in the early 1960's, the California State Colleges now number nineteen, covering the state from Humboldt State College in the north to San Diego State College in the south. Current enrollment exceeds 244,000 full- and part-time students, with a faculty of approximately 14,000 .
Responsibility for the California State Colleges is vested in the Board of Trustees, whose members are appointed by the Governor, and the Chancellor, who is the executive officer of the system. The Trustees and the Chancellor develop systemwide policy, with implementation taking place at the campus level. The Academic Senate of the California State Colleges, made up of elected representatives of the faculty from each college, recommends academic policy to the Board of Trustees through the Chancellor.

Each college in the system has its own unique geographic and curricular character, but all emphasize the liberal arts and sciences. Programs leading to the bachelor's and master's degrees are master-planned to anticipate and accommodate student interest and the educational and professional needs of the State of California. A limited number of joint doctoral programs are also offered. Although there is increasing recognition of the importance of research to the maintenance of quality teaching, the primary responsibility of the faculty continues to be the instructional process.

While San Jose Stace College, the oldest, was founded over a century ago, prior to World War II only seven State Colleges were in existence, with a total enrollment of 13,000 . Since 1947, twelve new colleges have been established, and sites have been selected for additional campuses in Ventura, San Mateo, and Contra Costa counties. California State College, Bakersfield, the newest, was opened to students only last year. Enrollment in the system is expected to pass 300,000 by 1980.

## STANISLAUS STATE COLLEGE

## COLLEGE ADMINISTRATION

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Chairman, Department of Drama
Bruce D. Hood, M.A.
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## LIBRARY ADMINISTRATION

College Librarian R. Dean Galloway, M.S.

## GENERAL INFORMATION

## THE COLLEGE

Stanislaus State College is beginning its second decade as an institution of higher education in California. The College was established by the State Legislature in 1957 and opened at the Stanislaus County Fairgrounds in Turlock in September, 1960.
During its five years at the fairgrounds, the College admitted only junior and senior students because of limited facilities and curriculum. Lower division students were not admitted until the College moved to its permanent campus northwest of Turlock in 1965 and since that time Stanislaus State College has experienced a very rapid growth. More than 3,000 students are expected to enroll in the College in the fall quarter, 1971, about 400 of them graduate students.

Although a majority of the students come from a six-county area surrounding the college there are students from throughout the state and several from other western states and foreign countries.

Stanislaus State College is located in the City of Turlock, a growing rural community of about 14,000 persons. It is located in California's vast central valley which is considered one of the prime agricultural areas in the world.

As it would be expected, the community's economy is based largely upon agricultural products and processing plants. However, there is a trend toward light and medium industry which will give the area a much better year-around economical base.

Turlock is about two hours by car to 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 closer to the community. The community has six elementary schools, a high school, two hospitals, a daily newspaper, a radio station, two theaters, and several other activities of educational, cultural and recreational interest.

## General Information

## THE ACADEMIC PROGRAM

Being a small liberal arts college, SSC 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 21 areas in the Schools of Arts and Humanities, Behavioral and Social Sciences, Natural Sciences, or Professional Studies (Business Administration, Education, Physical Education and Health). The 22 major areas are

| Anthropology | French | Psychology |
| :--- | :--- | :--- |
| Art | History | Sociology |
| Biological Sciences | Mathematics | Social Sciences |
| Business Administration | Music | Spanish |
| Chemistry | Physical Education | Special Major |
| Drama | Physical Sciences | Speech |
| Economics | Physics |  |
| English | Political Science |  |

Courses are also offered in astronomy, Chinese, ethnic studies, geology, geography, German, health, and philosophy to supplement the existing major programs.
Master of Arts degrees are available in Education, English, History, and Speech.

## THE FACILITIES

The Stanislaus State College campus is the first of the California colleges to be totally constructed from a master plan by an independent architectural firm. The buildings, including a Performing Arts Complex which was opened in the fall of 1970, are very attractive and highly functional and have drawn comment from educational and architectural circles.

The Performing Arts Complex provides classrooms and work areas for drama, music and art students and features a 300 -seat auditorium, studios for painting, lithography and sculpture, a foundry, an art gallery; classrooms and office space. The Library Building includes a rapidly expanding library as well as the cafeteria, administrative offices and several faculty offices. The Classroom Building has science laboratories, classrooms, speech and radio rooms, and a 150 -seat lecture theatre. The athletic Field House which opened two years ago is located near the football field, all-weather track, baseball diamond, and tennis and outdoor basketball courts.
A Science Building, and a residence hall are the next major building projects scheduled on the campus.

## ACCREDITATION

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

## QUARTER SYSTEM

Semester units can be converted to quarter units by multiplying by $11 / 2$ ( 4 semester units $\times 11 / 2=6$ quarter units). Quarter units are converted to semester units by multiplying by $2 / 3$ ( 9 quarter units $\times 2 / 3=6$ semester units).

## LIBRARY

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

The College Library occupies the second floor of a new building. It seats 365 readers, and features a 24 -station listening room, 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 110,000 volumes and about 1,600 periodicals. Backfiles of most of these periodicals are available. The Library is a selective depository of U.S. Government publications and is also a complete depository of California documents.

The Curriculum Library and Children's Collection occupy a separate room in the Library. About 4,800 volumes of courses of study, curriculum guides, and units of work are available. More than 3,000 supplementary textbooks are in the Curriculum Library in addition to complete sets of all California state texts. Other aids for teachers, such as maps, charts, reading laboratory kits, are a part of the Curriculum Library. The College Library is one of the twenty 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 1,700 of the best children's books comprises the Children's Collection.
Since the Library has a staff of seven professional librarians, at least one librarian is available at most times to give reference service and reader advisory service.

## SUMMER SESSION AND EXTENSION

The College offers summer session programs each year with courses available in most of the major areas of the curriculum. The programs offered enable students to complete course requirements more rapidly than would otherwise be possible. The summer session also allows teachers an opportunity to acquire depth in academic fields, to complete credential requirements, and to advance their professional competencies. Summer session is the first term of the academic year. A summer session bulletin is issued annually.
The College offers a program of extension courses. Summer 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 \& Records office toward a degree only if requested by a student.
For information refer to the Office of the Director of Continuing Education.

## INTERNATIONAL PROGRAMS

A study abroad program of global scope is offered by the California State Colleges through the California State Colleges International Programs. Study opportunities for students from all nineteen campuses include full-year curricula at distinguished institutions of higher learning throughout the world.

Cooperating universities abroad include the University of Aix-Marseille, France; the Free University of Berlin and the University of Heidelberg, Germany; University of Athens, Greece; the University of Florence, Italy; the University of Coimbra and the University of Lisbon, Portugal; the University of Stockholm and the University of Uppsala, Sweden; the University of Copenhagen, Denmark; the University of Madrid and the University of Granada, Spain; the State University of Leningrad, U.S.S.R.; Tel Aviv University and the Hebrew University of Jerusalem, Israel; the American University of Beirut, Lebanon; Waseda University, Japan; National Chemgchi University, Taiwan; Andhra University and the Universities of Benares and Delhi, India; the Catholic University, Peru. In the United Kingdom, cooperating universities, which may vary from year to year, have included Birmingham, Bristol, Dundee, Exeter, Leicester, Liverpool, London, Nottingham, Oxford, Sheffield, Southampton and Wales. Cooperative arrangements also exist with the Netherlands School of Business, Netherlands, and the Centro de Estudios Universitarios Colombo-Americano (CEUCA), Colombia, and study opportunities are offered in Ghana, Africa.

Selected students remain enrolled and continue to earn residence credit at the home campus. Academic work successfully completed at the cooperating institutions abroad is applied toward the degree re-
quirements of the college in accordance with college regulations. Students are selected from each college on the basis of academic, linguistic and personal qualifications; as well as career objectives. Requirements include:

Upper division or graduate standing by the beginning of the academic year abroad.
Grades of B (3.0) or better in 30 semester units or 45 quarter units.
Proficiency in the language of instruction, as specified below.
Faculty recommendations.
Cost to the student ranges from $\$ 2,000$ to $\$ 2,500$ and includes roundtrip transportation from San Francisco to the study centers, room and board for the academic year, and health and accident insurance. For 1971-72, these costs are: Taiwan, $\$ 2,000$; France, Germany, Ghana, Portugal, Spain, $\$ 2,200$; Colombia, Israel, Lebanon, Peru, U.S.S.R., $\$ 2,300$; Italy, Japan, $\$ 2,400$; Denmark, Greece, India, Netherlands, Sweden, United Kingdom, $\$ 2,500$. Students remain eligible for any financial aids available at the college, and payments may be made in installments over the year.

Proficiency in the language of the host country is a requirement for the Programs in France, Germany, Latin America, Portugal, Spain and the U.S.S.R. Ordinarily, two years of college-level study of the language, or the equivalent, will satisfy this requirement. In the U.S.S.R., however, three years language study is mandatory. Even where language proficiency is not required, however, competence in the language of the host country will assure broader curricular opportunities.

Application for the 1972-73 academic year should be made early in the fall semester of 1971. Detailed information may be obtained from the College Student Services Office or by writing to the California State Colleges International Programs, 1600 Holloway Avenue, San Francisco, California 94132.

## ETHNIC STUDIES PROGRAM

The Ethnic Studies Program, which came into existence during the fall 1970 quarter, is a multi-disciplinary, mission oriented program. The program aims to describe the pattern and degree of assimilation of ethnic and racial minorities into American society and provide historical perspective on why patterns and degree of assimilation differ. The patterns of prejudice in American society and the barriers to understanding and appreciating the role of the ethnic and racial minorities in American society are studied, as are ways of promoting understanding and communication between members of minority and nonminority groups. Similarly, consideration will be given to encouraging within the minority member a worthy sense of cultural identification while maintaining diverse cultural patterns within the broad framework of American society and developing solutions for contemporary minor-

## General Information

ity problems. Within this framework, the program seeks to prepare interested students for professional work with minorities.

For advising purposes, courses may be considered according to three categories: (1) Very specific courses relevant to present day minority contributions, problems, and their solutions. (2) Courses that are related to Ethnic Studies in that they deal with an aspect of racial or ethnic differentiation, origin, or function. (3) Courses that tend to be supportive of Ethnic Studies concepts.

Courses are listed by departments and appear below. For purposes of determining the value to the individual student, an asterisk will indicate courses of a general or survey nature. These courses will offer an orientation to the minority group or groups as indicated and will be useful to the student who will be taking a limited number of Ethnic Studies courses. Other courses involve prerequisites and are intended for more intensive background and study. Listings of specific courses offered each quarter are made available prior to and during registration.

COURSES RELATED TO ETHNIC STUDIES
GENERAL ETHNIC STUDIES:
${ }^{*}$ ECON. 495. Selected Topics: Economics, Politics, and Social Inequalities (same as PSCI 495)
*EDUC 414. Ethnic Groups and Public Education
*EDUC 422. Teaching the Culturally Different
*ENGL 370. Minority Literature
MATH 102. Mathematics in Human Affairs
PSCI 356. Civil Liberties
PSCI 455. Urban Politics
PSCI 494. Minority Pólitics
*PSCI 495. Selected Topics: Economics, Politics, and Social Inequalities (same as ECON 495)
${ }^{*}$ PSYC 495. Selected Topics: Attitude and Prejudice
*SOCL 224. Social Problems in the United States
*SOCL 301. Race and Ethnic Relations
SOCL 451. Personality, Culture, and Social Structure
AFRO-AMERICAN STUDIES:
ANTH 307. Peoples of Africa
ANTH 308. African Political and Social Systems
ANTH 309. Native African Art and Literature
ART 440. African Art
*ENGL 494. Senior Seminar: Black Novel in America
HIST 286. Africa Before 1800
HIST 287. Africa Since 1800
*HIST 373. Afro-American History
HIST 386. Contemporary Africa
HIST 487. West Africa
HIST 488. East Africa
HIST 489. South Africa
MUS 231. History of Jazz
*MUS 341. Music of Black America
*SOCL 344. Black Studies

## ASIȦN-AMERICAN STUDIES:

ANTH 306. Peoples of East Asia and Oceania ART 443. Oriental Art
CHIN 101, 102, 103. Elementary Chinese I, II, III
CHIN 201, 202, 203. Intermediate Chinese I, II, III
HIST 281. East Asia in the Modern World
HIST 389. East Asian Intellectual History
HIST 480. Modern China
HIST 484. Modern Japan
PHIL 365. Oriental Philosophy
PSGI 315. Social and Political Forces of Southeast Asia
PSCI 411. Revolution and Political Power in Communist China
PSCI 412. Political Structure and Political Dynamics of Modern Japan
SOCL 430. Sociology of East Asia
MEXICAN-AMERICAN STUDIES:
ART 447. Art of the Americas
HIST 251. Colonial Latin America
HIST 252. Latin American States since Independence
*HIST 371. Mexican-American History
HIST 450. History of Mexico
PSCI 314. Latin American Political Systems
-SOCL 400. Mexican-American Studies
SPAN 101, 102, 103. Elementary Spanish I, II, III
SPAN 201, 202, 203. Intermediate Spanish I, II, III
SPAN 343, 344. Spanish-American Literature I, II
SPAN 421. Mexican Literature
SPAN 461, 462. Spanish-American Civilization I, II
*SPAN 498. Individual Study: Dialectical Differences between Chicano and Standard Spanish

MIDDLE-EASTERN STUDIES:
HIST, 284, 285. Islamic History I, II
HIST 384, 385. Modern Middle East I, II
NATIVE-AMERICAN STUDIES:
"ANTH 335. The American Indian
-ANTH 336. Indians of California and Western North America
ANTH 422. Folklore

* Courses of a general or survey nature


## EDUCATIONAL OPPORTUNITY PROGRAM

The Educational Opportunity Program at Stanislaus State College was created in 1969 with the passage of the Harmer bill. The purpose of the program is to provide grants, and where appropriate, educational assistance for undergraduate study at California State Colleges to students who are culturally, educationally and economically disadvantaged, but who display potential for success in accredited curricula offered by the California State Colleges. The program offers such assistance as tutoring, financial aid, counseling and housing to insure that students admitted to the program will succeed.

## ADMISSION TO THE COLLEGE

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 the bachelor's degree, advanced degrees, school service credentials, and several professions.

## ADMISSION REQUIREMENTS

Requirements for admission to the College are in accordance with Title 5, Chapter 5, Sub-chapter 2 of the California Administrative Code, as amended by the Board of Trustees of the California State Colleges on November 24, 1970. 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 FRESHMAN

An applicant who has had no college work attempted since high school graduation will be considered for admission under one of the following provisions. Except as noted, submission of the results of the American College Test (ACT) or the College Entrance Examination Board Scholastic Aptitude Test (SAT) is required.

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

1. College preparatory English, 3 years (4 years preferred)
2. Foreign language, 2 years in one language
3. College preparatory mathematics, 2 years
4. College preparatory laboratory science, 1 year in 11th or 12th grade
5. College preparatory history and/or social science, 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 science, 4 years preferred.
Biological Sciences: Mathematics; through trigonometry; foreign languages, 2 years (French or German preferred); biology, preferably 2 years; chemistry, 1 year; physics, 1 year.

## Admission to the College

Business. Administration: Mathematics, 4 years; English, 4 years.
Chomistry: Mathematics, 4 years; foreign language, 2 years (German preferred); chemistry, 1 year; physics, 1 year.
Drama: English, 4 years, as much high school and independent drama experience as possible.
Economics: History and/or social science, 4 years preferred; mathematics, 4 years preferred.
English: English, 4 years; foreign language, 4 years.
Fine Art: Drawing, painting, printmaking, and sculpture, as much high school and independent work in these fields as possible.
French: Foreign language, 2 years Latin and 2 to 4 years French preferred.
History: History and/or social science, 4 years preferred; foreign language, 4 years preferred.
Mathomatics: Foreign language, 2 years French or German preferred; biology, 1 year; chemistry, 1 year; physics, 1 year; mathematics, 4 years.
Music: Foreign language, 2 years French or 2 years German preferred; music, as much private study as possible and as much participation in both vocal and instrumental music as possible.
Physical Education: Biology; English, 4 years; social science, 4 years.
Physical Sciences: Foreign language, 2 years (German preferred); chemistry, 1 year; physics, 1 year; mathematics, 4 years.
Physics: Foreign language, 2 years (German preferred); chemistry, 1 year; physics, 1 year; mathematics, 4 years.
Political Scionce: History and/or social science, 4 years preferred.
Psychology: Biology; mathematics, 4 years; English, 4 years.
Social Sciences Interdopartmental Major: History and/or social science, 4 years preferred.
Sociology: History and/or social science, 4 years preferred.
Spanish: Foreign language, 2 years Latin and 2 to 4 years Spanish preferred.
Speech: Courses in speech and activities in forensics and drama.
California High School Graduatos 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 minimum eligibility index is 741 for the ACT or 3072 for

## Admission to the College

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，exclud－ ing work completed in the freshman year as well as any courses in physical education or military science．The table below provides the test scores needed with a given grade point average to be eligible for admission．

Admission Eligibility Table for California High School Graduates

| $\begin{array}{ll} \dot{4} \\ \text { B } \\ \text { B } \\ 0 \end{array}$ |  |  |  |  |  |  | A0\％ | सi¢ |  | स゙¢ | 盛范 |  | 域品 | H． ¢ ¢ \％ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3．21 Eligible and with any above acore |  |  | $2.96 \quad 15 \quad 704$ |  |  | $\begin{aligned} & 2.71 \\ & 2.70 \end{aligned}$ | 20 | 004 | 2.47 | 25 | 1096 | 2.22 | 30 | 1296 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.20 | 11 | 512 | 2.95 | 16 | 712 |  | 21 | 912 | 2.46 | 25 | 1104 | 2.21 | 30 | 1304 |
| 3.19 | 11 | 520 | 2.94 | 16 | 720 | 2.69 | 21 | 920 | 2.45 | 26 | 1112 | 2.20 | 31 | 1312 |
| 3.18 | 11 | 528 | 2.93 | 16 | 728 | 2.68 | 21 | 928 | 2.44 | 26 | 1120 | 2.19 | 31 | 1320 |
| 3.17 | 11 | 536 | 2.92 | 16 | 736 | 2.67 | 21 | 936 | 2.43 | 26 | 1128 | 2.18 | 31 | 1328 |
| 3.16 | 11 | 544 | 2.91 | 16 | 744 | 2.66 | 21 | 944 | 2.42 | 26 | 1136 | 2.17 | 31 | 1336 |
| 3.15 | 12 | 552 | 2.90 | 17 | 752 | 2.65 | 22 | 952 | 2.41 | 26 | 1144 | 2.16 | 31 | 1344 |
| 3.14 | 12 | 560 | 2.89 | 17 | 760 | 2.64 | 22 | 960 | 2.40 | 27 | 1152 | 2.15 | 32 | 1352 |
| 3.13 | 12 | 568 | 2.88 | 17 | 768 | 2.63 | 22 | 968 | 2.39 | 27 | 1160 | 2.14 | 32 | 1360 |
| 3.12 | 12 | 576 | 2.87 | 17 | 776 | 2.62 | 22 | 976 | 2.38 | 27 | 1168 | 2.13 | 32 | 1368 |
| 3.11 | 12 | 584 | 2.86 | 17 | 784 | 2.61 | 22 | 984 | 2.37 | 27 | 1176 | 2.12 | 32 | 1376 |
| 3.10 | 13 | 592 | 2.85 | 18 | 792 | 2.60 | 23 | 992 | 2.36 | 27 | 1184 | 2.11 | 32 | 1384 |
| 3.09 | 13 | 600 | 2.84 | 18 | 800 | 2.59 | 23 | 1000 | 2.35 | 28 | 1192 | 2.10 | 33 | 1392 |
| 3.08 | 13 | 608 | 2.83 | 18 | 808 | 2.58 | 23 | 1008 | 2.34 | 28 | 1200 | 2.09 | 33 | 1400 |
| 8.07 | 13 | 616 | 2.82 | 18 | 816 | 2.57 | 23 | 1016 | 2.33 | 28 | 1208 | 2.08 | 33 | 1408 |
| 3.06 | 13 | 624 | 2.81 | 18 | 824 | 2.56 | 23 | 1024 | 2.32 | 28 | 1216 | 2.07 | 33 | 1416 |
| 3.05 | 14 | 632 | 2.80 | 19 | 832 | 2.55 | 24 | 1032 | 2.31 | 28 | 1224 | 2.06 | 33 | 1424 |
| 3.04 | 14 | 640 | 2.79 | 19 | 840 | 2.54 | 24 | 1040 | 2.30 | 29 | 1232 | 2.05 | 34 | 1432 |
| 3.03 | 14 | 648 | 2.78 | 19 | 848 | 2.53 | 24 | 1048 | 2.29 | 29 | 1240 | 2.04 | 34 | 1440 |
| 3.02 | 15 | 656 | 2.77 | 19 | 856 | 2.52 | 24 | 1056 | 2.28 | 29 | 1248 | 2.03 | 34 | 1448 |
| 3.01 | 14 | 664 | 2.76 | 19 | 864 | 2.51 | 24 | 1064 | 2.27 | 29 | 1258 | 2.02 | 34 | 1456 |
| 3.00 | 15 | 672 | 2.75 | 20 | 872 | 2.50 | 25 | 1072 | 2.26 | 29 | 1264 | 2.01 | 34 | 1464 |
| 2.09 | 15 | 680 | 2.74 | 20 | 880 | 2.49 | 25 | 1080 | 2.25 | 30 | 1272 | 2.00 |  | 1472 |
| 2.98 | 15 | 688 | 2.73 |  | 888 | 2.48 | 25 | 1088 | 2.24 | 30 | 1280 | 1.08 |  |  |
| 2.97 | 15 | 696 | 2.72 | 20 | 898 |  |  |  | 2.23 | 30 | 1288 | and <br> below | eligi |  |

Non－Residents Graduating from High Schools in Other States or Possessions．An applicant who is a non－resident for tuition pur－ poses 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 equiv－ alent 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．

## Admission to the College

Non-High School Graduates. An applicant who is over 21 years of age, but has not graduated from high school will be considered for admission only when his preparation in all other ways is such that the College believes his promise for academic success is equivalent to that of eligible California high school graduates.

High School Students Entering Advanced Placement Program. A student still enrolled in high school will be considered for enrollment in the College's Advanced Placement Program if he is recommended by his principal and his preparation is equivalent to that required of eligible California high school graduates. Such admission is only for 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 directed to the Director of Admissions.

Other Applicants. An applicant not admissible under one of the above provisions should enroll in a junior college or other appropriate institution. 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 AN UNDERGRADUATE TRANSFER

An applicant who has attempted college work after high school graduation will be considered for admission under one of the following provisions. Undergraduate transfer applicants who would be entering the College with fewer than ninety quarter units (sixty semester units) completed are required to submit the results of the American College Test or Scholastic Aptitude Test.

Applicants with 90 or More Quarter Units. An applicant who has completed 90 or more quarter units ( 60 semester units) will be admitted if he has achieved a grade point average of 2.0 (C) on all college work attempted and he was in good standing at the last college attended. The minimum grade point average requirement for non-California residents is $2.4(\mathrm{C}+)$.

## Admission to the College

Applicants with Fower Than 90 Quarter Units. An applicant who has completed fewer than 90 quarter units ( 60 semester units) may be admitted if he meets the above requirements and he meets requirements currently in effect for first-time freshmen or, if he has been in full-time contunuous enrollment at a college since his graduation from high school, he meets the requirements in effect for first-time freshmen at the time of his high school graduation.

Other Applicants. Only under the most unusual circumstances will an applicant not meeting either of the above provisions be considered for admission. Permission is granted by special college action.

## GRADUATE STUDENTS

Unclassified Graduate Standing. For admission with a graduate standing as an Unclassified Graduate Student, a student shall have completed a four-year college course and hold an acceptable baccalaurete degree from an accredited institution, or shall have completed equivalent academic preparation as determined by the appropriate college authorities; and must satisfactorily meet the professional, personal, scholastic, and other standards for graduate study, including qualifying examinations, as the appropriate college authorities may prescribe.
Classified Graduate Standing. A student who is eligible for admission to a State 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 examination, as the appropriate college authorities may prescribe. Classified status in a graduate program at the College is obtained only through formal application to the appropriate academic department chairman for master's degree programs or to the Credentials Secretary for school service credential programs.

## STUDENTS FORMERLY ENROLLED

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

## HONORS AT ENTRANCE

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

## REDIRECTION OF APPLICANTS

It may not always be possible for the College to accommodate all qualified applicants. If an application is filed and it later becomes evident that processing will not be possible, it and any supporting documents may, at the applicant's request, be forwarded to any State College where space is still available. No additional application fee is required.

## INTRA-SYSTEM TRANSFER

A student at a California State College eligible to continue at that college is eligible for admission at any other State College provided he is in good standing and has a C average at the first institution. A student on probation at the first State College may apply for intra-system transfer; however, admission to the second State College will be subject to the policies and procedures governing probationary admission at the second State College. Transfer to another State College, of course, is subject to space and program availability. Intra-system transfer request forms are available from the Admissions and Records Office. Intra-system transfers are subject to the regular application filing dates.

## ADMISSION PROCEDURE

## CALIFORNIA STATE COLLEGES APPLICATION PROCEDURE

To obtain admissioh consideration by the California State Colleges all prospective students must file a completed application for admission within the appropriate filing period. The completed application includes the application form, the California State College Residence Questionnaire, and the non-refundable application fee of $\$ 20.00$. Each applicant may file only one application for any one term within the California State College System. The application should be obtained from, and filed with, the college of first choice. Second, third and fourth choice campuses should be listed on the application.

## 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 quarter and who either was not enrolled for residence credit or audit courses, or who withdrew from the College, during the regular term preceding the quarter for which he intends to enroll. A student enrolled at the College who qualifies for a baccalaureate degree, master's degree, or credential must apply for readmission with graduate standing and declare his new educational objective so that he may be considered for continued enrollment. Enrollment in summer session or extension courses does not exempt a person from the above requirements.

Students Seeking Part-Time Enrollment. Students seeking to enroll in a fall, winter, or spring quarter for a part-time program of courses also must complete the admission procedure and are subject to the admission requirements stated above.

Students Seeking Enrollment as Auditors Without Credit. Students seeking only to audit courses without credit must complete the admission procedure. If accepted, these students must pay the same registration fees as other students. (See Auditors.)

## Admission to the College

Students Seeking Summer Session or Extension Enrollment. Students seeking to enroll only for summer session or extension 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. 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 the admission requirements.

## WHEN TO APPLY

Applications for admission are available on request from the Admissions and Records Office and are accepted according to the following schedule:

| TERM | INITIAL FILING PERIOD | Late FILING PERIOD |
| :--- | :--- | :--- |
| Fall Quarter/Semester | November 2-30, 1970 | December 1-June 30, 1971 |

SEMESTER TERM STATE COLLEGES
Chico
Fresno Fullerton Long Beach Sacramento

San Diego
San Fernando
San Francisco
San Jose
Sonoma

QUARTER TERM STATE COLEGES
Bakersfield Cal Poly, Dominguez Hills Kellogg-Voorhis Hayward Humboldt Los Angeles

San Bernardino Cal Poly, San Luis Obispo Stanislaus

## SPACE RESERVATIONS

All applications received during the initial filing period will receive equal consideration within the colleges' established enrollment categories and quotas, irrespective of the time and date they are received.
Applicants who can be accommodated within enrollment quotas will receive confirmation of space reservation. Although the space reservation is not a statement of admission, it is a commitment on the part of the college 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 state college where space has been reserved. The college will inform him of the number of copies of transcripts required, dates for

[^1]
## Admission to the Collage

submittal, and where they should be sent. The student should not request that transcripts be sent until requested to do so by the College where space bas been reserved.

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

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

## LATE FILING PERIOD

Colleges not filling enrollment categories during the initial filing period will continue to accept applications during the late period until quotas are filled. Enrollment priorities within the last period will be granted in chronological order of application receipt by the colleges.

## APPLICATION FEE

A fee of twenty dollars ( $\$ 20$ ) is charged for processing of applications for admission to the College. This fee is non-transferable, nonrefundable and applies to (1) all persons not regularly enrolled at the College during any of the three quarters immediately preceding, and (2) former students who subsequently registered in another college for residence, summer, extension, or correspondence courses. Students seeking summer session or extension registration only and those seeking only to audit courses without credit 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 quarter, October 1 for the winter quarter, and January 1 for the spring quarter.
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.

## Admission to the College

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 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 record 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.

Graduate Studenfs. 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, an official transcript from the institution at which his degree was earned. A graduate who is seeking admission to a master's degree or credential program must also request that complete official college transcripts be sent at application directly to the department chairman or Credentials Secretary, as appropriate, from each college (other than SSC) and university at which he registered.

Former Students. Former students of the College who are returning after graduation or an absence of one or more quarters are required to submit 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 ninety quarter (sixty 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 request the testing service to forward score reports directly to the College.

Applicants for admission should take the ACT or SAT not later than March for fall admission, October for winter admission, and January for spring admission.

Registration forms for either test may be obtained from high school and college counselors, or directly from the office of the testing service. American College Test registration arrangements are made by writing ACT Registration Unit, P.O. Box 168, Iowa City, Iowa 52240. The ACT will be given during 1971-72 on the following dates:

Saturday, July 17, 1971
Saturday, October 16, 1971
Saturday, December 11, 1971

Saturday, February 19, 1972
Saturday, April 22, 1972
Saturday, July 15, 1972

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

Saturday, July 10, 1971 Saturday, January 8, 1972
Saturday, October 9, 1971
Saturday, November 6, 1971
Saturday, December 4, 1971

Saturday, March 4, 1972
Saturday, April 15, 1972
Saturday, July 8, 1972

Applications and fees should be sent directly to the College Entrance Examination Board, Box 1025, Berkeley, California 94701, in time to be received not later than four weeks and preferably six weeks prior to the test date selected.
Special institutional administrations of the SAT on additional dates to be announced will be arranged exclusively for applicants of the College. Interested applicants should contact the College Testing Office, regarding special institutional administrations of the SAT.

## HEALTH HISTORY STATEMENT AND EXAMINATION

A complete physical examination by the student's private physician is required for the following categories of admitted students: 1) new students enrolling for 8 or more units; 2) former students of the College enrolling for 8 or more units who were not regularly enriolled at the College during any of the three preceding quarters. This physical examination must be sent to the College Health Center by the physician. All other admitted students must submit a health history statement. Appropriate forms will be provided all admitted students for submission prior to registration.

## STATEMENT OF RESIDENCE

A Statement of Residence must be submitted by a student (1) who enrolls for the first time in a regular term at the College, (2) whose residence status has changed since his last enrollment, and (3) who was not regularly enrolled at the College during any of the three quarters immediately preceding.

## Admission to the College

## 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 Educational 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

The College participates in the Advanced Placement Program of the College Entrance Examination Board. Advanced placement in sequential courses and/or unit and course credit may be awarded to entering students for scores of 3, 4 and 5 on a CEEB Advanced Placement examination.
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 Freshman.)

## transfer of credit from a junior college

Junior college credit is allowed up to a maximum of 105 quarter ( 70 semester) units. No upper division credit may be allowed from a junior college, nor may credit be allowed for professional courses in education or courses not appropriate in purpose, scope, and depth to a baccalaureate degree.

## CREDIT FROM NON-ACCREDITED COLLEGES

Courses from institutions of higher learning which are not accredited to offer work leading to the baccalaureate degree by a regional accrediting agency recognized by the U.S. Office of Education and courses from those which are accredited as a "specialized institution" may be accepted
for credit toward advanced standing and fulfillment of graduation requirements only if appropriate in purpose, scope and depth to 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 36 units at the College with a 2.0 (C) grade point average or better.
A student with a degree from such an institution may have his educational experience recognized by the College as equivalent to the completion of a baccalaureate degree from a regionally accredited institution upon adviser recommendation, department endorsement, and completion of 36 units at the College with a grade point average of 2.0 (C) or better.

## CREDIT FOR EXTENSION AND CORRESPONDENCE COURSES

The maximum credit for correspondence and extension courses which may be allowed toward the bachelor's degree is 36 quarter uniss, of which not more than 18 may be transferred from other colleges.

## WORKSHOP CREDIT

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

## CREDIT FOR MILITARY SERVICE

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

## ACADEMIC ADVISEMENT

The Academic Advising Office directs the academic advising program at the College. Such advising is primarily the responsibility of faculty members in the specific academic areas. Upon admission a student is referred to an adviser in his declared major field of study or to a general adviser if he is undeclared or is without a Stanislaus State College 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 Educational Objectives.) If a student is uncertain as to a choice of major

## Admission to the College

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 quarter 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 an advising conference only after he has examined course offerings in the Class Schedule, received his program planning form (if issued), and prepared a Trial Study List, including alternate courses. If he is being advised for the first time, the student must take to the advising conference the prepared Trial Study List, the Evaluation of Credit form (if issued), complete set of transcripts covering all previous work, and any catalog(s) of former college(s) attended.

Information concerning certain preprofessional programs is available from the following sources:

Premedical, predental, prepharmacy and other allied health servicesDepartment of Biology;
Prelaw-Department of Political Science

## 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 Class Schedule listing courses offered and the procedure for registration is available before registration for each quarter. At registration, every student is required to file an Official Program card with the Admissions and Records Office. Registration by mail or proxy is not permitted unless specifically authorized by the Registrar. Late registrants will find themselves handicapped in arranging their programs and must pay a $\$ 5.00$ late registration fee, as required by State law.
If a student unofficially drops a course or leaves the College without first reporting to the Admissions and Records Office to make the change official, he will receive grades of $F$. If he attends a course without officially adding it he will receive no credit for the course.

Students who do not attend the regularly scheduled class meetings during the first week of class after registration may be dropped from the class roll by the instructor.

The College is accredited by the California State Board of Education for programs leading to the following credentials:

1. Standard Teaching Credential with a Specialization in Elementary School Teaching.
2. Standard Teaching Credential with a Specialization in Secondary School Teaching.
3. Restricted Credential Authorizing Service as a Speech and Hearing Specialist.
Detailed information on the various credential programs is found in either the Education section or the Communication Arts and Sciences section of the catalog.

Coordination of credential programs is a college-wide function under the direction of the Dean of Professional Studies. Applications for admission to a credential program and institutional recommendations for life credentials are coordinated through the Credentials Secretary.

## ADMISSION TO A CREDENTIAL PROGRAM

A credential candidate needs to complete certain preliminary procedures prior to being screened. If accepted, the candidate may then seek advisement from an assigned credential adviser and begin to complete the steps outlined in the Credentials Handbook.

The student at the time of admission to a credential program needs to become familiar with the eligibility requirements as stated in the college catalog. Admission to the college does not imply admission to a credential program. To apply for admission to a credential program, a student must be eligible for admission to the college, must not be on academic probation, and must have an accumulative grade point average of at least $2.25(\mathrm{C}+)$. Secondary credential applicants also need a 2.50 average in teaching major and minor.

Applications must be made with the Credentials Secretary by the candidate no later than the close of the initial filing period for admission to the college for the quarter he wishes to begin a program. For 1971-72 these deadlines are as follows:

Quarter
Fall 1971
Winter 1972
Spring 1972

Deadline
November 30, 1970
June 30, 1971
August 31, 1971

Registration material for winter and spring, 1972, may be obtained anytime during the spring quarter, 1971. A candidate filing during the late filing period for college admission will be considered only if quotas have not been filled during the initial filing period.

## Academic Standards

Materials that must be filed with the Credentials Secretary include the following: (Application (CAP-1) and Evaluation forms (CAP-5) may be found in the rack opposite the Admissions and Records window)

1. Application for admission to a credential program (CAP-1).
2. Official transcripts of all college work, except SSC.
3. Autobiography emphasizing college interests and activities.
4. Two evaluations from former instructors in major and/or minor areas (CAP-5).
5. Two evaluations from supervisors of youth related activities (CAP-5).
6. An evaluation from your principal if you have taught (CAP-5).
7. The MMPI psychological examination (available through college testing officer).
Following grade point verification by the credential evaluation technician, and action by the screening committee, successful candidates will be notified by the committee.

## CONTINUANCE IN A CREDENTIAL PROGRAM

Retention in a teaching credential program is based upon continuous satisfactory student performance. A grade point average of 2.50 in required courses must be maintained while in program. The CAP file and all required records are also subject to final review prior to qualifying for credential recommendations by the College.

## ACADEMIC STANDARDS

## HONOR LIST OF STUDENTS

Each quarter the Vice President for Academic Affairs publishes a list of undergraduate honor students. To qualify for the list a student, during the quarter under consideration, must (1) register for and earn a minimum of 12 units of credit at the College, and (2) achieve a 3.5 ( $\mathrm{B}+$ ) grade point average for all course work attempted at the College.

## GRADING SYSTEM

A-Excellent -------------------------------4 grade points per unit
B-Very Good 3 grade points per unit
C-Satisfactory
2 grade points per unit
D-Unsatisfactory
1 grade point per unit

P-Passing ..........................................No effect on grade point average
CR-Ungraded Credit - No effect on grade point average
IS-Incomplete, Satisfactory-No effect on grade point ayerage; reverts to $F$ if not removed by the last day of the third following quarter, except when an extension of time has been granted

IU-Incomplete, Unsatisfactory-0 grade points; reverts to F if not removed by the last day of the third following quarter, except when an extension of time has been granted
H-Audit $\qquad$ No effect on units earned or grade point average
NC-No Credit ..._._._._ No effect on units earned or grade point average
NR-No Report ___ No grade reported by instructor
W-Withdrawal, Ungraded___ No effect on units earned or grade point average WS-Withdrew, Satisfactory .-..... No effect on units earned or grade point average WU-Withdrew, Unsatisfactory 0 grade points (equivalent to grade of $F$ )
"Pass" (P) or "Fail" ( F ) grades may be awarded in courses for which standard letter grades are inappropriate, such as workshop, public performance, practicum, or activity courses. A grade of $P$ indicates the achievement of a sufficient portion of the course objectives to justify the awarding of unit credit. The grade of P or F will be used for all sections of a course and given to all students in each section. Courses in which P and F grades are awarded will be designated in the Class Scheducle or in this catalog.
Credit/No Credit Grading. Any student not on probation may elect to be graded on a "Credit-No Credit" (CR-NC) basis in any course approved for credit grading. All academic advisers have a list of all courses applicable for a credit-no credit grade.
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 during the first week of class.

The "Credit" (CR) grade is earned for "C" work or better as judged by the instructor concerned. "Credit" and "No Credit" (NC) grades will have no effect on grade point average. Courses taken under the credit grading system will not apply to major or minor requirements. A maximum of 32 quarter units, including no more than 20 upper division units, with "Credit" (CR) grades may be applied toward a baccalaureate degree.

## SCHOLARSHIP STANDARDS*

Good Standing: "Good Standing" means that an undergraduate student must have at least a 2.0 (C being 2.0 ) in each of the following: (1) cumulative grade point overage based on total acceptable units attempted at all colleges, and (2) total units attempted at Stanislaus State College. A student on probation or disqualification is not in "Good Standing."
Probation: An undergraduate student will be placed on probation if either his grade point average based on total acceptable units attempted at all colleges is below 2.0 (C being 2.0) or his grade point average based on all units attempted at Stanislaus State College is below 2.0. A

[^2]
## Academic Standards

student will be continued on probation until both his overall and his Stanislaus State College grade point average are 2.0 or better or until he is disqualified under one or more of the provisions of the disqualification standards.

Disqualification: An undergraduate student becomes disqualified under one or more of the following provisions:

1. Is admitted or readmitted on probation and fails to meet the conditions established at the time of admission.
2. Has a cumulative deficiency on either the overall GPA or Stanislaus State College record equal to or greater than that indicated below:
Freshman-Sophomore (less than 90 quarter units completed) 23 grade point deficiency.
Junior ( $90-1341 / 2$ quarter units completed) 14 grade point deficiencý.
Sehior ( 135 or more quarter units completed) 9 grade point deficiency.
3. Fails to earn at least a 2.0 ( C being 2.0) grade point average in a quarter while on probation.
4. Dóes not earn at least a 1.0 grade point average during any quarter.
5. Fails to remove any grade point deficiency within two consecutive quarters of admission on probation or of the quarter in which the grade point deficiency was incurred.
Reinștatement After Disqualification: A student who is disqualified will not normally be considered for reinstatement and readmission until after two quarters of nonattendance at Stanislaus State College. The summer session does not count as a quarter.
After completion of thë period of disqualification and after fulfillment of any other requirements stipulated, a student may petition for reinstatement 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 objective evidence in writing 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. A student's Stanislaus State College cumulative grade point average must be raised to 2.0 ("C") before a student will be placed on "Good Standing."

## SCHOLARSHIP STANDARDS FOR GRADUATE STUDENTS

A graduate student becomes disqualified (1) if the postgraduate grade point average at Stanislaus State College falls below 2.0, (2) or if the overall postgraduate grade point average falls below 2.0.

## POLICIES AND PRỜCEDURES

Note: Students are beld individually responsible for knowing and complying with these regulations.

## GENERAL EDÜCATION CREDIT

The Class Scheduile and this catalog indicate the courses offered at the College which are applicable to General Education requirements. Since 1967-68 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), and the General Education "Arts and Sciences Electives requirement" (1965-67). All enrolled undergraduates should therefore consult the curreht catalog section entitled General Education, which lists acceptable General Education courses.

## CLÀSS ATHTENDÁNCE

Regularity in attending classes is assumed. Students are allowed no specified nuimber of absences, but legitimate absences for which instructors will make allowances are: illness, accident, death in family, religious holidays, 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 dropped from the class roll by the instructor.

## AUDITORS

Admitted students may register in courses as auditors without credit with permission of the instructor provided there is room. 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 without a grade, ùnless he merits a WS grade. An auditor is not permitted to take examinations in the course. An audited coùrse 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

## Policies and Procedures

find out whether a course taken in concurrent enrollment will be accepted. Enrollment forms are available at the rack across from the Admissions and Records Office.

## OFFICIAL PROGRAM LIMITS

A student electing during a fall, winter, or spring quarter to carry a course load in excess of 18 units, including audit, incomplete courses, and concurrent enrollment courses, must submit a petition approved by his major adviser and the Dean of the School at the time of registration. When courses in the 500 series are included, a program normally may not exceed three courses or twelve units. Students with outside responsibilities are advised to reduce their study loads proportionately. Excess unit petition forms are available at the Admissions and Records Office forms rack.

## CREDIT BY. EXAMINATION

Any student in resident study who can offer convincing evidence of having achieved the objectives of a course offered at the College for which credit has not otherwise been allowed may petition through the instructor to the department head concerned for a special course challenge examination in order to fulfill the course requirement and/or earn unit credit toward a degree. Forms for this purpose are available at the Admissions and Records Office forms rack. Special course sections for credit by examination may be offered in the Class Schedule by a department. The letter grade earned on a unit credit examination will be recorded on the student's permanent academic record and appropriate grade points will be assigned. Credit received by examination will not count toward the residence requirement of the College. In individual cases a maximum of credit by examination may be imposed.

## INDIVILUAL 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 nine units of individual study credit is the maximum permitted toward a degree, credential, or other educational objéctive. These courses are numbered 498 and 598 (and 698 in professional fields) 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 maỳ not be offered every quarter.

A student seeking to enroll for an Individual Study course must at registration file an approved Request for Course by Individual Study form. 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.

## POSTBACCALAUREATE CREDIT

All courses taken during the term in which a student earns his degree that are not needed to fulfill degree requirements will, upon the approval of the Request for Postbaccalaureate Credit form, be indicated on his Permanent Academic Record as acceptable postbaccalaureate credit. Request forms are obtained from and filed with the Admissions and Records Office.

## dECLARATION OR CHANGE OF EDUCATIONAL OBJECTIVES

A student who selects or changes his educational objective at the College after admission must file a Declaration or Change of Educational 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. If a student is merely noting an interest in declaring or changing a credential or advanced degree type, no signatures are necessary.

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

## Change of official program

No change in a student's program of courses will be recognized unless it is made on official forms, properly signed, and accepted at the Admissions and Records Office. Unauthorized withdrawal or dropping of a course will result in a final grade of $F$.
A student may drop a course during the quarter, subject to the following regulations:

1. A course may be removed from the official program of courses if an approved Request for Program Change or Withdrawal form is filed in the Admissions and Records Office on or before the last day to drop a course without a grade, as shown in the Academic Calendar.
2. After the last day to drop a course without a grade, a student who officially drops a course in which he is doing $\mathbf{C}$ work or better, as judged by his instructor, will receive a grade of WS; if his work is $D$ or $F$, he will receive a grade of WU, which is equivalent to an $F$.
3. A student may not drop a course after the last day to drop a course, as shown in the Academic Calendar.
Students may add courses by filing an approved Request for Program Change or Withdrawal form in the Admissions and Records Office not later than the last day to add a course, as shown in the Academic Calendar.

## Policies and Procedures

## 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 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 exempt him from the regular application for readmission procedure and filing dates.

## WITHDRAWAL FROM COLLEGE

A student may withdraw from the College by filing an approved Request for Program Change or Withdrawal form 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 quarter
Students who file requests for withdrawal after the last day to drop a course without a grade, as shown in the Academic Calendar, will receive WS or WU grades. The WU grade is equivalent to an F. (See Grading System.) A student who takes unauthorized leave may receive a final grade of $F$ in each course for which he was registered. A student registered for only one course may not withdraw after the last day to drop a course; all other students may not withdraw after the last day of instruction.

## INCOMPLETE WORK

Incomplete grades of IS and IU are given for illness or other reasons beyond the control of the student. An IS is awarded if the student is doing C work or better at the time the incomplete grade is awarded as judged by the instructor; a student doing D or F work at the time the incomplete grade is awarded shall receive the grade of IU. Incomplete grades revert to F if not removed by the last day of the third following quarter, except when an extension of time is granted. If missing the final examination is the cause of the incomplete grade it should be made up during the next regular quarter on a date determined by the instructor concerned. An IS grade shall have no effect on a student's grade point average. An IU grade is equivalent to an F. Responsibility for removing an incomplete grade rests with the student. In cases of prolonged illness or any emergency which necessitates an extension of time to remove the grade, the student may petition the Academic Standards Committee through his instructor. Students may not be permitted to graduate until all incomplete grades are removed.


## 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 quarter and summer session.

## 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 that 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 student is entitled to one free transcript; a fee of $\$ 1.00$

## Foes and Refunds

for each subsequent 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, if 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.

## FEES AND REFUNDS

Fees are established in accordance with State laws and the regulations of the Trustees of the California State Colleges and are subject to change as prescribed by law.

Auditors must pay the same fees as students enrolled for credit.

## 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 3.9 Uniss $\quad$ _ $\$ 26.50$

8.0 to 11.9 Units ___ _ _ _ _ _ $\quad 33.00$

Associated Student's Fees
Regular students (8.0 Units or more)
Regular Students-First Quarter8.00
Second Quarter ..... 6.00
Third Quarter ..... 6.00
Limited Students-First Quarter ..... 4.00
Second Quarter ..... 3.00
Third Quarter ..... 3.00
Summer Session (effective June, 1966) ..... 2.00Except that no student shall be required to pay an aggregate amountin excess of $\$ 20.00$ for the entire year.
Student Union Fees
Regular Students-Each Quarter ..... 5.00
Limited Students-Each Quarter ..... 2.50
Summer Session ..... 2.50
Postsession ..... 50
OTHER FEESS AND CHARGES (in addition to registration fees)
Nonresident tuition-(maximum $\$ 370.00$ per quarter) subject to change
Per unit, as follows:
For the first 14 units (per quarter) ..... $\$ 25.00$
For the 15th unit and over (maximum) ..... 370.00
Foreign Nonresident tuition (maximum $\$ 200$ per quarter)
Per unit, as follows:
For the first 14 units (per quarter) ..... $\$ 13.50$
For the 15th unit and over (maxinum) ..... 200.00
Application Fee (nontransferable and nonrefundable) ..... 20.00
Late Registration Fee (nonrefundable) ..... 5.00
Graduation Fee ..... 10.00
Check returned from bank for any cause ..... 2.00
Change of Program ..... 1.00
Transcript of Record (No charge for first copy) ..... 1.00
Failure to meet administratively required appointment or time limit ..... 2.00
Music studio lessons-per lesson ..... 10.00
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 ..... $\$ 16.00$
Extension Courses-per unit:
Lecture and Discussion Courses ..... 12.75
Actiyity Courses ..... 16.25
Science Laboratory Courses ..... 25.25
Parking Fees:
Non-reserved spaces, Autos:
Regular students, per quarter ..... 9.00
Limited students, per quarter ..... 4.00
Six-week session or period ..... 5.00
Three-week session or period ..... 3.00
Reserved spaces, per month or major fraction thereof ..... 5.00
Two-wheeled, self-propelled vehicles licensed by State Department of Motor Vehicles per quarter ..... $25 \%$ of above
Alternate vehicle (auto) in addition to fee for first vehicle, per quarter ..... 1.00
Alternate, two-wheeled vehicle, per quarter ..... 1.00

## STUDENT SERVICES

The Student Services Office is organized to aid students where needed in order to make their college days more rewarding and meet those problems which prevent them from fully benefiting from the educational program. Specific services provided include general information; orientation; personal counseling; vocational interest, personality and aptitude testing; career counseling and placement; part time jobs; financial aids; foreign student advisement; alumni affairs; selective service counseling; housing information; health services; activities and clubs; and student government. More detailed information concerning Student Services is available in the Student Services Handbook or can be obtained by stopping by L-102.

## ORIENTATION AND GENERAL INFORMATION

The office organizes orientation programs for incoming students each quarter and also serves as a central place for students to direct questions of any sort during the year.

## COUNSELING

Personal counseling is available from a staff of trained counselors. The staff is anxious to help with any problems of concern to a student including drugs, social relationships, family problems, college adjustment, etc.

## HOUSING

There is no on-campus housing but the College does maintain a current listing of off-campus rooms, apartments, and houses available for students within a 15 -mile radius. Immediately adjacent to the campus is a privately owned and operated coeducational dormitory housing 168 men and women. Write the Director for further information or an application: Yosemite Hall, 3500 Geer Avenue, Turlock, California 95380. None of these off-campus facilities are inspected or supervised by the College.
Students who wish help in finding housing accommodations are encouraged to visit the Housing Office prior to enrollment for maximum assistance.

## INTERNATIONAL STUDENTS

Special services for international students are coordinated by the Foreign Student Adviser. These services include advisement relating to visa status, employment, housing, academic procedures and requirements, finances, social standards and customs, and opportunities offered by the College and community.

## CAREER PLANNING AND PLACEMENT

Qualified students and alumni are assisted in securing full-time or part-time 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 résumés and letters of application; listing of open positions; arranging interviews by employers seeking personnel, and maintaining a career library.

Teacher candidates are eligible for placement assistance after acceptance into a credential program. Business and professional placement assistance is provided any student who has attained senior standing. While the placement staff desires to provide assistance, the responsibility for preparing the placement folder and for actually seeking a position rests with the individual student.

## PART-TIME AND SUMMER EMPLOYMENT

A part of the responsibility of the Placement Office is to assist students who wish part-time employment. A current list of such opportunities is maintained. Students with special abilities or requirements should consult with the Placement Director and his staff.

## FINANCIAL AIDS

The Financial Aid Office administers and coordinates the majority of financial assistance programs available to students to meet their educational expenses. The types of assistance available come from Federal, Stäte, and private sources.

Scholarships. A limited number of scholarships and awards are offered each year to enrolled students demonstrating a financial need and scholastic attainment. Some of these scholarships are limited to particular fields of study. Scholarships are normally awarded in the spring for the following academic year to continuing and first-time students. Inquiries regarding scholarships and the procedure for applying should be made to the Financial Aid Office.
The following scholarships are administered by Stanislaus State College:

American Assyrian Civic Club of Turlock
American Business Women's Association
Antique Club of Turlock
California Congress of Parents and Teachers Elementary Education
California Retired Teachers Association-Laura Settle
Epsilon Nu of Delta Kappa Gamma
Rotary Club of Turlock
Soroptimist Club of Turlock
Statesmen of Stanislaus
Time Fire and Casualty Foundation, Inc.
Turlock Van and Storage
Terry Ouellette Memorial
Time Life Insurance Company
Turlock Refrigeration Company
Walter A. Fisher Memorial
White Scholarship and Loan
William Chad Art Loan Fund
Federal Programs. The majority of financial assistance available to students to meet their educational expenses is provided through Federal sources. Students interested in applying for the Federal programs described below should inquire at the Financial Aid Office for application materials.

National Defonse Student Loan. The program was established by Title II of the National Defense Education Act of 1958. It provides long-term, low-interest loans to qualified students. Undergraduates and graduate students may participate with 'a maximum loan of $\$ 1000$ per academic year. Repayment is made after a student completes his education or is no longer enrolled in college.

College Work-Study. The program was established by the Economic Opportunities Act of 1964. Students from low-income families may qualify for part-time employment on or off campus to assist in defraying their educational expenses. A student may work a maximum of fifteen hours a week.

Educational Opportunity Grant. The program was established by Title IV of the Higher Education Act of 1965. Grants are made to students of exceptional financial need, who, for lack of financial means of their own or of their families, would be unable to enter or remain in institutions of higher education without such assistance.

Federal Insured Student Loan. Loans are made available through lending institutions to students whose family's adjusted income is less than $\$ 15,000$ per year. A student may borrow up to $\$ 1500$ per year. Applications for the Federal Insured Loan are available at the Financial Aid Office.

Law-Enforcement Education Grant Loan Program. The LawEnforcement Education Grant Program makes available payments for tuition and fees not to exceed $\$ 200$ per quarter to full-time employees of publicly-funded law enforcement agencies. Loans may be obtained by students intending to make law-enforcement a career upon graduation. Loans also are available to employees of law enforcement agencies who are enrolled as students.

Student Assistant Program. This program is funded through the state budget and is administered through the various academic departments on campus. Jobs are not necessarily based on need and often revolve more on ability in the academic area.

Emergency Loan Fund. Emergency loans to meet educational expenses are available to students. A maximum of $\$ 100$ may be borrowed with repayment due within forty-five days.
More detailed information on work opportunities, loans, and scholarships may be obtained at the Financial Aid Office, Stanislaus State College, 800 Monte Vista, Turlock, California 95380.

## HEALTH SERVICES

A complete physical examination by the student's private physician is required for the following categories of admitted students: 1) new students enrolling for 8 or more units; 2) former students of the College
enrolling for 8 or more units who were not enrolled for 8 or more units at the College during any of the 3 preceding quarters. This physical examination form must be sent to the College Health Center by the physician before registration. All other admitted students must submit a health history statement. Appropriate forms will be provided all admitted students.

The parent or guardian of each minor student is required to sign a statement giving the College permission to refer a student for treatment in the event of illness or injury. This does not prevent a student from secking private medical care with a physician of his choice.

## COllege medical services

The College maintains a Health Center in Room 117 of the Classroom Building, which is staffed by a registered nurse. The Health Center is open Monday through Friday between 8:30 A.M.-12 noon and 12:30 P.M.-5:00 P.M.

Out-patient care is provided by the nurse or by referral to local doctors. These services are provided as part of the student health fees and include' emergency care for injury and acute illness; transportation; necessary lab tests, X-rays, consultation; 'some prescriptions; immunizations; and health counseling.

## SUPPLEMENTAL HEALTH INSURANCE

The very basic out-patient 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.

## VETERANS ASSISTANCE

The 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.
Enrollments and payments for those in training or eligible for training under the War Orphans Educational Assistance Act, Public Law 634, and educational assistance for the children of veterans permanently and totally disabled from wartime service-connected disability under Public Law 361 will continue.

The Califomia Educational Assistance to Veterans terminated June 30, 1965. The California State Educational Assistance to dependents of deceased or disabled servicemen is expected to continue indefinitely.

The Veterans Readjustment Benefits Act of 1966, Public Law 89-358, became effective June 1, 1966, and provides assistance for education and training for veterans who have served on active duty with the Armed Forces after January 31, 1955.
To qualify for full benefits from veteran's programs an eligible student must enroll for at least 14 units during a fall, winter, or spring quarter.

## Student Services

Further information about veterans programs may be obtained from the Veterans Clerk in the Admissions and Records Office. A veteran who plans to enroll under one of the federal or state plans of educational benefits is urged to contact the Veterans Clerk as far in advance of registration as possible.

## SELECTIVE SERVICE

Students seeking deferment from service in the Armed Forces must file written requests for deferment with their local draft boards. Undergraduate students may use SSS Form 104, Request for Undergraduate Student Deferment, available from any Selective Service Office. Graduate students should consult their local boards.
Undergraduate students seeking deferments are also responsible for requesting the Admissions and Records Office to send SSS Form 109, Student Certificate, to their draft boards. Graduate students in an approved master's degree or credential program may request to have SSS Form 103 sent to their draft boards. These forms need only be requested once each academic year and are used to certify admission to the College, satisfactory progress, and completion or termination of a degree or credential program. Satisfactory progress is normally considered as the earning of 45 quarter units each year while enrolled for a minimum of 12 units each quarter.

Further information about selective service may be obtained from any Selective Service Office, from the Student Service Office, or from the Admissions and Records Office.

## STUDENT ACTIVITIES AND CLUBS

Student activities are primarily financed and organized by the Associated Students. There is also an active group of clubs organized for special purposes and activities. The Student Services Office assists and advises the ASSSC and club organizations. These groups must be chartered to be able to use campus facilities.

The following are presently the chartered organizations on campus: Biology Club, Black Student Union, SSC Business Club, Campus Christian Fellowship, Committee for Educational Experimentation, Committee for Responsible Government, Creative Arts Workshop, Economics Unlimited, Fine Art Club, French Club, Help Our Polluted Earth, International Club, Literary Art Guild, Literary Society, Los Companeros, M.E.C.H.A., Music Educators National Conference, Newman Community, Pi Kappa Delta, Political Science Organization, Psychology Club, Ski Club, Sociology Club, Sons of Liberty, Students for Community Development, Students California Teachers Association, Students for Community Involvement, Theatre Society, Yosemite Residence Hall Student Association, Young Americans for Freedom, Young Democrats, Young Socialist Alliance.

Students interested in student government or club activities are encouraged to contact the ASSSC or Student Services.

## TESTING

The Testing Office provides a comprehensive program of services for students, faculty and staff. Tests of Aptitude, Academic Achievement, Reading Proficiency and Study Habits, Vocational Interests and Temperament/Personality are available to students to assist them in making educational, vocational and personal decisions. A program of "Credit by Examination" is also administered by this office, enabling students to obtain academic credit for prior college-level training either formal or informal, and to challenge some established college courses under certain circumstances. Information concerning all national testing programs such as Graduate Record Examinations, Medical College Admission Tests and National Teacher Examinations is available. Assistance with test selection, test construction and the analysis and improvement of evaluative techniques is provided on request to faculty, staff and students.

## STUDENT CONDUCT AND RESPONSIBILITY

The College assumes that students are mature individuals who have a serious academic purpose in attending college and that they will conduct themselves individually and in groups in an appropriate manner. Departures from appropriate conduct can result in sanctions from oral reprimands to expulsion. Actions warranting such measures include violation of Title 5 of the California Administrative Code, regulations of the California State Colleges, Stanislaus State College, or public law. The College and State regulations, and also procedures used in case of violation can be obtained in L-102.

## STUDENT GOVERNMENT

The Associated Students (ASSSC) is the elected government of the students of SSC 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.

## ALUMNI

The SSC Alumni Association is a young but increasingly dynamic one. The Association is organized to develop a margin of excellence within Stanislaus State College. Inquiries concerning the Alumni Association or individual alumni should be directed to the Student Services Office.

## GENERAL REQUIREMENTS FOR DEGREES

The College grants the Bachelor of Arts degree and the Master of Arts degree.

Election of Regulations. A matriculated student who has been in continuous enrollment pursuing the same objective may elect to meet the graduation requirements in effect either at the time of his first entering a degree program at a California community or state college, 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 full quarters remain to complete requirements for his degree. In any case a student should not apply later than the date indicated in the Academic Calendar.
An evaluation for graduation eligibility will be completed for a graduation candidate no later than the final registration date of the quarter in which he plans to graduate.

Faculty Approval. After approval of the major adviser and the department concerned, a favorable vote of the faculty is required before the College may award a degree.

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

## REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE

To qualify for a Bachelor of Arts degree a student must satisfy the specific requirements in the following areas:

## UNITS

A minimum 186 quarter units is required. At least 60 units must be in courses recognized for upper division credit.

## RESIDENCE

A student must complete a minimum of 36 quarter units at the College. At least 18 of these 36 units must be completed among the last 30 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.

## 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

$\mathrm{A}_{5}$ General Education program of courses and units, distributed as indicated below, is required. This program has been developed by the faculty tot provide breadth and depth of education through a variety of intellectual and créative experiences outside a student's major. This program will stress the interrelatedness of the major fields of knowledge and will form the foundation for specializations. Courses which are taken to fulfill General Education requirements will not also be counted toward fullfillment of major requirements. The College accepts certification of general education-breadth requirements by another accredited institution according to regulations of the California Administrative Code.

## Natural Scieqnces

Three courses required, including at least one from each of the following groups and at least bne laboratory course:

1. BIOL 101. Principles of Biology, 5 units

ZOOL 102. Pripciples of Zoology, 5 units
BOTY 103. Principles of Botany, 5 units
BIOL 263. Conservation of Natural Resources, 3 units
ENTO 300. Principles of Entomology, 5 units
BIOLL 332. Genetics, 3 units ( 4 units with lab)
BIOL 381. Evolution, 3 units
2. CHEM 100. Fundamentals of Chemistry, 4 units

CHEM 101. Principles of Chemistry I, 5 units
CHEM 102. Principles of Chemistry II, 5 units
PHYS 100. Introduction to Natural Sciences, 5 units
PHYS 101. Mechanics and Heat, 5 units
PHYS 102. Electricity and Optics, 5 units
ASTR 200. Déscriptive Astronomy, 4 units ( 5 units with lab)
GEOL 200. Principles of Geology I, 4 units
GEOL 201. Principles of Geology II, 4 units

## Secial sciences

1. One of the following courses covering United States history: ${ }^{\bullet}$

HIST 103. Western Civilization III, 4 units
HIST 362. Ante-Bellum America, 4 units
HIST 363. America After Civil War, 4 units
HIST 364. Contemporary America, 4 units
2. One course covering United States Constitution and California State and Local Government: * $\dagger$
PSCI 202. American Government, 4 units

[^3]
## Goneral Requirements for Degroes

3. Two courses from one of the following groups:
a. ANTH 205. Introduction to Human Origins, 4 units

ANTH 206. Introduction to Cultural Anthropology, 4 units
ANTH 207. Primitive Social Systems, 4 units
ANTH 208. Introduction to Physical Anthropology, 4 units
b. ECON 250. Principles of Economics I, 4 units

ECON 251. Principles of Economics II, 4 units
ECON 311. Economic History of United States, 4 units
c. GEOG 201. Principles of Physical Geography, 4 units

GEOG 202. Principles of Cultural Geography, 4 units
GEOG 240. World Regional Geography I, 4 units
GEOG 241. World Regional Geography II, 4 units
d. HIST 101. Western Civilization I, 4 units

HIST 102. Western Civilization II, 4 units
HIST 361. Colonial America, 4 units
e. PSCI 222. Modern Isms, 4 units

PSCI 331. International Relations, 4 units
f. SOCL 101. Introduction to Sociology, 4 units

SOCL 102. Contempiorary Sociology, 4 units
SOCL 224. Social Problems in the United States, 4 units
4. One course in general psychology:

PSYC 201. Introduction to Psychology, 4 units

## Humanitios

One course from each of the following groups:

1. ENGL 201. Introduction to Literature I, 4 units

ENGL 202. Introduction to Literature II, 4 units
ENGL 215. Perspectivées in Literature, 4 units
PHIL 101. Classics of Philosophy I; 4 units
PHIL 102. Classics of Philosophy II, 4 units
PHIL 103. Classics of Philosophy III, 4 units
2. ART 100. Introduction to Art, 4 units

ART 101. Anatomical Drawing, 4 units
ART 102. Pictorial Perspective, 4 units
ART 340. Art History I; 4 units
ART 341. Art History II, 4 units
ART 342. Art History III, 4 units
DRAM 200. Expression for the Performing Artist, 4 units
DRAM 220. Introduction to Theatre, 4 units
DRAM 230. Theatre Workshop I, 2 units
DRAM 421. History of the Theatre 1,4 units
DRAM 422. History of the Theatre II, 4 units
MUS 100. Introduction to Music, 4 units
MUS 241. Chorus, 1 unit*
MUS 242. Choral Ensemble, 1 unit *
MUS 243. Instrumental Ensemble, 1 unit *
MUS 244. Concert Band, 1 unit *

## masic Subjects

1. The following sequence in English composition courses:

ENGL 100. Freshman Composition, 4 unit's
ENGL 200. Sophomore Composition, 4 units
2. One basic course in oral expression: $\dagger$

SPCH 200. Speech Communication, 4 units

[^4]
## General Requirements for Degrees

3. One logic, mathematics or statistics course from the following:

PHIL 110. Deductive Logic, 4 units
PHIL 111. Inductive Logic, 4 units
MATH 100. Math for Liberal Arts Students, 5 units
MATH 102. Mathematics in Human Affairs, 4 units
MATH 105. Intermediate Algebra; 4 units
MATH 110. College Algebra and Trigonometry, 4 units
MATH 150. Finite Mathematics, 4 units .
MATH 160. Statistics, 4 units
MATH 200. Introduction to Compurers, 4 units

## Addifional Courses

1. One health course $\ddagger$

HLTH 101. Healthful Living, 2 units
2. Three quarters (two semesters) of physical education activity courses: $\ddagger$

PHED 101. Fitness, $1 / 2$ unit
PHED 102. Lifetime Activities, $1 / 2$ unit
PHED 103. Team Activities, $1 / 2$ unit
3. Additional courses are required to total a minimum of 70 quarter ( 47 semester) units in General Education. To complete the General Education requirement, students may choose any undergraduate course except upper division courses having a prerequisite, outside of their major field, and not exceeeding two cotrses in a discipline.

## MAJOR

The major consists of a pattern of upper division courses which are prescribed by the department or school concerned, are exclusive of General Education requirements, and must be preceded by specified prerequisites in the major field of study and in supporting fields. Required courses in a major will total not less than 36 upper division quarter units in that discipline.
The College offers programs leading to the Bachelor of Arts degree with a major in the following areas:

| Anthropology | French | Psychology |
| :--- | :--- | :--- |
| Art | History | Sociology |
| Biological Sciences | Mathematics | Social Sciences |
| Business Administration | Music | Spanish |
| Chemistry | Physical Education | Special Major |
| Drama | Physical Sciences | Speech |
| Economics | Physics |  |
| English | Political Science |  |

Note: Students seeking teaching credentials are advised to select an academic matter major. (See Department of Education.)

[^5]
## General Requirements for Degrees

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

The purpose of the Special Major is to provide-for exceptional cases of individual students only-an opportunity for a specially designed course of study leading to a degree when legitimate academic and professional aims are not adequately accommodated by standard degree majors. Such a provision is not intended to bypass normal graduation requirements or substitute for standard degrees normally found among existing programs in the California State Colleges.

Permission by the Vice President for Academic Affairs to pursue a Special Major is required in all cases. The student must have at least 45 quarter units remaining to complete minimum degree requirements for a bachelor's degree at Stanislaus State College before permission may be granted. A student interested in a Special Major degree should contact his adviser for additional information.

## MINOR

Completion of a minor is a requirement for a Bachelor of Arts degree when required by the department of the major. A minor is a pattern of prescribed course work consisting of a minimum of 12 upper division quarter units and a minimum of 22 quarter units in courses acceptable to the major adviser and the departments 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 by a student.

A minor for the Bachelor of Arts degree, if required, may be selected from the listing below:

| Anthropology | English | Physical Sciences |
| :--- | :--- | :--- |
| Art | French | Physics |
| Biological Sciences | History | Political Science |
| Business Administration | Mathematics | Psychology |
| Chemistry | Music | Sociology |
| Drama | Philosophy | Spanish |
| Economics | Physical Education | 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 Bachelor of Arts degree.

## All COLLEGE REGULATIONS

Compliance with all regulations prescribed by the College is a requirement for graduation with a Bachelor of Arts degree.

## REQUIREMENTS FOR AN ADDITIONAL baccalaureate degree

To qualify for an additional baccalaureate degree at the College a student must:
(1) Complete a minimum of 36 quarter units in residence at the College after requirements for his last degree have been fulfilled; at least 18 of these units must be in the subject field of the student's current major.
(2) Comply with all graduation requirements of the College including the General Education requirement 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 State College 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.

## REQUIREMENTS FOR THE MASTER OF ARTS DEGREE *

## ADVANCEMENT TO CLASSIFIED GRADUATE STANDING

In addition to obtaining admission to the College through the Admissions and Records Office a graduate student who expects to have his course work counted toward a master's degree must formally apply to the Office of the Vice President for Academic Affairs for admission to classified graduate standing in a specific master's degree program offered by the College.
Students must comply with departmental requirements relating to submission of scores from Graduate Record Examinations. Departments have the right to require additional written or oral comprehensive examinations before admitting a student to classified graduate standing.

A student may be admitted to classified graduate standing provided he has 1) an overall college grade point average of 3.0 (B) or a superior score on the Graduate Record Aptitude Examination, and the approval of the department chairman; or 2) a 3.0 (B) grade point average in his major or superior score on the Graduate Record Subject Examination, and the recommendation of his department chairman and the approval of the Vice President for Academic Affairs, or 3) academic ability to succeed in a graduate program as evidenced by achievement in a pro-

[^6]
## General Requirements for Degreos

gram of course work at the College which has been approved by a faculty graduate adviser.

Program requirements for the master's degree presuppose substantial undergraduate preparation. Students lacking in such preparation may find it necessary to exceed minimal unit requirements for the degree.

Not more than 15 quarter ( 10 semester) units of course work in unclassified graduate standing may be applied toward unit credit in a master's degree in the College, of which no more than 9 quarter ( 6 semester) units may be transfer units.

## ADVANCEMENT TO MASTER'S DEGREE CANDIDACY

After admission to classified graduate standing a student may begin study toward Master's Degree Candidacy.

To be advanced to candidacy a student is required to complete all applicable course work with at least a 3.0 (B) grade point average and secure recommendatiton to candidacy by a departmental committee. After advancement to candidacy a student must then complete a thesis, project, or comprehensive examination which is satisfactory to his departmental committee and approved by the Vice President for Academic Affairs.

## PROGRAM REQUIREMENTS

A program of studies for a master's degree is specified within an approved field of concentration for each student. Requirements for the degree include a minimum of 45 postbaccalaureate units with a 3.0 (B) grade point average to be completed within a seven-year period just preceding the granting of the degree. Outdated credits must be replaced with credits earned within a seven year period. No course with a grade below C is applicable towards a master's degree. When a course is repeated, the two grades shall be averaged to determine the grade point average applicable toward the degree.

Only graduate courses ( 500 series) and such upper division courses as are recommended by the faculty in the departments and approved by the Vice President for Academic Affairs are acceptable in the unit requirements. Only in exceptional cases and with departmental recommendation and approval of the Vice President for Academic Affairs may professional courses ( 600 series) be applied toward unit requirements in a master's degree program.
The program must include the following:

1. At least 36 units completed in residence at the College.
2. A minimum of 23 units in courses completed after admission to classified graduate standing.
3. At least $221 / 2$ units in courses in the 500 series.
4. A minimum of 27 units completed in the major field.
5. The successful completion of a thesis, project, or comprehensive examination.

A program of studies shall not include more than 9 quarter ( 6 semester) units of credit in student teaching or extension courses, and no more than 9 units of thesis or project credit.
After a program of studies has been recommended by a student's adviser and approved by the department faculty and the Vice President for Academic Affairs, it may be changed with recommendation of department faculty and approval of the Vice President for Academic Affairs.

In order to receive a master's degree a student must have achieved grasp of his field of study and must have demonstrated competence in independent study and research to the satisfaction of his graduate committee.
The student must comply with department time requirements as well as with all other requirements for satisfactory completion of the thesis or project.

## THESIS, PROJECT, OR COMPREHENSIVE EXAMINATION

Requirements for the master's degree include the successful completion of a thesis or project, or at departmental option, a comprehensive examination.

To be eligible to enroll for thesis or project credit, a student must have (1) been advanced to candidacy for the degree, (2) maintained at least a 3.0 (B) grade point average in his program of studies, (3) selected a thesis or project committee consisting of a chairman and at least two other members designated by the department concerned, and (4) filed with the Vice President for Academic Affairs a prospectus for a thesis or project which has been approved by the department.

The final approved copy of the thesis must be submitted to the Office of the Vice President for Academic Affairs not less than 30 days prior to the end of the quarter that one plans to graduate.
The comprehensive examination may be either written or oral or both, at the discretion of the department. The department will select an examination committee consisting of a chairman and at least two other members who will be responsible for determining the type of examination, its content, the administration of it, and certifying the results to the Vice President for Academic Affairs. The comprehensive examination carries no unit credit.


A modern, comfortable and vary colorful Student Union offers a friendly and restful atmosphere for Stanislaus State students.


A Science Building is under construction and is expected to be ready for occupancy in the fall of 1972.


Stanislaus State College participates In six intercolleglate sports as an "indopendont" school.

## ANNOUNCEMENT OF COURSES

COURSE NUMBERING SYSTEM
DEPARTMENTAL REQUIREMENTS
COURSE DESCRIPTIONS

## COURSE NUMBERING SYSTEM

## 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. Incluḍes 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:

| 2, 592 and 692 | Workshops |
| :---: | :---: |
| 494, 594 and 694 | Field Work |
| 495 and 595 | Selected Topics |
| 496 | Senior Seminars |
| 498, 598 and 698 | Individual Study |
| 499 and 599 | Thesis |

## 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 quarter units for the course. Courses offered for varying units are indicated as (2-4), (1-6), etc.
2. A notation such as (Formerly 450), at the end of a course description indicates the course was previously numbered 450.
3. Courses graded "Pass" or "Fail" are so indicated in the course description.

## Anthropology

Alfred W. Bowers, Ph.D., Professor, Chairman Joel Canby, Ph.D., Professor<br>Melvin H. Aamodt, Ph.D., Associate Professor<br>Thomas E. Durbin, Ph.D., Assistant Professor Ira L. Fogel, M.A., Assistant Professor

The Department of Anthropology-Sociology 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 area and national specializations.
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 40 upper division units as approved by the major adviser.
4. Completion of a minor is not required.

## DEGRE MAJOR IN ANTHROPOLOGY

Prerequisites to the Major (any combination of 12 units)
ANTH 205 Introduction to Human Origins, 4 units
ANTH 206 Introduction to Cultural Anthropology, 4 units
ANTH 207 Primitive Social Systems, 4 units
ANTH 208 Introduction to Physical Anthropology, 4 units SOCL 201 Introduction to Sociology, 4 units

## The Major

A minimum of 40 upper division units distributed as follows: Non-Western Cultures, The American Indian 8
Theoretical Anthropology and Special Fields ___ 12
Archeology, Physical Anthropology _ 8
Additional upper division units in anthropology ___ 12
Total $\longrightarrow$

DEGREE MINOR IN ANTHROPOLOEY
Twenty-four units approved by the minor adviser are required, including at least 16 units in upper division courses.

## Anthropology

## TEACHING CREDENTIALS

Major in social sciences for elementary and secondary credentials, see Social Sciences.

Minor in anthropology for elementary and secondary credentials must complete the following *

1. Complete requirements for degree minor in anthropology; plus additional courses in the field of the minor to total a minimum of 30 units, as recommended by the minor adviser and approved by the credential adviser.
2. Secondary credential candidate must receive approval of the minor adviser as to subject matter comperence.

## COURSE DESCRIPTIONS

Lower Division
ANTH 205. Introduction to Human Origins (4)
Studies in the history of human biological and cultural development, fossil man, and racial distinctions. (Formerly 211)

## ANTH 206. Introduction to Cultural Anthropology ( 1 )

Meaning of culture, its diversity and degrees of elaboration among different peoples; organization and functioning of cultures. This course or its equivalent is a prerequisite of 300 and 400 level courses. (Formerly 201)

## ANTH 207. Primitive Social Systems ( 4 )

An introduction to the study of primitive social systems. Training in methods employed in studying the little societies. Detailed investigations into the patterns of social integration of about 20 societies. Prerequisite: ANTH 206.

ANTH 208. Introduction to Physical Anthropology (4)
Human biology and physical anthropology; the relation of man and the animals; anthropometry, the criteria of race, current racial theories.

## Upper Division NON-WESTERN CULTURES

## ANTH 305. Non-Western Cultures (4)

A consideration in detail of several diverse cultures drawn from representative Old World and Oceanic areas. (Formerly 300) Prerequisite: ANTH 206 or 207.

ANTH 306. Peoples of East Asia and Oceania (4)
Investigation of the rise of civilizations of East Asia and the settlement of the islands of the Pacific. Prerequisite: ANTH 305.

## ANTH 307. Peoples of Africa (4)

Historical and cultural backgrounds of traditional and contemporary sociecies of Africa south of the Sahara, Western and Asian influences, problems of social, economic, and political development. Prerequisite: ANTH 305.

## ANTH 308. African Political and Social Systems (4)

Study of traditional African political and social organization and changes during the colonial period. The influence of the traditional political and social systems on one African nation examined in detail. Prerequisite: ANTH 307 or consent of instructor.

## ANTH 309. Native African Art and Literature (4)

A survey of the art, music and literature of Africa. Consideration given to the composition of the art forms as well as to their social functions. Several cultures

[^7]studied in detail to show the interrelationship of the various art forms with the total culture. Prerequisite: ANTH 307 or consent of instructor.

## THE AMERICAN INDIAN

## ANTH 335. The American Indian (4)

A general survey course designed to acquaint students with the prehistoric and historic cultures of the Indians of North America and South America. 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 which developed in the New World. (Formerly 330) Prerequisite: ANTH 206 or ANTH 207.

## ANTH 336. Indians of California and Western North America (4)

Special emphasis is given to the Indians of California and adjacent areas with special reference to their historical and cultural backgrounds. (Formerly 331) Prerequisite: ANTH 335.

## theoretical anthropology and special fields

## ANTH 401. Culture and Personality (4)

Individual personality in relation to cultural background. Socialization in nonliterate and other non-European societies. National character studies, basic personality structure, and cross-cultural studies of abnormality. (Formerly 332) Prerequisite: Two upper division anthropology courses.

## ANTH 402. Ecological Anthropology (4)

Survey of theories, methods, and applications of the ecological perspective to cultural and physical attributes of human popalations. Prerequisites: 8 units of upper division credit in anthropology or consent of instructor.

## ANTH 411. Community Studies (4)

Theory and methods in the study of primitive and contemporary communities in their cultural context. Prerequisite: ANTH 206 and one upper division course in cultural anthropology or consent of instructor.

## ANTH 412. Contemporary Civilizations 1

The application of anthropological concepts and methods to the study of contemporary North and Latin American Indian societies, their place in Modern American Life and the character of contemporary Indian communities. Prerequisites: 12 units of upper division courses in Non-Western cultures or The American Indian.

## ANTH 413. Contemporary Civilizations II (d)

An anthropological analysis of special problems in contemporary civilizations of the Old World, especially southern Asia and Africa. Comparison of cultural changes in America with other contemporary societies. Prerequisites: 12 units of upper division courses in Non-Western cultures or the American Indian. Planned primarily for seniors.

## ANTH 421. Cultural Change (4)

Cultural stability and change; with reference to geographical base, innovation, invention, and technology. Prerequisite: ANTH 206 and one upper division course in cultural anthropology or consent of instructor.

## ANTH 422. Folklore (4)

A survey of the oral literature of non-literate peoples. The content, style and aesthetics of the literature and the social functions of the literature will be discussed. Prerequisites: ANTH 206 and one upper division course in cultural anthropology or consent of instructor.

## Anthropology

## ANTH 495. Selected Topics in Anthropology (Topic to be specified in the Class Schedule) (1-5)

Topics vary each term, thus may be repeated for credir. Prerequisite: Consent of instructor.

ANTH 496. Senior Seminar (4)
Seminar for seniors in anthropology. Review and discussion of selected topics in anthropology. Each student will be expected to report on an individual project. (Formerly 491) Prerequisite: Consent of instructor.

## ANTH 498. Individual Study (1-5)

For student capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## ARCHEOLOGY

## ANTH 325. Methods and Theories in Archeology (4)

Field techniques and procedures in archeology. Dating and classification of archeological materials. Investigations into the theories of human prehistory. (Formerly 323) Prerequisite: ANTH 205.

## ANTH 326. Old World Archeology (4)

Survey of major developments in Old World prehistory, methods of archeological analysis, and geological and biological backgrounds of paleolithic man. (Formerly 301) Prerequisite: ANTH 325.

## ANYH 327. New World Archeology ( $\boldsymbol{\alpha}$ )

Early man in North America and development of prehistoric cultures in the New World north of the Mexican high culture area. Prerequisite: ANTH 325.

## ANTH 355. Field Researches in Archeological Methods <br> (4)

Techniques of prospecting and scientific excavations, with special emphasis on methods of collection, excavating, and recording of specimens and data under carefully controlled field conditions. Student should have significant understanding of archeology. Prerequisite: ANTH 325 recommended.

## PHYSICAL ANTHROPOLOGY

ANTH 345. Human Evolution and Fossil Man (4)
The evolutionary processes leading to the development of man and the manlike forms from primate ancestors; fossil men and the origin of modern man. Prerequisite: ANTH 208

## ANTH 346. Primate Evolution and Behavior (4)

Emphasis on the evolution of the primates and studies of their behavior with special reference to the application of primate studies to the understanding of human biology and culture. Prerequisite: ANTH 208

## ANTH 347. Living Races of Man (4)

The processes of racial differentiation in man, and the criteria of significant differences among human stocks; influence of culture in race formation, analysis of blood groups, race mixture, constitution, growth, and nutrition. Prerequisite: ANTH 208

## Art

Martin L. Camarata, M.A., Associate Professor, Chairman<br>Robert H. Colescott, M.A., Professor<br>Ralf Parton, M.A., Associate Professor<br>James Piskoti, M.F.A., Assistant Professor<br>James M. Steven, M.F.A., Assistant Professor<br>Garner H. Tullis, M.A., Assistant Professor

The Department of Art offers the degree, Bachelor of Arts. Studio courses are offered in Drawing, Painting, Sculpture, and Printmaking. History and Criticism courses as well as General Offerings are available.

The art curriculum prepares students for vatious professions, for creative potential in order to prepare and encourage him to make independent critical judgments.

The art curriculum prepares students for various professions, for study at the graduate level, and for teaching; and provides for the aesthetic and cultural development of the general student in the liberal arts.

## REQUIREMENTS FOR BACHELOR OF ARTS

Art 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 36 upper division units, which includes a program of study in fields of specialization as developed in consultation with the major adviser.
4. Completion of a minor is not required.

## GENERAL REQUIREMENTS FOR ART MAJOR

1. No particular pattern of high school art courses is required for admission to the art program, but candidates for a major in art are expected to have special interest and ability in art as revealed by superior grades in art courses.
2. A freshman or lower division transfer will be evaluated for acceptance as a major in art during the final quarter of the sophomore year by submitting a portfolio for faculty approval. The same applies to continuing sophomores who entered the department as freshmen.
3. Students entering as transfers at the upper division level will be evaluated, via portfolio, prior to admittance as a major of art. The department expects that the work of transfer students be of such quality to meet the standards of the Department of Art, and may requaire students to make up deficiencies in lower division course
work. He will then be required to resubmit a portfolio for faculty approval upon completion of such deficiencies. When the department is notified by the Admissions and Records Office of a student being accepted for admission with intent to become an art major, he will be contacted prior to advisement regarding the submittance of a portfolio.
The portfolio should include examples from all classes attended at previously attended institutions, and work done on the student's ofwn initiative; it should show no less than 20 nor more than 35 examples. If work is of a scale, weight, or material which is not easily transported, slides may be submitted; however, at least one-third of the portfolio should be actual work. All actual work should be suitably prepared for presentation, this includes identification, matting and when necessary any protective covering necessary to insure the safety of the work. Slides should be appropriately labeled and should include dimensions.
The College assumes no responsibility for any damage ensued in transfer or handling, although every reasonable precaution will be exercised for its safekeeping.
4. The Department of Art reserves the right to retain any student art works.
5. All seniors will submit a minimum of ten slides for the department's file.
6. Alil students (major or minor) engaged in studio courses are required to work six hours per course per week outside of the scheduled studio time.
7. Aill art majors are required during their senior year to submit a representative portfolio of their art work to a faculty jury. Seniors must exhibit in their work an exploration of all media offered in the program. Personal, conceptual, aesthetic concerns as evidenced in the work will be judged on a qualitative basis by a faculty committee of the Department of Art. Successful participation in an exhibition and faculty approval of the portfolio is a requirement for the department's recommendation for graduation as a major in ạrt.
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 senior who rests on his technical achievements or skills attained in required art courses will not be automatically graduated, although all required units for the major have been fulfilied.
DEGREE MAJOR IN ART
Foundafion Program Units
All majors must take all foundation art courses in sequence. ABT 100. Drawing I ..... 4
ART 101. Drawing II ..... 4
ART 102. Drawing III ..... 4
ART 110. Foundations of Two-Dimensional Composition ..... 4
ART 120. Foundations of Color ..... 4
ART 130. Foundations of Three-Dimensional Composition ..... 4
ART 210. Relief Printing ..... 4
ART 220. Painting I ..... 4
ART 230. Modeling ..... 436
Upper Division Requirrements
ART 300. Drấwing IV ..... 4
ART 301. Drawing ..... 4
ART 302. Drawing VI ..... 4
ART 311. Intaglio ..... 4
ART 312. Lithography ..... 4
ART 321. Painting II ..... 4
ART 323. Painting III ..... 4
ART 331. Metal Sculpture ..... 4
ART 332. Carving ..... 4
Total ..... 72All majors must take their required art courses in an order which does notviolate the prerequisite.
DEGREE MANOR IN ART
(48 units as listed below, to include 12 units in Airt History)
Lower Division
ART 100. Drawing $I_{5}$
ART 101. Drawing II
ART 102. Dtawing IIIART 110. Foundations of Two-Dimensional Composition,
ART 120. Foundations of Color
ART 130. Foundations of Three-Dimensional Composition,
ART 210. Relief Printing,
ART 220. Painting I,
ART 230. Modeling,
Uppor Division
Art History, 12 units

## TEACHING CREDENTIALS

Majors in art seeking elementary and secondary credentials must fulfil the following requirements:

1. Degree major in art.
2. ART 452, Curriculum and Instruction in Art. (Substitute for EDUC 449, for secondary credential only)
3. Secondary credential candidates must complete a minimum of 9 units in studio courses in Art as postbaccalaureate work and receive approval of the Department of Art as to subject matter competence.
4. Complete requirements for credential as presented by the Education Department.

## COURSE DESCRIPTION <br> DRAWING AND FOUNDATIONS

## Lower Division

ART 100. Drawing I (4)
Emphasis on introduction to drawing media and process as visual language. Prerequisite: Consent of instructor.

## ART 101. Drawing II (4)

Emphasis is on structure and proportion as interdependent elements of the visual image. Prerequisite: ART 100

## ART 102. Drawing III (4)

Emphasis on space and scale as interdependent qualities of visual composition. Prerequisite: ART 101

## ART 110. Foúndations of Two-Dimensional Composition (4)

Studio exploration of plastic elements as a basis for building visual language for two-dimensional ćomposition. Prerequisite: Consent of instructor.

## ART 120. Foundations of Color' (4)

Studio investigation of color interaction. Prérequisite: ART 110
ART 130. Foundations of Three-Dimensional Composition (4)
Studio exploration of fundamental elements of form as basis for building visual language for three-dimensional composition. Prerequisite: ART 110

## ART 300. Drawing IV (4)

Emphasis on objects as compositional elements. Prerequisite: ART 102
ART 301. Drawing $V$ (4)
Emphasis on figure as a compositional element. Prerequisite: ART 300

## ART 302. Drawing VI (4)

Elaboration of problems explored in Pictorial Systems. Prerequisite: All required drawing courses.

## ART 405. Advanced Drawing

Advanced problems in drawing with emphasis upon expression. Prerequisite: All réquired drawing courses, or signature of adviser. May be repeated for a total of 12 units.

## ART 210. Relief Printing

printmaking
Lower Division
Fundamental theories and practices involved in the process of relief printmaking. Emphásis on materials, techniques, tools, and craftsmanship. (Formerly 362) Prerequisite: Completion of all freshman foundations courses, or consent of instructor.

## Upper Division

## ART 3it: Intaglio Printing (4)

Techniques of intaglio printmaking; emphasis on techniques and their relation to the graphic image. Prerequisite: Completion of all foundations courses, or consent of instructor.

## ART 312. Lithography (4)

Lithographic printmaking; emphasis on techniques and their relationship to the graphic image. Utilization of the techniques of stone and metal printing. Prerequisite: Completion of all foundations courses or consent of instructor.

## ART 415. Advanced Prinfmaking (4)

Advanced problems and new techniques in printmaking. Students may concentrate or work in a variety of printing processes. May be repeated for a total of 16 units. Prerequisites: All required printmaking courses, or consent of instructor.

## PAINTING <br> Lower Division

## ART 220. Painting I (4)

Emphasis on media and process with a concentration in watercolor and acrylic. Prerequisite: Completion of all freshman foundations courses.

## Uppor Division

## ART 321. Painting II (4)

Emphasis on objective painting. Concentration in oils. Prerequisite: Completion of all foundations courses, or consent of instructor.

## ART 323. Painting III (4)

Emphasis on form in space with a variety of paint media. Prerequisite: ART 321

## ART 395. Art Studio in Mexico (1-9) Summer Session Only

Various studio experiences will be offered through painting, drawing, sculpture, etc., directly from nature utilizing the cultural and physical environment of Mexico. Beginning and advanced techniques will be offered. Prerequisite: A good background in drawing would be beneficial. A maximum of 9 units may apply toward the electives in each art specialty.

## ART 425. Advanced Painting (4)

Advanced problems and new techniques in painting. Students may concentrate or work in a variety of painting media. May be repeated for a total of 16 units. Prerequisite: All required painting courses, or consent of instructor.

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

Development of a selected branch in art. Topics vary each term. May be repeated for credit. Prerequisite: Consent of instructor.

## ART 595. Selected Topics in Art (Topies to be specified in Cfass Schedule) (1-5)

Development of a selected branch in art. Topics vary each term. May be repeated for credit. Prerequisite: Consent of instructor.

## Postbaccalmureafe

## ART 695. Art Studio In Mexico (1-9) Summer Session Only

Various studio experiences will be offered through painting, drawing, sculpture, etc., directly from nature utilizing the cultural and physical environment of Mexico. Beginning and advanced techniques will be offered. Prerequisite: A bachelor's degree is required. A good background in drawing would be beneficial. A maximum of 9 units may apply toward the electives in each art specialty.

## SCULPTURE

Lower Division

## ART 230. Modeling (4)

Fundamental theories and practices involved in modeling, emphasis on materials, techniques, tools, and craftsmanship.

Prerequisite: Completion of all freshman foundations courses, or consent of instructor.

## ART 331. Metal Sculpfure (4)

The additive process as a sculptural discipline with emphasis on the direct use of metals as medium for personal expression. Introduction to various methods of welding. May be repeated for a total of 8 units. Prerequisite: Completion of all foundations courses or consent of instructor.

## ART 332. Carving (4)

The subtractive process as a sculptural discipline; emphasis on the human form in stone and wood. Further development in the use of wood carving and stone cutting tools. Prerequisite: Completion of all foundations courses or consent of instructor.

## ART 435. Advanced Sculpture (4)

Advanced problems and new techniques in sculpture. Students may concentrate or work in a variety of materials. May be repeated for a total of 16 units. Prerequisites: All required sculpture courses, or consent of instructor.

## HISTORY AND CRITICISM

## Upper Division

## ART 340. Art History I (4)

Analysis and interpretation of the visual arts and their historical development through painting. (Formerly 325)

## ART 341. Art History II (4)

Analysis and interpretation of the visual arts and their historical development through printmaking. (Formerly 326)

## ART 342. Art History III (4)

Analysis and interpretation of the visual arts and their historical development through sculpture. (Formerly 431)

## ART 343. Ancient Greek Art (4)

Analysis of the development of style in the visual arts in Greece from Mycenal through the Hellenistic Age.

## ART 344. Renaissance Art (4)

Analysis of style developments in the visual arts in thirteenth, fourteenth, and fifteenth century Italy and Northern Europe.

## ART 345. Contemporary Art (4)

Analysis of development of style trends in the visual arts since 1945.

## ART 346. Structure and Meaning in the Visual Arts (4)

The arts in their formal structure; emphasis on analysis of styles and expression.

## ART 440. African Art (4)

An analysis of the arts of black Africa.

## ART 447. Art of the Americas (4)

Significant trends, schools, and styles of pre-Colombian art.

## ART 496. Senior Seminar (4)

Intensified study of the nature and problems confronting the contemporary American artist. Preparation of senior portfolio and exhibition. Prerequisite: Senior art major, or consent of instructor.

## ART 498. Individual Study (3-4)

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 whom the student wishes to work under.

## GRADUATE

## ART 598. Individual Study (3-5)

For students with a baccalaureate 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 whom the student wishes to work under.

## GENERAL OFFERINGS

(These courses will not apply towards the art major or minor)

## ART 320. Arts in Contemporary Society (4) Summer Session Only

Character and function of contemporary art in today's society as it relates to individual creativity; critical appreciation of recent trends in visual arts.

## ART 350. Ceramics (4)

Basic and advanced methods of constructing handbuilt ceramic forms. Emphasis on designing, decorating, glazing and firing procedures. Open to the general student. May be repeated for a total of 12 units. Prerequisite: One course selected from ART 100, 101, 102 or consent of instructor.

## ART 390. Two Dimensional Design (3-4) Summer Session Only

Investigation of design principles as they relate to painting and drawing. Concentration on theories on line, shape, color. Studio experiences using a variety of media.

ART 391. Graphic Design (3-4) Summer Session Only
Investigation of design principles as they relate to the handprinting process. Concentration on printing as an element of design. Linoleum and woodblock studio exercises.

## ART 396. The World of Visual Arts (1-9) Summer Session Only

A survey of the arts and crafts of various countries through visitations of museums, galleries, university art studios, craft shops, archaeological sites, and architecture. May be repeated for a maximum of 9 units to apply toward the electives in each art specialty.

## ART EDUCATION

## ART 384. Art Experiences in Elementary School (4) Summer Session Only

A variety of two and three dimensional, visual non-verbal experiences as an integral need in the daily lives of children. Emphasis on creativity as a means toward a more valuable school curriculum.

## ART 452. Curriculum and Instruction in Art (4)

Contemporary trends in art education. Curriculum development, selection and organization of materials and procedures for the secondary school. Field observations. Prerequisite: Admission to student teaching and consent of credential adviser.

ART 486. Art Experiences for Exceptional Child (4) Summer Session Only
Various types of materials, activities, and programs suitable for the exceptional child to realize his creative potentials in the field of art.

## POSTBACCALAUREATE

## ART 696. The World of Visual Arts ( $1-9$ ) Summer Session Only

A survey of the arts and crafts of various countries through visitations of museums, galleries, university art studios, craft shops, archaeological sites, architecture. Prerequisite: A bachelor's degree is required. May be repeated for a maximum of 9 units to apply toward the electives in each art specialty.

# Biological Sciences 

Steve J. Grillos, Ph.D., Professor<br>Glenn A. Hackwell, Ph.D., Professor<br>James C. Hanson, Ph.D., Associate Professor<br>Bobby J. Neal, Ph.D., Assistant Professor<br>Judith A. Brown, M.S., Assistant Professor<br>Jay P. Christofferson, Ph.D., Assistant Professor<br>David M. Gotelli, Ph.D., Assistant Professor<br>Perpetuo S. Mayol, Ph.D., Assistant Professor<br>Walter Tordoff III, M.S., Assistant Professor

Thie Department of Biological Sciences offers programs of study in the biological sciences for students seeking the Bachelor of Arts, Biological Sciences. These courses provide breadth and background in the natural sciences for the general student. The major programs are designed to prepare students for graduate work, careers in the biological scierices, and teaching. The student majoring in 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.

## 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 37 upper division units, including course requirements as specified for the major.
4. Completion of a minor is not required.

DEGREE MAJOR IN BIOLOGICAL SCIENCES
Prerequisites to the Major
Required courses in major field:
BIOL 101. Principles of Biology, 5 units
ZOOL 102. Principles of Zoology, 5 units
BOTY 103. Principles of Botany, 5 units
Required courses in supporting fields:
CHEM 101, 102, 103. Principles of Chemistry I-III, 15 units Mathematics (MATH 160 recommended), 4 units
One of the following year sequences:

* PHYS 101, 102, 103. Mechanics and Heat; Electricity and Optics; Modern Physics, 15 units
* CHEM 321, 322, 323, 324, 325, 326. Organic Chemistry, 12 units.

[^8]
## Biological Sciences

The Major Units
BIOL 332. Genetics ..... 3
BIOL 351. Cellular and Molecular Biology ..... 3
BIOL 363. Ecology ..... 3
BIOL 364. Field Ecology ..... 2
BIOL 496. Seminar in Biology ..... 4
Course in botany (upper division) as approved by major adviser ..... 4
Course in physiology as approved by major adviser ..... 4
Courses in zoology (upper division) as approved by major adviser ..... 4
tCourses as approved by major adviser ..... 24
Total ..... 51
degre minor in giological sciences
(31 units, to include at least 16 units in upper division)
Lewor DivisionBIOL 101. Principles of Biology, 5 unitsZOOL 102. Principles of Zoology, 5 unitsBOTY 103. Principles of Botany, 5 units

## Upper Division

Courses as approved by minor adviser, 16 units

## TEACHING CREDENTIALS

$\ddagger$ Majors in biological sciences seeking elementary and secondary credentials must fulfill the following requirements:

1. Degree major in biological siciences.
2. Secondary credential candidates must complete 9 units in courses in biological sciences as postbaccalaureate work and receive approval of the Department of Biological Sciences as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## PREPARATION FOR GRADUATE STUDY

It is recommended that the student who intends to seek an advanced degree in graduate study select a minor in the physical sciences and complete at least 2 college level one-year sequence or equivalent in French or German.

## COURSE DESCRIPTIONS

siolocy

## Lower Division

EIOL 101. Principles of Biology (5)
Basic biological phenomena common to all living organisms. Cellular and molecular levels of organization, genetics and the mechanisms of heredity in organic evolution, and reproduction and development from the molecular to gross structural levels. (Lecture; 4 hours; laboratory, 3 hours) No prerequisites.

## BIOL 263. Conservation of Natural Resources <br> (3)

Broad aspects of natural resources conservation which includes the history of man in relation to land use, human populations in relation to resources, history of the conservation movement and present day conservation problems such as air and water pollution. (Lecture 3 hours) Prerequisite: None.

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# Blological Scionces 

EIOL 322. Oeneral and Cellular Physiology (5)
Physico-cheminical properties of protoplasm, permeability, metabolism and nuclearcytoplasthic interaction. (Lecture, 3 hours; laboratory, 6 hours) Prerequisite: One year college level biology or equivalent; organic chemistry is recommended.
SIOL 352: Genetics (3)
Mëchanisms of inheritance and relationships of hetedity to fundamental biological problems, as well as application to practical problems including those of human society. (Lecture, 3 hours) Prerequisite: One course in college level biology or equivalent.

## MOL 334: Genetics Laboratory (1)

Laboratory experiments to demonstrate mendelian principles, sex-linkage, sex deternination, gene interaction, and chromosome mapping. (Laboratory, 3 hours) Prerequisite: BIOL 332 or concurrent enrollment.

## HIOL 351. Cellular and Molocular Biology (3)

Basic concepts of cellular phenomena dealt with at the molecular level of organization. (Lećrure, 3 hours) Prerequisite: One year college level biology or equivalent; CHEM 101, 102, 103 are recommended.
mot 353. Principles of Microhiology
Structure, classification, physiology, distribution, and life histories of microorganism. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: BIOL 101 or BOTY 103, of equivalent.

## E1OL 363. Eeology (3)

Basic interrelationships of plants and animals within their physical and biological environments. (Lecture, 3 hours; field trips) Prèrequisite: Two quarters college level biology or equivalent.

## BIOL 364. Fiold Ecology (2)

Laboratory and field exercises with emphasis on the use of methods and instrumients emiployed in ecological studies. Data on both the physical and biotic aspects of the environment will be gathered and analyzed. Individual and group field problems will be undertaken. (Laboratory, 6 hours; field trips) Prerequisite: BIOL 363 or concurrent enrollment.

BOL 365. Aquatic Biology (4)
The biota of fresh water, with emphasis upon the ecology, identification, physiology and behavior of aquatic organisms. (Lecture, 2 hours; laboratory 6 hours; field trips) Prerequisite: Two quarters of college level biology or equivalent.

## MOL. 381. Evolution (3)

Basic concepts of evolutionary theory, including evidence and mechanisms that underlie and support the evolution of living things. (Lecture, 2 hours; discussion, 1 hour) Prerequisite: One quarter college level biology or equivalent; BIOL 332 is recommended.

## HOL 451. Histolegical end Cyrological Techniques (4)

Principles and practice of preparing tissues for microscopic study. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: Two years of college level biology or equivalent.

## BIOL 494. History and Philosophy of Biology (3)

Rise and development of biological theories and laws. (Lecture, 3 hours) Prerequisite: One year college level biology or equivalent.

## Biological Sciences

EHOL 493. Solected Topics in Biological Sciences (Topics to be specified in Class Schedule) (1-5)
Development of a selected branch of biological sciences.
Topics vary each term, thus may be repeated for credit. Prerequisite: Consent of instructor.

## HOL 496. Seminar in Biology (2),

Presentations and discussions of selëcted biological phenomena through study of biological literature. (Discussion, 2 hours) May be repeated for only a total of 4 required units. Prerequisite: Conseht of instructor.

## HOL 498. Individual Study (1-5)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of $\dot{9}$ únits. Prerequisite: Consent of instructor.

EIOL 598. Individual Study (1-5),
For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 9 units. Preréquisite: Consent of instructor.

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* sótany̌
Lơwer Division
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## nOTY 103. Principles of Eotany (5)

Basic botanical principles common to the plant kingdom. Principles of plant biology and the major types and groups of plants; physiology, anatomy, ecoblogy, classification, and evolution of plants. (Lecture, 4 hours; laboratory, 3 hours; field trips) Prerequisite: BIOL 101 or equivalent.

## Upper Division <br> EOTY 311. Morphology of Non-Vascular Plants (4)

Comparative study of structure, development, ecology, and evolutionary importance of algae, fungi, lichens, and bryophytes. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisite: BOTY 103 or equivalent.

## BOTY 312. Morphology of Vascular Plents (4)

Comparative study of structure, development, ecology, and evolutionary importance of club mosses, horsetails, ferns, and seed plants. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisite: BOTY 103 or equivalent.

## sOTY 315. Introductory Mycology (4)

Survey of fungi with emphasis on form, structure, heredity, development and identification. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisites: BOTY 103 and 311, or equivalent.
sOTY 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 103 or equivalent.
soty 410. Plant Anatomy (5),
Microscopic study of structire and development of plant tissues, with emphasis upon tissues of seed plants: (Lecture, 3 hours; laboratory, 6 hours) Prerequisites: BOTY 103 and 312, or equiyalent.

## soty 420. Plant Physiology (5)

Selected topics pertaining to metabolism, nutrition, and growth of plants. (Lecture, 3 hours; laboratory, 6 hours) Prerequisite: BOTY 103 or equivalent; organic chemistry is recommended.

## Biological Sciences

## sOTY 495. Selected Topics in Botany (Topies to he specified In Ciess Schedule) (1-5)

Development of a selected branch of botany. Topics vary each term, thus may be repeated for credit. Prerequisite: Two years of botany or consent of instructor.

## ENTOMOLOGY

Upper Division
ENTO 300. Principles of Entomology (5)
Classification, life history, structure, and basic physiology of insects. (Lecture, 3 hours; laboratory, 6 hours; field trips) Prerequisite: BIOL 101 or equivalent.

## ENTO 333. Medicul Entomology ( 4 )

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, 3 hours; laboratory, 3 hours) Prerequisite: ZOOL 102 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.

ENTO 422. Insect Physiolegy (4)
Consideration of nutrition, digestion, excretion, circulation, respiration, detoxification processes, and the nervous and hormonal systems of insects. (Lecture, 3 hours; laboratory, 3 hours) Prerequisite: Consent of instructor. Organic chemistry is recommended.

ENTO 495. Solected Topics in Entomology (Topic to be specifiod in the Class Schedule) (1-5)
Development of a selected branch of entomology. Topics vary each term, thus may be repeated for credit. Prerequisite: One quarter college level entomology or consent of instructor.

## zoolocy

Lower Dlviston
ZOOL 102. Principles of Zoology (5)
Introduction to basic zoological principles common to the animal kingdom. Principles of animal biology and an account of major types and groups of animals. Physiology, anatomy, ecology, classification and evolution of animals. (Lecture, 4 hours; laboratory, 3 hours; field trips) Prerequisite: BIOL 101 or equivalent.

## Upper Division

zOOL 312. Anatomy (5)
Gross morphology, anatomy, and histology of organ systems with special reference to human anatomy. (Lecture, 3 hours; laboratory, 6 hours) Prerequisites: ZOOL 102 or consent of instructor.

## zOOL 313. Vertebrafe Embryology (5)

Comparative study of microanatomy and development of several representative vertebrate forms. (Lecture 3 hours; laboratory, 6 hours) Prerequisite: ZOOL 102 or equivalent.

ZOOL 315. Comparative Anatomy of Vertehrates I (4)
Comparative study of microanatomy and gross morphology of organ systems in representative vertebrates. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: ZOOL 102 or equivalent.

## Biological Sciences

## ZOOL 316. Comparative Anatomy of Vertebrate II (4)

Continuation of ZOOL 315. Comparative study of microanatomy and gross morphology of organ systems in representative vertebrates. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: ZOOL 315.

## zOOA, 323. Physiology (4)

Principles of functional anatomy and physiology of organ systems with special reference to human physiology. (Lecture, 3 hours; laboratory, 3 hours) Prerequisites: ZOOL 102 or consent of instructor; ZOOL 312 recommended.

## 200L 423. Comparative Animal Physiology I (4)

Comparative study of physiology of organ systems among major animal groups, with special reference to osmotic balance, inorganic ions, feeding and digestion, and excretion. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: ZOOL 102 or equivalent. One full year of organic chemistry is recommended.

## ZOOL 424. Comparative Animal Physiology II (4)

Continuation of ZOOL 423. Comparative study of physiology of organ systems among major animal groups, with special reference to respiration, chemoreception, circulation, and metabolism. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: ZOOL 423.

## ZOOL 442. Invertebrate Zoology I (4)

Structure, classification, distribution, and life histories of invertebrates. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: Two years of college level biology or equivalent.

## ZOOL 443. Invertebrate Zoology II (4)

Continuation of ZOOL 442. Structure, classification, distribution, and life histories of invertebrates. (Lecture, 2 hours; laboratory, 6 hours; field trips) Prerequisite: ZOOL 442.

## zOOL 444. General Parasitology (4)

Parasitism, with emphasis on parasites of man. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: ZOOL 443 or consent of instructor.

## ZOOL 453. Cellular Biology (3)

Theory and studies of cellular phenomena dealing with chromosomes in genetics and evolution, physiology of gene, and mechanisms of development. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: One year of upper division biology; organic chemistry is recommended.

## ZOOL 460. Animal Behavior (Ethology)

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

## ZOOL 462. Herpetology (4)

Anatomy, behavior, classification, distribution, evolution, and life histories of amphibians and reptiles. (Lecture, 3 hours; laboratory, 3 hours or 1 field trip per week) Prerequisite: One year of zoology or consent of instructor.

## zOOL 463. Ornithology (4)

Behavior, classification, economic importance, evolution, life histories, migration, and special modifications of birds. Identification in field and laboratory. (Lecture, 3 hours; laboratory, 3 hours or 1 field trip per week) Prerequisite: One year zoology or consent of instructor.

## zOOL 464. Mammalogy (4)

Anatomy, behavior, classification, distribution, economic value, evolution, and life histories of mammals. (Lecture, 3 hours; laboratory, 3 hours; field trips) Prerequisite: One year of zoology or consent of instructor.

## zOOL 495. Selected Topics in Zoology (Topics to be specified in the

 Class Schedule) (1-5)Development of a selected branch of zoology. Topics vary each term, thus may be repeated for credit. Prerequisite: Two years of zoology or consent of instructor.

# Business Administration 

Thomas P. Barrett, M.A., Associate Professor, Chairman<br>Wayne R. Chapin, D.B.A., C.P.A., Professor<br>David O. Jenkins, D.B.A., C.P.A., Professor Robert W. Lambright, D.B.A., Professor<br>Kenneth G. Young, M.B.A., C.P.A., Professor<br>Cherukuri U. Rao, M.B.A., Lecturer<br>Carl J. Schuetze, M.S., Lecturer

The program currently offered by the department leads to the degree Bachelor of Arts, Business Administration. This program is designed to provide (1) professional preparation for those students planning to seek careers in the business community; (2) a firm educational foundation for those students planning to undertake graduate study in business administration.

## THE BACHELOR OF ARTS, BUSINESS ADMINISTRATION

DEGREE OBJECTIVES
The program leading to the Bachelor of Arts, Business Administration is designed to give each student:

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 decisions.
5. A degree of specialized training in a selected area of concentration.

## PROGRAM STRUCTURE

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

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

The business administration core, which comprises about 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 one-third of the major, provides the opportunity for a limited amount of specialized study in a selected area of interest. Permissible areas of concentration currently dvailable are Accounting, Administration, Finance, and Marketing, Coursework in the area of concentration is, for the most part, restricted to the senior year.
Completion of a minor is not required.

## DEGREE RÉQUUREMENTS

Students ŝ̉eeking the Bachelor of Arts, Business Administration must:

1. Complete the college-wide requirements for the Bachelor of Arts Dègree.
2. Complete prerequisites to the major.
3. Complete the major including both the business administration core and the selected area of concentration.

## NOTIC:

Most Bùsiness Administration courses have specific subject matter prerequisites for enirollment. 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 department, a qualifying examination máy be required.

## RECOMMENDED LOWER DIVISION PREPARATION

The major in business administration is essentially an upper division program. During the freshman and sophomore years the specified prerequisites to the major, several of which are included in the General Education program, should be completed.

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.
Elective courses should be chosen in the following areas: behavioral sciences, economics, English, and mathematics.

## dE'GREE MAJOR IN BUSINESS ADMINISTRATION

Prerequisites to the Major
BUS 200. Introduction to Computers, 4 units
BUS 201. Computer Programming, 3 units
*BUS 211. Principles of Financial Accounting, 5 units

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## Business Administration

ENGL 100. Freshman Composition, 4 units
ENGL 200. Sophomore Composition, 4 units
ECON. 250, 251. Principles of Economics I-II, 8 units
MATH 160. Statistics, 4 unitš, (or ECON 320. Quantitative Analysis, 4 units)
MATH 150. Finite Mathematics, 4 units
*PSYC 201. Introduction to Pssychology, 4 units
SOCL 101. Introduction to Sociology, 4 units
Completion of General Eduçation requirements in history and government.

## The Rusiness Administration Core

BUS 300. Quantitative Analysis for Business Decisions, 4 units
BUS 303. Business and its Environment, 4 units
BUS 313. Managerial Accounting, 5 units (students concentrating in Accounting will substitute BUS 311. Intermediate Accounting I, 4 units)
BUS 322. Business Finance, 5 units
BUS 330. Administrative Organizations, 4 units
BUS 331. The Administrative Process, 4 units
BUS 341. Basic Marketing, 4 units
BUS 408. Business Policy, 5 units
BUS 418. Managerial Accounting and Information Systems, 4 units
ECON 315. National Income Analysis, 4 units
ECON 331. Managerial Economics, 4 units

## Area of Concentration

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

## 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 312. Intermediate Accounting II, 4 units
BUS 314. Cost Analysis, 5 units
BUS 411. Advanced Accounting, 5 units
One of the following as approved by the major advisor:
BUS 317. Legal Factors in Business, 4 units
BUS 412. Auditing, 5 units
BUS 414. Income Tax Accounting, 5 units
BUS 415. Seminar in Accounting Theory, 4 units

## Administration

Administration is the process of establishing and maintaining a viable co-alignment of available resources and of streams of institutionalized action in a dynamic and interacting environment. The administrative process involves both adaptive

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## Business Adminisfration

and directive action. Administrators are employed in all of the functional fields and at all levels in organizations.

Careers in administration may be found in all types of organizations-not just the business organization.
Course requirements are as follows:
BUS 433. Production and Operations Administration, 4 units
BUS 434. Program Administration, 4 units
BUS 436. Human Problems in Administration, 4 units
One of the following as approved by the major adviser:
BUS 431. Personnel Administration, 4 units
BUS 437. Introduction to Systems Analysis and Design, 4 units

## Finance

Business finance is the three-fold function of determining funds requirements, evaluating and selecting alternate sources of funds, and managing available funds in order to achieve specified objectives.
Professional careers in finance are to be found in the financial administration of industrial, commercial, utility, and government enterprises as well as in financial institutions such as commercial banks, brokerage houses, and investment companies.
Course requirements are as follows:
ECON 333. Money and Banking, 4 units
Three of the following as approved by the major adviser:
BUS 422. Portfolio Management, 4 units
BUS 423. Security Analysis, 4 units
BUS 424. Financial Institutions, 4 units
BuS 425. Financial Management, 4 units

## Marketing

Marketing is the bridge which links the firm to the markets it serves. It includes measuring and interpreting market forces and market opportunities; developing prodiffes and/or services to match market opportunities; designing and managing channels of distribution; pricing; marker cultivation-advertising, sales promotion, personal sèlling; 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.
Cồrse requirements are as follows:
BUS 440. Consumer Behavior, 4 units
BUS 442. Marketing Research, 4 units
BUS 449. Problems in Marketing Strategy, 4 units
Orie of the following as approved by the major adviser:
BUS 443. Sales Management, 4 units
BU'S 444. Industrial Marketing, 4 units
BUS 445. Retailing, 4 units
BUS 446. Promotion Management, 4 units
BUTS 448. Business Logistics, 4 units

## DEGREE MINOR IN EUSINESS ADMINISTRATION

## Preprequisites to the Minor

BUS 211. Principles of Financial Accounting, 5 units
ECON 250, 251. Principles of Economics I-II, 8 units

## Business Administration

## Required Courses in Minor Field

BUS 303. Business and its Environment, 4 units
BUS 313. Managerial Accounting, 5 units
BUS 322. Business Finance, 5 units
BUS 330. Administrative Organizations, 4 units
BUS 341. Basic Marketing, 4 units
ECON 315. National Income Analysis, 4 units

## TEACHING CREDENTIALS

The major and the minor in business administration do not constitute appropriate preparation for prospective teachers of business. A new business education program designed specifically for prospective teachers of business is now under study by the faculty. It is hoped that this program can be inaugurated within the next two years.

A number of the courses currently offered by the department may be used in partial fulfillment of the requirements for the credential in secondary education. Interested students should consult the chairman of the department for assistance in. program planning.

## COURSE DESCRIPTIONS

## BUS 200. Introduction to Computers (4)

Computers and peripheral equipment and control software are considered as an integrated data processing system. Methopds of problem definition and solution are explored along with the nature of data structures. Computer programing techniques are introduced. (Lecture, 3 hours; laboratory, 2 hours) Prerequisite: 2 years of high school algebra or MATH 105.

LUS 201. Computer Programing (3)
A continuation of BUS 200, with emphasis on computer programing in business applications. (Lecture, 1 hour; laboratory, 4 hours) Prerequisite: BUS 200 or equivalent.

## IUS 211. Principles of Financial Accounting <br> (5)

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

## BUS 300. Quantitative Analysis for Eusiness Decisions

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 160 or ECON 320; MATH 150.

## mUS 303. Eusiness and Its Environment (4)

Continuing interaction and adaptation of business and its legal, political, and social environment. Prerequisites: ECON 250, 251; ENGL 200; SOCL 101; and completion of General Education requirements in U.S. History and Government:

## uus 311. Intermediate Accounting I (4)

Accounting theory, development of accounting principles, and their application to income determination and presentation of financial position for the business firm. Prerequisite: BUS 211.

## sus 312. Intermediato Accounting il (4)

A continuation of Intermediate Accounting I with particular emphasis on accounting for facilities investment, borrowed and equity capital, and managerial analysis of financial data. Prèrequisite: BUS 311 or consent of instructor.

## Business Administration

## ZUS 313. Managerial Acceunting (5)

Analysis and use of accounting and financial data by management for planning, control, and decision making. Designed for students who are pursuing a concentration in a field other than accounting; credit not applicable to concentration in accounting. Prerequisite: BUS 211.

Eus 314. Cost Analysis (5)
Principles and objectives of cost accounting, including budgeting, estimated and standard costs, distribution and administrative costs, differential costs, profir planning, direct costs, and pricing policies. Prerequisites: BUS 211, 300.

EUS 317. Legal Factors in Eusiness (4)
Law of business; emphasis on laws relating to personal property, bailments, negotiable instruments, partnerships, corporation, real property and insurance. Prerequisite: BUS 303.

## BUS 322. Business Finance (5)

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 300,311 or 313 ; ECON 315, 331.

## BUS 330. Administrative Organizations (4)

The functioning of complex human organizations and their subunits. The relationships among environment, technology, design, structure, and performance. Administrative organizations are viewed as indeterminate open systems, constantly striving to cope with uncertainty, and subject to criteria of rationality. Prerequisites: BUS 303; PSYC 201; ENGL 200; SOCL 101.

## BUS 331. The Administrative Process (4)

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: BUS 330.

EUS 340. Marketing in the Economy
Functions, institutions, and problems of producers, middlemen, and consumers examined from the viewpoint of their role and contribution to the U.S. economy. Prerequisites: ECON 250, 251; PSYC 201; ENGL 200; SOCL 101 recommended.

## EUS 341. Basic Marketing (4)

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. Prerequisites: ECON 250, 251; PSYC 201; ENGL 200; SOCL 101.

## BUS 401. Readings in Eusiness Administration (2)

Directed readings on selected broad issues in business administration. Topics change each quarter. May be repeated for a maximum of 6 units. (Formerly 301) Prerequisite: Consent of instructor.
eus 408. Eusiness Policy (5)
Problems of the business enterprise from standpoint of chief executive. Consideration of major company objectives, policies, and programs. Case problems and simulation exercises. Prerequisite: Completion of all other courses in the business administration core; completion or concurrent enrollment in all other courses required for the business administration major.

## Business Administration

## EUS 409. Eusiness, Society, and the Individual (3)

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. Prerequisite: Senior standing and consent of instructor.

## BUS 411. Advanced Accounting (5)

Accounting principles applied to accounting for partnership, installment sales, consignments, insolvency, estates, trusts, and business combinations. Prerequisite: BUS 312.

## BUS 412. Auditing (5)

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 312, and 314.

## BUS 414. Income Tax Accounting (5)

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 (4)

History and development of accounting theory; accounting standards, conventions and principles. Current problems, including a survey of current literature. Prerequisite: Completion of or concurrent enrollment in all courses required for the accounting concentration.

## EUS 418. Managerial Accounting and Information Systems (4)

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. (Formerly 318) Prerequisites: BUS 201, 313 or $314,322,331$ and 341.

## EUS 422. Portfolio Management (4)

A basic treatment of the problems of portfolio selection and management with special attention to the portfolio management problems of the individual investor. (Field trips) Prerequisite: BUS 322.

## BUS 423. Security Analysis (4)

A basic treatment of the problem of security analysis with special attention to determination of security values and investment timing. (Field trips) Prerequisite: BUS 322.

## BUS 424. 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) Prerequisites: BUS 322 or ECON 333.

## BUS 425. Financial Management (4)

Analysis of financial problems and policies of non-financial firms. Attention is given to case problems involving financial decisions concerning both long and short term capital problems including capital budgeting. Prerequisite: BUS 322.

## sUS 431. Personnel Administration (4)

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. Prerequisite: BUS 331.

BUS 432. Labor Management Relations (4)
Relationships with unionized employees. Role of the labor union. Union management agreements-negotiation and administration; impact of public policy. Prerequisites: BUS 431 and ECON 410.

## BUS 433. Production and Operations Administration (4)

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) Prerequisites: BUS 300, 331; ECON 331.

## EUS 434. Program Administration (4)

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) Prerequisites: BUS 300, 331.

## BUS 436. Human Problems in Administration (4)

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 331.

## EUS 437. Introduction to Systems Analysis and Design (4)

The methodology of management systems study. Analysis and documentation of existing systems, determination of system requirements, new systems design and implementation. (Field trips) Prerequisites: BUS 330, 418, and 433 or 434.

## BUS 440. Consumer Behavior (4)

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 340 or 341.

## Eus 442. Marketing Research (4)

Focus on the management of marketing information as a part of the decisionmaking 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.

BUS 443. Sales Management (4)
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.

EUS 444. Industrial Marketing (4)
Analysis of the managerial activities in marketing of industrial goods. Coverage of market information, marker planning, distribution methods, pricing strategies, and promotional problems in industrial marketing. Prerequisite: BUS 341 or consent of instructor.

## EUS 445. Netailing (4)

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 or consent of instructor.

## Business Adminisfration

## EUS 446. Promotion Management (4)

Study of methods of communicating to the market including advertising, sales promotion, publicity and their relation to personal selling. Emphasis is on managerial aspects rather than technical or creative techniques. (Field trips) Prerequisites: BUS 340 or 341 and 440.

## BU5 448. Business Logistics (4)

Management of the physical movement of goods and the deployment 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 and 341.

## EUS 449. Problems in Marketing Strategy (4)

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 341, 442, and/or consent of instructor.

## EUS 495. Selected Topics in Business Administration (Topic to be specified

 in Class Schedula) (1-5)Innovative course of study. May be repeated for credit. Prerequisite: Consent of instructor.
EUS 498. Individual Study (1-5)
For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisites: Consent of instructor, and approval of deparment chairman.

## Chemistry

Jimmy W. Hinkson, Ph.D., Associate Professor, Chairman<br>Evan M. Thompson, Ph.D., Associate Professor<br>James L. Booker, Ph.D., Assistant Professor<br>Hobart G. Hamilton, Ph.D., Associate Professor<br>Glen O. Hultgren, Ph.D., Assistant Professor<br>Alexander J. Pandell, Ph.D., Assistant Professor

The Department of Chemistry offers a program for students seeking a Bachelor of Arts degree. Additional electives in mathematics and physics are provided for those who wish to pursue a greater concentration in chemistry to prepare for advanced study or industrial employment. The Bachelor of Arts, Chemistry, will prepare students for careers in chemistry or teaching. Those who are interested in medicine, dentistry, veterinary medicine and pharmacy may elect a degree in chemistry and qualify for entrance into the professional school of their choice.

## REQUIREMENTS FOR THE BACHELOR OF ARTS, CHEMISTRY

Chemistry 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 41 upper division units including course requirements as specified for the major.
4. Completion of a minor is not required.

## DEGREE MAJOR IN CHEMASTRY

Prerequisites to the Major
Required courses in the major field:
CHEM 101, 102, 103. Principles of Chemistry I-III, 15 units
CHEM 211. Analytical Chemistry I, 5 units
Required courses in supporting fields ${ }^{*}$ :
PHYS 221, 222, 223. General Physics I-III, 12 units
PHYS 231, 232, 233. General Physics Laboratory I-III, 3 units
MATH 119. Calculus with Analytic Geometry, 4 units
MATH 120, 221. Calculus I-II, 8 units
The Major Units

CHEM 321, 322, 323. Organic Chemistry I-III
CHEM 324, 325, 326. Organic Chemistry-Lab I-III _____ 6
CHEM 401. Advanced Inorganic Chemiscry ................................................. 4

CHEM 461, 462, 463. Physical Chemistry I-III _-_-_-............................................ 9
CHEM 464, 465. Physical Chemistry 'Laboratory I-II ................................... 3
At least two of the following courses as approved by major adviser:
CHEM 427. Advanced Organic Chemistry

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## Chemistry

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The Major-Continued
    CHEM 467. Advanced Physical Chemistry
    CHEM 480. Introduction to Biochemistry
    CHEM 495. Selected Topics in Chemistry
    CHEM 498. Individual Study
    PHYS 372. Modern Physics
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    Total
                                    41-43
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## dEGREE MINOR IN CHEMISTRY

Consists of 24 units in chemistry as approved by the minor adviser, to include at least 12 units in upper division.

## TEACHING CREDENTIALS

Majors in chemistry seeking elementary and secondary credentials must fulfill the following requirements:

1. Degree major in chemistry.
2. Secondary credential candidates must complete 9 units in courses in chemistry as postbaccalaureate work and receive approval of the department as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## Lower Division

CHEM 100. Fundamentals of Chemistry (4)
Atoms, molecules and physical states of matter. Important classes of chemical compounds and chemical reactions. Experimentation as the approach to solving problems of natural phenomena. Not open to students with previous college chemistry. (Lecture, 3 hours; recitation, 1 hour.)

## CHEM 101. Principles of Chemistry 1 <br> (5)

Fundamental principles and laws underlying chemical action, developed from the laboratory viewpoint. (Lecture, 3 hours; recitation, 1 hour; laboratory, 3 hours) Prerequisite: Two years of high school algebra.

CHEM 102. Principles of Chemistry 11 (5)
Continuation of CHEM 101. (Lecture, 3 hours; laboratory, 6 hours) Prerequisite: CHEM 101.

## CHEM 103. Principles of Chemistry III (5)

Continuation of CHEM 102, with emphasis on equilibrium and qualitative analysis. (Lecture, 3 hours; laboratory, 6 hours). Prerequisite: CHEM 102.

## CHEM 211. Analytical Chemistry 1

Principles and practice of quantitative analysis. (Lecture, 3 hours; laboratory, 6 hours) Prerequisite: CHEM 103.

## Upper Division

## CHEM 321. Organic Chemistry I-Lecture (3)

Principles, basic techniques, and syntheses. Aliphatic and aromatic compounds. (Lecture, 3 hours) Concurrent enrollment in CHEM 324 required. Prerequisite: CHEM 103.

Continuation of CHEM 321. (Lecture, 3 hours) Concurrent enrollment in CHEM 325 required. Prerequisite: CHEM 321.

CHEM 323. Organic Chemistry III-Lecture
Continuation of CHEM 322. Heterocycles and natural products. (Lecture, 3 hours) Prerequisite: CHEM 322.
CHEM 324. Organic Chemistry I-Laboratory (1-2)
Syntheses, identification of unknowns, and laboratory techniques. Concurrent enrollment in CHEM 321 required. (Laboratory, 3 or 6 hours) Prerequisite: CHEM 103.

CHEM 325. Organic Chemistry Il-Laboratory (1-2)
Continuation of CHEM 324. (Laboratory, 3 or 6 hours) Concurrent enrollment in CHEM 322 required. Prerequisite: CHEM 324.

## CHEM 326. Organic Chemistry III-Laboratory (l-2)

Continuation of CHEM 325. (Laboratory, 3 or 6 hours) Prerequisite: CHEM 325.

## CHEM 401. Advanced Inorganic Chemistry (4)

Principles of inorganic chemistry. Bonding, coordination, chemistry, and thermodynamics as applied to the solution of problems in inorganic chemistry. (Lecture, 4 hours) Prerequisite: CHEM 461 or consent of instructor.

## CHEM 412. Analytical Chemistry II (4)

Emphasis on instrumental and physical methods. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: CHEM 211 and 461, or consent of instructor.

## CHEM 427. Advanced Organic Chemisfry (4)

Principles of organic chemistry. Reaction mechanisms, syntheses, and stereochemistry. (Lecture, 4 hours) Prerequisite: CHEM 461 or consent of instructor.

## CHEM 461. Physical Chemistry I (3)

Chemical thermodynamics, colligative properties, equilibrium, phase rule, kinetics, and other physical phenomena. (Lecture, 3 hours) Prerequisite: MATH 221, PHYS 223, 233.
CHEM 462. Physical Chemistry II (3)
Continuation of CHEM 461. (Lecture, 3 hours) Prerequisite: CHEM 461.
CHEM 463. Physical Chemistry III (3)
Conṭinuation of CHEM 462. (Lecture, 3 hours) Prerequisite: CHEM 462.

## CHEM 464. Physical Chemistry Laboratory I (1)

Laboratory application of the principles of physical chemistry. (Laboratory, 3 hours) Prerequisite: CHEM 461.
CHEM 465. Physical Chemistry Laboratory II (2)
Continuation of CHEM 464. (Laboratory, 6 hours) Prerequisite: CHEM 462.

## CHEM 467. Advanced Physical Chemistry (3)

Theory of Valence, Molecular spectra, statistical thermodynamics, photo-chemistry, solid state chemistry. Prerequisite: CHEM 463.
CHEM 480. Introduction to Blochemistry (4)
Chemical composition of cells, metabolism, enzymology. (Lecture, 4 hours) Prerequisite: CHEM 323 or consent of instructor.

## CHEM 495. Selected Topics in Chemistry (Topic to be specified in the Class Schedule) (1-5)

Development of a selected branch of chemistry. Topics vary each term, thus may be repeated for credit. Prerequisite: Consent of instructor.

## Chemistry

CHEM 498. Individual Study (1-5)
For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

Gruduate
CHEM 593. Individual Study (1-5)
For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

Drama<br>Bruce D. Hood, M.A., Associate Professor, Chairman<br>Douglas McDermott, PhD., Professor<br>Jere D. Wade, M.A., Assistant Professor<br>Noble T. Dinse, M.A.T., Assistant Professor

The Department of Drama offers the degree, Bachelor of Arts, Drama. The coursework is designed to develop a substantial background in both theory and practice of theatre art, and emphasizes the development of individual skills and artistic judgment.
Upon completion of the major, students are prepared for professional work, for teaching, and for study at the graduate level. Courses in the drama curriculum also provide aesthetic and cultural enrichment for the student in liberal arts.

## REQUIREMENTS FOR THE BACHELOR OF ARTS, DRAMA

- Drama majors are to:

1. Complete the requirements for the Bachelor of Arts Degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 37-40 upper division units which includes a program of study in fields of specialization as developed in consultation with the major adviser.
4. Completion of a minor is not required, but is recommended for secondary credential candidates.

## DEGREE MAJOR IN DRAMA

## Prerequisites to the Major

DRAM 200. Expression for the Performing Arts, 4 units
DRAM 210. Stagecraft, 4 units
DRAM 220. Introduction to Theatre, 4 units.
DRAM 230. Theatre Workshop I, 4 units
The Major
DRAM 300. Acting
DRAM 340. Methods of Theatrical Production
DRAM 341. Dramatic Theory and Criticism
DRAM 421. Theatre History I .an
DRAM 422. Theatre History II
DRAM 423. Modern Theatre
DRAM 430. Theatre Workshop II
DRAM 460. Theory of Directing
DRAM 461. Practicum-Directing
One of the following as recommended by the major adviser:
DRAM 303. Stage Lighting *
DRAM 306. Costuming *
DRAM 309. Makeup *
DRAM 311. Scene Design *
Total

* DRAM 210 Stagecraft is prerequisite for DRAM 303, 306, 309, and 311.


## Drama

The Major-Continued
Units

## Elective Courses

Elective courses available for strengthening major courses, or substitution for required courses on approval of major adviser
DRAM 250. Pantomime and Movement, 4 units
DRAM 400. Advanced Acting, 4 units
DRAM 424. History of Cinema, 4 units
DRAM 425. American Theatre, 4 units
DRAM 440. Reader's Theatre, 4 units
DRAM 498. Individual Study, 1-5 units
DEGREE MINOR IN DRAMA
Twenty-six units approved by the minor adviser are required, including at least 16 units in upper division courses. Courses required are DRAM 210, 220, 230, 340, the remainder to be selected in consultation with the minor adviser.

## TEACHING CREDENTIALS $\dagger$

Majors in drama seeking secondary credentials must fulfill the following requirements:

1. Degree major in drama. Minor in an appropriate teaching field is recommended.
2. Secondary credential candidates should complete nine units in drama as postbaccalaureate work and receive approval of drama adviser as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## DRAMA <br> Lower Division

## DRAM 200. Expression for the Performing Artist (4)

Elementary principles and practice of stage speech and movement for the actor, singer and performer.

DRAM 210. Stagecraft (4)
Principles and practice in the techniques of building, painting, mounting, and rigging stage scenery and properties.

## DRAM 220. Introduction to Theatre (4)

Introductory survey of theatrical arts; the theatre in history; the theatre as an art form; fundamentals of theatrical production.

DRAM 230. Theatre Workshop I
Practice in all phases and forms of theatrical production for public performance. May be repeated for a total of 10 units in DRAM 230 and DRAM 430.

DRAM 250. Pantomime and Movement (4)
Theory and exercise in theatrical pantomime and body movement. Prerequisite: Consent of instructor.

DRAM 300. Acting (4)
Study and practice in the theories and techniques of developing and projecting a character. Prerequisite: Consent of instructor.

[^13]DRAM 303. Stage Lighting (4)
Theory and practice of theatrical stage lighting; basic electricity, design of effects and operation of current devices.

DRAM 306. Costuming (4)
Principles and practice in the art of theatrical costuming. Prerequisite: DRAM 210 and consent of instructor.

DRAM 309. Makeup (4)
Principles and practice in the art of theatrical makeup. Prerequisite: DRAM 210 and consent of instructor.

DRAM 311. Scene Design (4)
Practice in the techniques of creating effective theatrical scenery. Beginning drawing or two-dimensional design is recommended. Prerequisite: Consent of instructor.

DRAM 340. Methods of Theatrical Production (4)
Basic techniques for organization and management of all types of performance in the theatrical environment. Designed to give the student necessary background for directing the work of others and for achievement of attractive and successful mounting of activities in the theatre-auditorium.

DRAM 341. Dramatic Theory and Criticism (4)
Survey of the work of the major theorists and critics of the drama; implications of their work seen in current forms.

DRAM 400. Advanced Acting (4)
Study and practice in the techniques of developing and projecting a character for the advanced student, with emphasis on special problems such as timing, line scansion in verse drama, etc. Prerequisite: Consent of instructor.

DRAM 421. History of Theatre, 500 E.C.- 1650 A.D. (4)
Historical analysis of the theatre from its primitive origins through the Renaissance.

DRAM 422. History of Theatre, 1650 to Present Day(4)

Historical analysis of the theatre from the Renaissance to the end of the 19th century.

DRAM 423. The Modern Theafre (4)
Analysis of the theatre in the 20th century.
DRAM 424. History of Cinema
Study of the cinema and its dynamics, and investigation of its impact upon contemporary culture (same as ENGL 424) Prerequisite: Consent of instructor.

DRAM 425. American Theatro
A comprehensive survey of the drama in America with investigation of the careers and contributions of prominent American playwrights, producers, directors and actors from Colonial times to the present.

DRAM 430. Theatre Workshop it
Participation in student directed experimental production of dramatic manuscripts. May be repeated for a total of 10 units in DRAM 230 and DRAM 430. Prerequisite: Consent of instructor.

## Drama

DRAM 440. Reader's Theafre (4)
Cutting, arranging, and performing all forms of literacure in the theatrical setting. Prerequisite: Consent of instructor.

DRAM 460. Theory of Directing (4)
Examination of the history, processes, and functions of the theatrical director. Practice in cutting and preparation of manuscripts for production. Basic principles of composition, control of visual and aural elements of production.

DRAM 461. Practicum-Directing (1-4)
Practical application of the principles of directing; workshop productions. Prerequisites: Completion of DRAM 460 and consent of instructor.

DRAM 495. Selected Topics in Dram (Topic to be specified in Class Schedule) (1-5)
Development of a selected topic in drama. Topics vary each term, thus may be repeated for credit. Prerequisite: Consent of instructor.

## ENGL 424. History of the Cinema

Study of the cinema and its dynamics and investigation of its impact upon contemporary vulture. (Same as DRAM 424) Prerequisite: Consent of instructor.

## DRAM 498. Individual Study (1-5)

For students capable of independent work and in need of advanced specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

Economics<br>Frederick E. Kottke, Ph.D., Professor, Chairman<br>William J. Mason, Ph.D., Professor<br>H. Dieter Renning, Dr. rer. pol., Associate Professor<br>Edward C. Erickson, Ph.D., Assistant Professor<br>Yin-Po Lee, Ph.D., Assistant Professor<br>William Dale Crist, M.A., Assistant Professor

The Division of Arts and Sciences 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 preprofessional base for the prospective law student; and finally, (4) to expand course offerings for the prospective business administration major enabling him to satisfy vocational objectives in government, business, 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.)

## 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 36 upper division units.
4. Completion of a minor is not required.

## DEGRE MAJOR IN ECONOMCS

## Prerequisites to the Major

ECON 250, 251, 252. Principles of Economics I-III, 12 units
Recommended courses in supporting fields:
Course work in mathematics as recommended by major adviser.

## The Major

A minimum of 36 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

DEGREE MINOR IN ECONOMICS
Twenty-four units approved by the minor adviser are required, including at least 16 units in upper division courses.

## Economics

## TEACHING CREDENTIALS

Majors in economics for elementary and secondary credentials must fulfill the following requirements:

1. Degree major in economics.
2. Secondary credential students must complete 9 units in courses in economics as postbaccalaureate work and receive approval of Economics as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## COURSE DESCRIPTIONS

## Lower Division General Courses

ECON 250. Principles of Economics I (4)
Macroeconomics; scope, method, economic resources, monetary system, income determination, stability, public finance.

## ECON 251. Principles of Economics II (4)

Microeconomics; price system and market structures, public policy and income distribution.

## ECON 252. Principles of Economics Ift <br> (4)

Fundamentals of international trade; principles and problems of economic growth and development, economic underdevelopment; analysis of economic systems.

## Upper Division <br> ECONOMIC THEORY AND DOCTRINES

ECON 315. National Income Analysis (4)
Statistics of Output, Consumption, Investment, Employment, and Prices; National Income and Product Tables. Prerequisite: Economic principles or consent of instructor.

ECON 331. Managerial Economics (4)
Application of economics to management decision making; demand analysis and sales forecasting, production and cost analysis, pricing approaches, government regulations, and capital budgeting. Prerequisite: Economic principles or consent of instructor.

ECON 400. Intermediate Theory (Macroeconomics) (4)
Macroanalysis; income levels, expenditures, prices, and employment; application to depression and inflation. Prerequisite: Economic principles or consent of instructor.

ECON 401. Economic Thought I (4)
Important ídeas of major schools of economics and economists from 1500-1900; Mercantilism through Neoclassical economics.

## ECON 402. Economic Thought It (4)

Important ideas of major schools of economics and economists from 1900 -present; Institutionalism through Post-Keynesianism.

ECON 420. Intermediate Theory (Microeconomics) (4)
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.

## MONEY AND BANKING

ECON 33̈2. Monoy änd Ranking (4)
Relationship of money and credit to production and exchange; monetary policies for full employment and economic stability. Prerequisite: Economic principles or consent of instructor.

## ECON 333. Money and Banking (4)

Development of banking; the Federal Reserve System; bank supervision and regulation; noncommercial financial institutions; international banking mechanisms. Prerequisite: Economic principles or consent of instructor.

## PUELIC FINANEE AND FISCAL POLICY

ECON 454. Public Finance and Fiscal Policy (4)
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

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 456. State and Local Finance and lis Administration
State and local revenues and expenditures; equity, tax administration, influence of tax policy on property and resource utilization; intergovernmental fiscal relations, debt, capital budgeting.

## LABOR ECONOMICS

ECON 410. Labor Economics (4)
History and theory of labor movement in United States; theory of wages; income distribution and economic problems of the aged, the chronically unemployed and minority groups. Prerequisite: Economic principles or consent of instructor.

## ECON 411. Collective Bargaining ( 4 )

Labor law; theory of collective bargaining; case examination of labor-management negotiations. Prerequisite: Economic principles or consent of instructor.

## INTERNATIONAL ECONOMICS

ECON 405. Comparative Economic Systems (4)
Capitalism and alternative economic systems; differences and comparative performance. Prerequisite: Economic principles or consent of instructor.

## ECON 440. Economic Development (4)

Measurement of economic growth; economic development of contemporary underdeveloped countries; case studies; economic theories and policies for accelerated growth. Prerequisite: Economic principles or consent of instructor.

ECON 441. International Trade (4)
Conceprs of international exchange; exchange rates, balance of payments, free versus regulated trade, and international investment. Prerequisite: Economic principles or consent of instructor.

## ECON 442. Sovief Economics (4)

Institutions and operating principles of the Soviet planned economy; economic performance to present; prospects for future.

## Economics

## ECON 443. International Economics Policies (4)

United Nations-affiliated and other international economic organizations; objectives and evaluation of activities; current foreign economic policy of the U.S.

## ECON 444. Case Study in Economic Underdevelopment (4)

Specific economic policies and problems associated with a particular underdeveloped country. Prerequisite: ECON 440.

## ECON 445. Economic Planning (4)

Structure, Methodology, and Application of Economic Planning; Decentralized vs. Centralized Organization of Economic Activity; Macroeconomic Planning Models. Prerequisite: Economic principles or consent of instructor.

## ECONOMIC HISTORY

## ECON 310. European Economic History (4)

Analysis of economic development from medieval period to present; evolution of capitalism; economics of imperialism; industrial revolution; European economic community. Prerequisite: Sophomore standing.

## ECON 311. Economic History of the United States (4)

Analysis of economic growth and development from colonial period to present; application of growth theory to the facts of history; special attention paid to industrialization, transportation, market expansion and the labor movement. Prerequisite: Economic principles or consent of instructor.

## GENERAL COURSES

## ECON 300. Concepts of Economics (4)

Fundamental economic concepts-micro and macro-and their relationship to current economic issues; full employment, economic growth, economic stability, and economic underdevelopment. Credit not allowed for students who have had a course in economic principles.

ECON 320. Quanfitative Analysis I (4)
Central ideas and application of statistical inference; parameters of distribution analysis; time-series analysis; introduction to regression and correlation analysis.

## ECON 321. Quantitative Analysis II (4)

Central ideas for application of variance analysis, multiple regression and correlation, partial correlation, rank correlation, test of homogeneity, nonparametric tests, $\mathrm{X}^{2}$ square tests, and poisson distribution. Prerequisite: ECON 320 or consent of instructor.

## ECON 330. Economic Fluctuations (4)

Measurement of economic fluctuations; theories of economic cycles; economic forecasting. Prerequisite: Economic principles or consent of instructor.

## ECON 495. Solected Topics in Economics (Topics to be specified in Class Schedule) (1-5)

Development of a selected topic in economics. Topics vary each term, thus may be repeated for credit. Prerequisite: Junior standing or consent of instructor.

## ECON 496. Senior Seminar (4)

Reading and discussion in significant areas of economics; analysis of major contemporary economic problems, national and international. Prerequisite: Senior standing in economics.

## ECON 498. Individual Study (1-5)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

Education<br>Richard V. Jones, Ed.D., Associate Professor, Chairman<br>James C. Cole, Ed.D., Professor<br>William W. Day, Ed.D., Professor<br>Charles R. Farrar, Ed.D., Professor<br>William F. McClintock, Ph.D., Professor<br>Haig A. Rushdoony, Ed.D., Professor<br>Lorna M. Swain, Ed.D., Professor Joseph W. Corbin, Ed.D., Associate Professor David Glenday, Ed.D., Associate Professor Lawrence E. Gowin, Ed.D., Associate Professor Jack A. Graves, Ed.D., Associate Professor Priscilla R. Smith, Ed.D., Associate Professor Roy Y. Yasui, Ph.D., Associate Professor R. J. Moriconi, Ed.D., Associate Professor Lloyd R. Thompson, Ed.D., Associate Professor Algin C. Hurst, M.A., Assistant Professor Richard Prescott, M.A., Visiting Lecturer

The College, in addition to curricula in the liberal arts, offers professioṇal programs in the Education Department to prepare candidates for elementary and secondary school teaching certification. Course work in school supervision and counseling and guidance is also available. Those students interested in credential programs should make application to the Credentials Secretary. 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 Education Department Office. The College also offers specialized preparation for teachers in the area of the speech and hearing handicapped, as described in the Speech Communication section of this catalog.

Professional programs in education are designed to help students achieve those competencies which are essential to effective teaching within the range of services authorized by the respective teaching credentials. Credential programs include study of the purposes of American education, the nature of modern society, human growth and development, the learning process, and instructional materials and techniques applicable at successive educational levels. It is assumed that the student will also acquire a broad base of liberal arts preparation, including a major and usually a minor in selected fields of academic study. Professional courses which satisfy credential requirements are listed in the section under each credential. All of these courses are presently accepted by the California State Board of Education in fulfilment of certification regulations.*

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## Education

The credentials which are offered through the Education Department and which are accredited by the California State Board of Education are:

1. Standard Teaching Credential with a Specialization in Elementary School Teaching.
2. Standard Teaching Credential with a Specialization in Secondary School Teaching.
The student who plans to apply for admission to a credential program in elementary or secondary school teaching first needs to be familiar with admission procedures as listed in the catalog section on Credential Programs. If a student is fully qualified and admissible under quotas assigned, he may be scheduled for one of the following credential programs:

## THE ELEMENTARY CREDENTIAL PROGRAM

A candidate for admission to the elementary credential program must complete the requirements as outlined in the catalog section on Credential Programs.

## MINIMAL REQUIREMENTS FOR ADMISSION TO STUDENT TEACHING

1. One quarter of college residence ( 12 units) to include at least one approved education credential course.*
2. Admission to Elementary Credencial Program.
3. Successful completion of EDUC 411, 412, and one approved curriculum course with a grade of "C" or better in each.
4. Maintenance of a 2.50 grade point average in professional education courses.
5. Medical clearances (physical examination and tuberculosis test) on file with the Credentials Secretary.
6. Completion of application form by deadline due date.

## APPLICATION SCHEDULE FOR STUDENT TEACHING

Application must be on file with the Education Department in accordance with the following schedule:


c. Spring Quarter

January 20

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## TYPES OF ELEMENTARY CREDENTIAL PROGRAMS

A candidate for the elementary teaching credential may seek to pursue one of the following: I-the regular five-year pattern; II-the partial, four-year pattern; and III-the Internship Program in Elementary Teaching.
In the regular five-year program, Plan I, eligible students may complete requirements for a Standard Teaching Credential with a Specialization in Elementary Teaching, issued for life. In the partial, four-year program, Plan II, eligible students may complete student teaching as undergraduates, fulfilling fifth year requirements for the Standard Teaching Credential while teaching. In the Internship Program in elementary teaching, Plan 11I, eligible students may enter the internship program which includes full-time teaching while receiving college credit under college supervision during the postbaccalaureate year and may receive the Standard Teaching Credential with a Specialization in Elementary Teaching upon successfully completing the internship program.
I. The Regular Five-Year Pastern

Candidates admitted to the Elementary Program are to complete successfully:*

1. A baccalaureate degree from an accredited institution.
2. An academic major. Those offered at Stanislaus State College include the following: (Note: All units referred to are quarter units.)
3. An academic minor only where required.

## Single Subject

| Anrhronolngy | French | Psychology |
| :--- | :--- | :--- |
| Biological Sciences | History | Sociology |
| Chemistry | Mathematics | Spanish |
| Drama | Music | Speech |
| Economics | Physical Education | Interdepartmontal |
| English | Physics | Physical Sciences |
| Art | Political Science | Social Sciences |

4. General Education requirements are $671 / 2$ quarter units of General Education, with course work in five of the six areas including the English and composition requirement in the humanities area.
a. Humanities (English, speech, philosophy)
b. Social Sciences (anthropology, economics, geography, history, political science, psychology, and sociology)
c. Natural Sciences (biological and physical sciences)
d. Mathematics
e. Arts (music, art, and drama)
f. Foreign Languages

The humanities must include either four quarters of English course work including a course in advanced English composition or three quarters of English course work, and in addition, the passing of a special examination in advanced English composition. ENGL 300-Junior Composition.

The requirements on the provisions and principles of the United States Constitution must be completed for the issuance of this credential. This requirement may be met either by the completion of two semester (three quarters) hours in course work on the United States Constitution or by passing an examination given by an approved institution on the provisions and principles of the Constitution. Course work offered to meet this requirement will apply as credit in the social sciences area.

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## Education

5. MATH 100 or 600 .
6. Foundations: EDUC 411 and EDUC 412.
7. EDUC 425 and by advisement at least three of the following: EDUC 426, 427,428 , and 429 (all five are recommended).
8. Student Teaching: EDUC 441, 442, 443.
9. Other courses by advisement.
10. A total of forty-five (45) approved upper division or graduate units taken after the baccalaureate degree.

Upon satisfactory completion of these requirements, a candidate who applies is recommended by the Academic Standard and Readmission Committee for the Standard Teaching Credential with a Specialization in Elementary Teaching.
11. The Partial Four-Year Pattern*

Candidates admitted to the Elementary Program are to complete successfully: $\dagger$

1. General Education requirements. (Section 3 in the foregoing.)
2. Requirements for major.
3. A minor where required or a signed waiver of minor.
4. Baccalaureate degree.
5. Prerequisites to student teaching, as follows:

EDUC 411. Social Foundations of Education (4)
EDUC 412. Psychological Foundations of Education (4)
One of the following as approved by a credential adviser:
EDUC 425. Reading in Elementary Schools $\ddagger$ (4)
EDUC 426. Social Studies in Elementary Schools (4)
EDUC 427. Language Arts in Elementary Schools (4)
EDUC 428. Mathematics in Elementary Schools (4) EDUC 429. Science in Elementary Schools (4)
6. Student Teaching I (EDUC 441) and one additional course from Requirement 5.
7. Student Teaching II (EDUC 442) and two additional courses from Requirement 5.
8. Student Teaching III (EDUC 443).

Upon satisfactory completion of these requirements, a candidate applies directly to the Bureau of Teacher Education and Certification, State Department of Education, and will receive a Standard Teaching Credential with a Specialization in Elementary Teaching issued on Partial Fulfillment of Requirements. Other requirements for a Life Credential are to be completed within seven years of the date of first employment under this credential.

## III. The Internship Program

The College offers an Internship Program in elementary teaching. This program makes available to selected and highly qualified teacher candidates with a baccalaureate degree, an alternate program for completing requirements for a Standard Teaching Credential with a Specialization in Elementary Teaching. Interns are fully salaried in college-designated districts and are supervised by the school district and the College.

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## REQUIREMENTS AND PROCEDURES FOR THE ONE-YEAR INSTITUTIONAL' INTERNSHIP PROGRAM

Students seeking admission to the Internship Program must first gain admission to the Elementary Credential Program by completing the following:
a. A minimum of 12 units in residence at Stanislaus State College.
b. EDUC 411, 412, and 425.
c. Minimum GPA of 2.7 earned in residence work and in required professional studies.
d. Declaration of intent to be a candidate for elementary internship.

When the foregoing are completed, successful candidates are advanced to Unclassified Internship Status.

## Unclassified Internship Status

Students who have been advanced to Unclassified Internship Status must complete the following:
a. Student Teaching I (EDUC 441 for six units) and at least one of the following as approved by a credential adviser:

EDUC 421. Principles of Elementary Education (4)
EDUC 426. Social Studies in Elementary Schools (4)
EDUC 427. Language Arts in Elementary Schools (4) EDUC 428. Mathematics in Elementary Schools (4) EDUC 429. Science in Elementary Schools (4)
b. Maintenance of a minimum grade point average of 2.7.
c. Recommendation for Classified Status by Elementary Credential Screening Committee.
d. Admission to Classified Status by Academic Standard and Readmission Committee.
Upon sátisfactory completion of the foregoing, successful candidates may be advanced to Classified Internship Status.

## Classified Internship Status

Students who have been advanced to the Classified Internship Status must complete the following:
a. A baccalaureate degree and an academic major from an accredited institution.
b. The General Education requirements as specified for the regular five year pattern.
c. A College approved one-year internship arrangement for a salaried full-time elementary (K-6) teaching position.
d. Final College concurrence with school district's placement of intern.
e. At least one additional course from EDUC 421, 426, 427, 428, or 429.
f. An application for internship certification.

Intern candidates successfully completing the foregoing are ready to begin the internship year.

## The Internship Year

Intern teachers must complete the following during the Internship Year to qualify for a Standard Credential:

## Education

a. A minimum of twelve (12) units of internship teaching, and six (6) units of internship seminar:

1. First Quarter

EDUC 641. Internship Teaching in Elementary School I (4-6)
EDUC 651. Elementary Internship Seminar I (2)
2. Second Quarter

EDUC 642. Internship Teaching in Elementary School II (4-6)
EDUC 652. Elementary Internship Seminar II (2)
3. Third Quarter

EDUC 643. Internship Teaching in Elementary School III (4-6)
EDUC 653. Elementary Internship Seminar III (2)
b. Additional individual requirements, including a fourth curriculum course.
c. Application for Standard Teaching Credential with a Specialization in Elementary Teaching issued for Life.

## THE SECONDARY CREDENTIAL PROGRAM

A candidate for admission to the secondary credential program must complete the requirements as outlined in the catalog section on Credential Programs.

## REQUIREMENTS FOR ADMISSION TO STUDENT TEACHING

1. Admission to the Secondary Credential Program.
2. Recommendation in terms of his subject matter competence by the departments of his major and minor teaching fields.
3. Maintenance of a 2.50 grade point average in professional education courses, and in both teaching major and minor.
4. Satisfactory completion of at least one approved course at this College in the Education Department.

## APPLICATION SCHEDULE FOR STUDENT TEACHING

Application must be on file with the Education Department in accordance with the following schedule:

For student teaching beginning in:
a. Fall Quarter $\qquad$ April 15 (those in attendance during spring quarter)

c. Spring Quarter.

No applications accepted

## TYPES OF SECONDARY CREDENTIAL PROGRAMS

A candidate for the Secondary Teaching Credential may apply for one of the following: Plan I-the regular five-year pattern; or Plan II-the Internship Program. ${ }^{8}$

## 1. The Regular Five-Year Paftern

Candidates admitted to the Secondary Program are to complete successfully: $\dagger$

1. Baccalaureate degree from an accredited institution.
2. General Education requirements are $671 / 2$ quarter units of General Education, including course work in four of the six areas including the English and composition requirement in the humanities area.
a. Humanities (English, speech, philosophy)
b. Social Sciences (anthropology, economics, geography, history, political science, psychology, and sociology)
c. Natural Sciences (biological and physical sciences)
d. Mathematics
e. Fine Arts (music, art, and drama)
f. Foreign Languages

The humanities must include either four quarters of English course work including a course in advanced English composition or three quarters of English course work, and in addition, the passing of a special examination in advanced English composition Engl 300-Junior Composition.

The requirements on the provisions and principles of the United States Constitution must be completed for the issuance of this credential. This requirement may be met either by the completion of two semester (three quarters) hours in course work on the United States Constitution or by passing an examination given by an approved institution on the provisions and principles of the Constitution. Course work offered to meet this requirement will apply as credit in the social sciences area.
3. An academic major. For a single subject major, 9 units are to be completed as postbaccalaureate work in courses in the major as recommended by the major department and approved by the credential adviser.

## Single Subject

| Anthropology* | History | Sociology* |
| :--- | :--- | :---: |
| Biological Sciences | Mathematics | Spanish |
| Chemistry | Music | Speech |
| Drama | Physical Education | Interdepurtmental |
| Economics* | Physics | Physical Sciences |
| English | Political Science | Phys |
| Art | Psychology* | Social Sciences |

4. Minor if desired. California credential regulations require no minor if the major is in an academic subject commonly taught in the public high schools. However, employment opportunities are significantly better for students who
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## Education

have completed a minor of sufficient scope as to equip the student with a second teaching field.

| Anthropology* * | Mathernatics |
| :--- | :--- |
| Biology | Music |
| Chemistry | Physical Education |
| Drama | Physics |
| Economics* | Political Science |
| English | Psychology |
| Art | Sociology* |
| French | Spanish |
| History | Speech |

5. Requirements in Professional Education. The education courses listed below are required to gain College recommendation for the secondary teaching credential. Students may elect certain professional education courses in addition to those listed. The following is a recommended sequence; however, this sequence may be rearranged in consultation with a credential adviser.

## Foundations

EDUC 411. Social Foundations of Education (4)
EDUC 412. Psychological Foundations of Education (4)
Curriculam and Instruction
First Quarter
EDUC 448. Introduction to Secondary Education (6)
EDUC 671. Student Teaching in Secondary Schools I (4)
Electives $\dagger$
Second Quarter
EDUC 449. Curriculum Planning in Secondary Schools (4) (or equivalent course in Education 450 series)
EDUC 672 or 673. Student Teaching in Secondary Schools II (4) Electives $\dagger$
Third Quarter
EDUC 673. Suident Teaching in Secondary Schools III (6) Electives $\dagger$
6. Recommended Electives in Education, if desired

EDUC 436. Selection and Use of Instructional Materials (3)
EDUC 575. Tests, Measurement and Evaluation (3)
EDUC 576. Exceptional Children and Youth (4)
EDUC 577. Counseling and Guidance (3)
Other electives may be drawn from 600 level courses, or the 500 level if qualified.

Upon satisfactory completion of these requirements, a candidate who applies is recommended for the Standard Teaching Credential with a Specialization in Secondary Teaching.

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## II. The Internship Program in Secondary Teaching

The Secondary Internship Program is designed as an alternate to the regular student teaching program for those students who have demonstrated academic competence as well as a high degree of maturity and self-direction. The program provides a fully salaried position in secondary teaching which is carefully supervised by the College and the employing school district, and includes a coordinated program of studies during both the initial teaching year and the preceding and following summer sessions. The requirements for a Standard Teaching Credential with a Specialization in Secondary Teaching will be completed at the end of this program.

## REQUIREMENTS AND PROCEDURES FOR THE INTERNSHIP PROGRAM

1. Pre-internship (unclassified internship status)
a. Completion of all baccalaureate requirements, including the completion of a teaching major and minor and the General Education, English, and Constitution requirements as noted for the Regular Five-Year Pattern.
b. GPA minimum of 2.7 in teaching major, 2.5 in teaching minor, and 2.5 overall in upper division work.
${ }^{*} c c$ Completion of screening procedures, including:
(1) Application forms
(2) Interviews and testing
d. Acceptance into program by the Credentials Screening Committee.
e. Completion of EDUC 471 (Student Teaching in Secondary Schools I) during the spring quarter prior to the internship year or equivalent.
2. Internship Year (classified internship status)
a. EDUC 611 (4), 612 (4), 613 (4): Internship Teaching in the Secondary Schools I, II, III. College credit is earned for the successful supervised internship teaching. Interns will be co-supervised by school district and college personnel.
b. EDUC 614 (5), 615 (5), 616 (5): Secondary Internship Seminar. These classes will meet at Stanislaus.State College at times which will not conflict with the teaching schedules of interns. The seminar will deal with the social and psychological foundations of education, secondary curriculum and instruction, use of audio-visual aids, and practical problems of teaching.
c. A minimum of 18 quarter units of electives, including at least 9 units in the teaching major at the upper division or graduate level. These courses may be taken prior to and following the internship teaching. Candidates will be permitted to take course work during the school year only in individually approved special cases.
d. Application for Standard Teaching Credential with a Specialization in Secondary Teaching issued for Life.

## MASTER OF ARTS IN EDUCATION

The Master of Arts in Education is designed to meet the professional growth needs of teachers who are presently employed in the schools. Course work is offered late afternoons and evenings. Concurrent programming for both advanced degrees and credentials is offered. The masters program may be completed in one of four areas of specialization: (1) elementary curriculum; (2) secondary curriculum; (3) supervision and curriculum; and (4) counseling. The program requires each candidate to complete, in addition to a thesis (or three approved masters of

## Education

arts papers), 45 quarter units made up of: Required courses and approved electives. Refer to the Education Department for descriptive material and admission advisement. (Details of the M.A. Program are available in the Education Department Office.)
Programming worksheets outlining required and elective course work for each specialization may be obtained at the Education Department Office. Pre-admission screening data must be filed with the department well in advance of registration in order that the College may select the students to be admitted under existing quotas.

Candidates will need to provide evidence of successful professional service, achievement of professional skills and knowledge, and academic aptitude in graduate course work before being advanced to classified graduate standing. Complete sets of transcripts, required Graduate Record Examinations scores, and verification of successful teaching experience need to be filed with the Education Department.

## COURSE DESCRIPTIONS

## Lower Division

EDUC 100. Participation in Individual Instruction (1)
Consideration of the role of the tutor and the teacher in the school. Values and limitations of various learning situations. Opportunities to assist teachers and students in practical instructional situations for the individual and small groups. May be repeated for a total of 3 units.

## EDUC 200. Introduction to Educution (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.

## FOUNDATIONS

Upper Division
EDUC 411. Social Foundations of Education (4)
Society and education; historical trends, philosophical stances, and social phenomena influencing American public education; sociology of education. (Formerly 311) Prerequisite: Consent of credential adviser; EDUC 200 and PSYC 313 recommended.

## EDUC 412. Psychological Foundations of Education (4)

Educational implications of growth and development; learning process; use of psychological data in teaching; assessment techniques; observation techniques. (Formerly 312). Prerequisite: Consent of credential adviser; EDUC 200 and PSYC 313 recommended.

## CURRICULUM AND INSTRUCTION

## Upper Division

EDUC 421. Principles of Elementary Education (4)
Incroduction to teaching in the modern elementary school. Directed observation is included. Prerequisites: EDUC 411 and 412.

## EDUC 425. Reading in Elomentary 5chools

(4)

Teaching reading in grades $\mathrm{K}-9$; concepts and applications of reading skills; including phonics, to the elementary school program. Prerequisites: EDUC 411 and 412.

## EDUC 426. Social Studies in Elementary Schools (4)

Teaching social studies in grades K-9; concepts and applications. Planning, materials, methods of teaching. Prerequisites: EDUC 411 and 412.

EDUC 427. Language Arts in Elementary Schools
Teaching language arts in grades K-9; instruction, materials, and methods; development of children's speech and listening skills, oral and written expression, handwriting and spelling. Prerequisites: EDUC 411 and 412.

## EDUC 428. Mathematics in Elementary Schools (4)

Teaching mathematics in grades K-9; concepts and applications. Instructional planning and demonstrations based on modern strands and techniques. Prerequisites: EDUC 411 and 412; MATH 100 or 600.

## EDUC 429. Science in Elementary Schools (4)

Teaching science in grades K-9; concepts and applications. Instructional planning and demonstrations based upon modern approaches. Prerequisite: EDUC 411 and 412.

## EDUC 430. Health and P.E. in Elementary Schools

Purposes, materials, activities, and techniques applicable in elementary school health and physical education. Prerequisites: EDUC 411 and 412.

## EDUC 432. Children's Literature in Elementary Schools (3)

Introduction to major aspects of children's literature, including poetry, fantasy, fairy and folk tales, heroes, biography, historical and modern fiction. Evaluation of children's books, classroom utilization and correlation of total school curriculum. Prerequisite: EDUC 425 or 427 , admission to student teaching or teaching experience.

## EDUC. 434. Outdoor Education (2)

Introduction to outdoor teacher education with appropriate teaching procedures and instructional materials. Includes one weekend directed outdoor camp field experience. Prerequisite: One curriculum course, preferably EDUC 426 or 429.
EDUC 435. Improving Reading in Elementary Schools (3)
Analysis of children's reading problems and needs. Individualizing, grouping, production and use of materials in skill development-including phonics-and correlation of reading with total curriculum of elementary schools, K-9. Prerequisites: Some reading course work, or teaching experience, and consent of instructor.

## EDUC 436. Selection and Use of Instructional Materials (3)

Use of libraries, instructional materials centers, and audio-visual materials and equipment. Preparation of resource files. Meets credential requirement in audiovisual. Prerequisites: EDUC 411 and 412.

## EDUC 448. Introduction to Secondary Education (6)

Introduction to teaching in secondary schools (grades 7-12). The objectives of secondary education; foundations of curriculum and planning and development; scope of the instructional program, current trends and practices. Analysis of educational practices appropriate to culturally different groups. Prerequisites: EDUC 411, 412 and concurrent enrollment in student teaching.

## EDUC 449. Curriculum Planning in Secondary Schools (4)

Preparation for teaching in major and minor fields: analysis of current trends and practices, review of courses of study, preparation of teaching guides-objectives, scope and sequence of content, learning experiences, instructional materials, evaluation. Prerequisite: EDUC 448, and concurrent enrollment in student teaching.
EDUC 451. Curriculum and Instruction: Foreign Language (3)
Current practices in modern foreign language instruction, with emphasis on laboratory procedures and the audio-lingual-visual approaches. Prerequisite: Admission to Credential Program or teaching experience.

## Education

EDUC 452. Curriculum and instruction: Art (4)
Contemporary trends in art education. Curriculum development, selection and organization of materials and procedures for the secondary school. Field observations. Prerequisites: Admission to student teaching and consent of credential adviser. (Same as ART 452.)

## EDUC 453. Curriculum and Instruction: English (4)

Contemporary trends in English education. Curriculum development, selection and organization of materials and procedures for the secondary school. Field observations. Prerequisites: Admission to student teaching and consent of credential adviser. (Same as ENGL 453.)
EDUC 454. Curriculum and Instruction: Social Studies (4)
Contemporary trends in social studies education. Curriculum development, selection, and organization of materials and procedures for grades 7 through 12. Field observations. Prerequisites: Admission to student teaching and consent of credential adviser and/or consent of instructor.

EDUC 495. Selected Topics in Education (Topics to be specified in Class Schodulo)
Development of a selected topic in education. Topics vary each term, thus may be repeated for credit. Prerequisite: Consent of instructor.
EDUC 498. Individual Study (1-5)
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 Education Department prior to registration. May be repeated for a total of 9 units. Prerequisites: Departmental approval and consent of instructor.

## STUDENT TEACHING <br> Upper Division

EDUC 441. Student Teaching in Elementary Schools I (4 or 6)
Supervised observation-participation and student teaching in public elementary school settings. Includes a weekly on-campus meeting dealing with legally required instruction in elementary schools, the structure of public education, and student teaching problems. P or F grade is given. Prerequisites: EDUC 411 and 412 and two curriculum courses (one may be taken concurrently). (Petition required for 6 units enrollment.)

EDUC 442. Student Teaching in Elementary Schools II (4)
Supervised observation-participation and student teaching in public elementary school settings. Includes a weekly on-campus meeting dealing with professional ethics and activities, use of audio-visual, and student teaching problems. P or F grade is given. Prerequisite: EDUC 441, and four curriculum courses (one or two of which may be taken concurrently).
EDUC 443. Student Teaching in Elementary Schools III (10 or 12)
Supervised observation-participation and student teaching in public elementary school. Full-day assignments. Includes a weekly two-hour seminar dealing with teaching topics and problems. Includes instruction and experience in audio-visual methods and materials. P or F grade is given. Prerequisire: EDUC 442 and/or approval of coordinator. (Petition required for 12 units enrollment.)

## EDUC 444. Student Teaching in Outdoor Education: Elementary (2)

Directed observation-participation and student teaching of sixth graders for one school week out-of-doors at a selected campsite; includes on-campus pre-outdoor and post-outdoor teaching meetings. P or F grade is given. Prerequisites: EDUC 434 and consent of credential adviser.

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 experience. P or F grade is giv́en. Prerequisites: EDUC 411 or 412, concurrent enrollment in EDUC 448, 449 or 451-4, and consent of credential adviser.

## Graduafe

## EDUC 671. Student Teaching in Secondary Schools 1 (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 experience. P or F grade is given. Prerequisites: EDUC 411 or 412, concurrent enrollment in EDUC 448, 449 or 451-4, and consent of credential adviser.

## EDUC 672. Student Teaching in Secondary Schools II (4)

Supervised observation-participation and student teaching in public secondary school settings. Includes weekly seminar dealing with methodology, instructional materials, and problems encountered during the student teaching experience. P or F grade is given. Prerequisites: EDUC 671 and consent of credential adviser.
EDUC 673. Student Teaching in Secondary Schools III (6)
Supervised observation-participation in student teaching in public secondary school settings. Includes a weekly seminar dealing with teaching topics and problems. $P_{\text {e }}$ or F grade is given. Prerequisite: EDUC 671, and/or 672, and consent of credential adviser.

## Professional Postgraduate

EDUC 625. Advanced Teaching of Reading (4)
Intended for both regular and special reading teachers in the elementary school. Emphasis on language and communications, remedial techniques, special grouping arrangements, enrichment reading, and latest developments in the reading field. Prerequisite: EDUC 435 or equivalent.

## EDUC 62t. Advanced Teaching of Mathematics_Elementary (3)

Emphasis on classroom texts and materials, remedial and enrichment techniques, and latest developments in the mathematical field. Intended for both regular and special mathematics teachers in the elementary school, K-9. Prerequisites: MATH 100 or 600 and EDUC 428 or equivalent.

EDU'C 678. Seminar: Teaching in the Modern Secondary School (3)
Examination of the basic theories and general principles underlying modern practices in secondary schools. Includes review of pertinent research studies. Areas of concentration include: organizational structure, curriculum planning, instructional materials, counseling and guidance, and evaluation. The topics to be dealt with will be selected from the foregoing and will change with each offering of the course; therefore, may be repeated for a total of 9 units. Open to experienced teachers; and to students enrolled in EDUC 673, with approval of the instructor.

## EDUC 685. Seminar for Supervising Teachers-Elementary (3)

Seminar for regularly credentialed elementary personnel who have demonstrated professional competence and are interested in supervising student teachers of the College. May be repeated for a total of 6 units. Prerequisites: Recommendation from district superintendent's office and consent of the instructor.

## Education

EDUC 686. Seminar for Supervising Teachers-Secondary (3)
Seminar for regularly credentialed secondary personnel of proven professional competence interested in preparing for the supervision of student teachers of the College. May be repeated for a total of 6 units. Prerequisites: Recommendation from district superintendent's office and consent of instructor.

## educ 694. Field Work

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

## School Supervision and Administration (3-6)

Concurrent enrollment in EDUC 683 required. Prerequisite: Consent of credential adviser.

## Counseling and Pupil Personnel Services (3-6)

Prior or concurrent enrollment in EDUC 535 and consent of credential adviser.

## EDUC 698. Individual Study (1-5)

For qualified graduate students in need of advanced or specialized study. Requests for individual study must be presented to the Chairman of Education Department six weeks prior to registration. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## INTERNSHIP PROGRAMS <br> Professional Postgraduate

EDUC 611. Internship Teaching in the Secondary School I (4)
Internship teaching in public secondary school under joint district-college supervision. Prerequisites: California Internship Teaching Certificate and concurrent enrollment in EDUC 614.

EDUC 612. Internship Teaching in the Secondary School II
Internship teaching in public secondary school under joint district-college supervision. Prerequisites: EDUC 611 and concurrent enrollment in EDUC 615.

EDUC 613. Internship Teaching in the Secondary School III (4)
Internship teaching in public secondary school under joint district-college supervision. Prerequisites: EDUC 612 and concurrent enrollment in EDUC 616.

EDUC 614. Secondary Internship Seminar 1 (5)
Initial study of the purposes, issues, curriculum and instruction in the secondary schools, including the sociological and psychological foundations of education. Analysis of problems related to teaching, the learner and learning theory. Prerequisite: California Internship Credential in Secondary Teaching, concurrent enrollment in EDUC 611.

## EDUC 615. Secondary Internship Seminar 11 (5)

Continued study of the purposes, issues, curriculum and instruction in the secondary schools, including the sociological and psychological foundations of education. Analysis of problems related to teaching, the learner and learning theory. Prerequisites: EDUC 614 and concurrent enrollment in EDUC 612.

## EDUC 616. Secondary Internship Seminar III (5)

Study of the purposes, issues, curriculum, and instruction in the secondary school, including sociological and psychological foundations of education. Analysis of problems related to teaching, the learner and learning theory. Prerequisites: EDUC 614, 615 and concurrent enrollment in EDUC 613.

## EDUC 641. Internship Teaching in Elementary School I (4 or 6)

Internship teaching in public elementary school under joint district-college supervision. P or F grade is given. Prerequisites: California Internship Teaching Certificate and concurrent enrollment in EDUC 651.

EDUC 642. Internship Teaching in Elementary School II (4 or 6)
Internship teaching in public elementary school under joint district-college supervision. P or F grade is given. Prerequisites: EDUC 641 and concurrent enrollment in EDUC 652.

EDUC 643. Internship Teaching in Elementary School III (4 or 6)
Internship teaching in public elementary school under joint district-college supervision. P or F grade is given. Prerequisites: EDUC 642 and concurrent enrollment in EDUC 653.

EDUC 644. Internship Teaching in Elementary School IV (4)
Internship teaching in public elementary school under joint district-college supervision. Includes regular problem-centered seminar. Prerequisites: California Internship Teaching Certificate and one year of satisfactory internship teaching.

EDUC 645. Internship Teaching in Elementary School V (4)
Internship teaching in public elementary school under joint district-college supervision. Includes regular problem-centered seminar. Prerequisite: EDUC 644.

## EDUC 646. Internship Teaching in Elementary School VI (4)

Internship teaching in public elementary school under joint district-college supervision. Includes regular problem-centered seminar. Prerequisite: EDUC 645.

## EDUC 651. Internship Seminar 1-Elementary (2)

Problems seminar with focus on elementary school classroom planning, organization, deportment and control, use of audio visual aids, and teaching elementary school health and physical education. P or F grade is given. Prerequisites: California Internship. Teaching Certificate and concurrent enrollment in EDUC 641.

## EDUC 652. Internship Seminar II-Elementary (2)

Problems seminar including selected topics on teaching resources, evaluation, and teaching science and social studies. P or F grade is given. Prerequisites: EDUC 651 and'conçurrent enrollment in EDUC 642.

## EDUC 653. Internship Sominar III-Elementary (2)

Seminar in elementary education curriculum with special attention to problems in teaching the communication arts, emerging curricular trends and problems, and evaluating professional growth. P or F grade is given. Prerequisites: EDUC 652 and concurrent enrollment in EDUC 643.

## GRADUATE COURSES

(See Department for Master of Arts in Education Program Advisement)

## EDUC 501. Advanced Studies in Sociology of Education

Study of social forces influencing the educative process, the curriculum, and institutional and professional roles in American public education. Prerequisite: EDUC 411, teaching experience and consent of instructor.

EDUC 502. Seminar: History of Education (3)
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 411, teaching experience and consent of the instructor.

## Education

## EDUC 503. Seminar: Comparative Education (3)

Study of representative national educational programs, emphasis on the political, social and economic determinants, and contemporary issues and trends. Prerequisite: EDUC 411, teaching experience and consent of the instructor.

## EDUC 504. Seminar: Philosophies of Education (3)

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. Prerequisites: EDUC 411, teaching experience, and consent of instructor.

## EDUC 505. Seminar: 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. Prerequisites: EDUC 412, teaching experience, and consent of instructor.

EDUC 506. Seminar: Applied Theories of Learning (3)
Analysis and evaluation of learning theories as they apply to classroom teaching. Prerequisites: EDUC 412, teaching experience, and consent of instructor.

EDUC 521. Seminar in Elementary Education (3)
Analysis and synthesis of relationship of content curricular to elementary school organization with emphasis on preparation of master's proposal. Prerequisites: Work in EDUC 525-529 series; and permission of student's graduate committee chairman.

EDUC 525. Seminar in Reading Curriculum, K-6 (3)
Analysis and evaluation of reading curriculum, K-6, through research and literature. Prerequisites: EDUC 425, 427, teaching experience and consent of graduate adviser or instructor.

## EDUC 526. Seminar in Social Studies Curriculum, K-6 (3)

Analysis and evaluation of social studies curriculum in elementary schools, K- 6 . Prerequisites: EDUC 426, teaching experience, and consent of graduate adviser or instructor.

## EDUC 527. Seminar in Language Arts Curriculum, K-6

Analysis and evaluation of language arts curriculum in elementary schools, K- 6 . Prerequisites: EDUC 425, 427, teaching experience, and consent of graduate adviser or instructor.

EDUC 528. Seminar in Mathematics Curriculum, K-6 (3)
Analysis and evaluation of mathematics curriculum in elementary schools, K- $\sigma$. Prerequisites: EDUC 428, teaching experience, and consent of graduate adviser or instructor.

## EDUC 529. Seminar in Science Curriculum, K-6 (3)

Analysis and evaluation of science curriculum in elementary schools, K-6. Prerequisites: EDUC 429, teaching experience, and consent of graduate adviser or the instructor.

## EDUC 532. Counseling and Community Resources (4)

Dynamics of relationships of family, community, and school; community-wide services, agency-school relationships; family visiting, including conferences, interviews, referrals. Required for Pupil Personnel Credential. (Formerly 632) Prerequisite: EDUC 479, SOCL 313, or consent of instructor.

EDUC 533. Case Study and Techniques (4)
Analysis of case studies; techniques and procedures used in case study; presentation of cases with critical analysis. Required for Pupil Personnel Credential. (Formerly 633) Prerequisite: Consent of instructor.
EDUC 535. Pupil Personnel Services Seminar (3)
Current practices in pupil personnel services. Organization and administration of pupil personnel services. Open to practicing personnel. (Formerly 635.) Prerequisite: Consent of instructor.
EDUC 541. Seminar in Social Studies Curriculum, 7-12 (3)
Analysis and evaluation of social studies curriculum; opportunity for depth study in selected aspects of curriculum planning and instruction. Prerequisites: EDUC 449, an appropriate teaching major or minor, teaching experience and consent of the graduate adviser or the instructor.

EDUC 542. Seminar in English Language Arts Curriculum, 7-12 (3)
Analysis and evaluation of the English language arts curriculum; opportunity for depth study in selected aspects of curriculum planning and instruction. Prerequisites: EDUC 449, an appropriate teaching major or minor, teaching experience and consent of the graduate adviser or the instructor.

## EDUC 543. Seminar in Mathematics Curriculum, 7-12 (3)

Analysis and evaluation of the mathematics curriculum; opportunity for depth study in selected aspects of curriculum planning and instruction. Prerequisites: EDUC 449, an appropriate teaching major or minor, teaching experience and consent of the graduate adviser or the instructor.
EDUC 544. Seminar in Science Curriculum, 7-12 (3)
Analysis and evaluation of the science curriculum in the secondary schools; opportunity for extensive study in selected aspects of curriculum planning and instruction. Prerequisites: EDUC 449, an appropriate teaching major or minor, teaching experience and consent of the graduate adviser or the instructor.

## EDUC 548. Seminar in Secondary Education (3)

An analysis and evaluation of curriculum and instructional policies and practices in the modern secondary school. Prerequisites: EDUC 449, and one of the following: ( 541 or 542 or 543 or 544 ) or consent of the instructor.

## EDUC 561. School Organization and Administration (3)

Study of organizational concepts and practices in the public schools; legal bases for schools; financial planning and budget systems. Analysis of administrative theory. Prerequisite: Teaching experience and/or consent of the instructor.

## EDUC 562. School Supervision (3)

Techniques and practices used in school supervision; selection, placement and evaluation of school personnel; analysis of personnel administration.

## EDUC 563. Educational Leadership (3)

Analysis and practices of leadership skills in education; study of the principal in the school; (students will emphasize that phase of the school system appropriate to their professional goals). Prerequisite: EDUC 561.

## EDUC 564. Curriculum Planning and Dovelopment (3)

Analysis of models in curriculum development; systematic planning for curriculum improvement; behavioral objectives. Prerequisite: EDUC 561.

## EDUC 575. Seminar: Tests, Measurement and Evaluation (3)

Construction of tests for classroom use, selection and use of standardized tests, statistical measurement in education, evaluation of progress. New statewide testing program. (Formerly 675) Prerequisites: EDUC 411 and 412.

## Education

## EDUC 576. Exceptional Children and Youth (4)

Physical, intellectual, social, and emotional deviations among children and youth; community resources; educational adjustments. (Formerly 676) Prerequisite: Consent of instructor.

## EDUC 577. Seminar: Counseling and Guidance (3)

Introduction to counseling and guidance; theory and techniques. (Formerly 677) Prerequisites: EDUC 411, 412, and consent of credential adviser.

## EDUC 578. Advanced Counseling (4)

Counseling practices including commonly-used methods of psychotherapy. Practice in techniques of counseling. See PSYC 578. (Formerly 631) Prerequisite: EDUC 579.

## EDUC 579. Counseling Theory

(4)Consideration of the major theories of. counseling. Demonstrations, and reviews of current literature. (Formerly EDUC 477) Same as PSYC 379. Prerequisite: PSYC 332 or 432; consent of instructor.

## EDUC 580. Legal Aspects of Education (3)

Legal principles related to education as defined by laws and judicial interpretations, with special reference to the Education Code of California. (Formerly 680) Prerequisite: Consent of instructor.

## EDUC 581. Educational and Oceupational Information (4)

Sources of occupational information; community and nationwide surveys; job analyses; procedures for relating vocational and self-information. Emphasis on meeting needs of school counselors. (Formerly 681) Prerequisite: Consent of instructor.

## EDUC 532. School Finance (3)

Federal, state and local financing of public education; budgeting, accounting, auditing, purchase and management of school supplies. (Formerly 669) Prerequisite: EDUC 561.

## EDUC 583. School Supervision and Administration Seminar (3)

Case study analysis of practical problems in school administration and supervision. Open to practicing principals, supervisors, and consultants. (Formerly 683)

## EDUC 587. Seminar in Now Developments in Education (3)

New developments in elementary and secondary education: philosophical basis, organizational structure, curriculum innovation, instructional materials, methodology, evaluation. Open to practicing teachers, principals, supervisors, and consultants. (Formerly EDUC 687) Prerequisire: Consent of instructor.

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 may be repeated for credit.

## EDUC 598. Individual Study (1-5)

For classified graduate students in need of advanced and specialized study related to a thesis. Prerequisite: Approval of student's graduate committee and consent of instructor. May be repeated for a total of nine units.

## EDUC 599. Thesis or Project (3)

This enrollment involves individual consultation in the preparation of a master's thesis or project. Prerequisite: Approval of student's graduate committee and consent of instructor. May be repeated for a total of six units.

## English

Douglas H. Taylor, Ph.D., Associate Professor, Chairman<br>Lawrence D. Berkoben, Ph.D., Associate Professor<br>Joseph Brewer, Ph.D., Associate Professor<br>James P. Jensen, Ph.D., Associate Professor<br>Lola V. Johnson, M.A., Associate Professor<br>Richard Corum, M.A., Assistant Professor<br>T. Peter Finley, M.A., Assistant Professor<br>Arnold L. Goldman, M.A., Assistant Professor<br>Michael Klein, M.A., Assistant Professor<br>Keith A. Tandy, M.A., Assistant Professor<br>Jack W. Williams, M.A., Assistant Professor

The Department of English offers the degrees, Bachelor of Arts, and Master of Arts, English. 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 English fulfill college-wide needs regardless of the student's major, they also provide preparation for various professions. Certain subjects are indispensable for a proper grounding in English, but beyond these the student encounters a wide selection of courses in planning a program.

## REQUIREMENT FOR BACHELOR OF ARTS, ENGLISH

English majors are to:

1. Complete the requirements for the Bachelor of Arts Degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 48 upper division units.
4. Complete a minor to be selected in consultation with the major adviser or complete 28 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 Department, and should be demonstrably relevant to the student's major program.
5. Consult with the major adviser during each advising period concerning requirements, changes in curriculum, waivers, etc.

## English

## Prerequisites to the Major

ENGL 100, 200. Freshrnan Composition and Sophomore Composition, 8 units ENGL 201; 202 or 204. Introduction to Literature I; II or IV, 8 units
The Major Units
ENGL 300. Junior Composition ..... 4
Two courses from the following sequence:
ENGL 311, 312, 313, 314. English Literature I-II-III-IV ..... 8
Two courses, one in each of the literary periods omitted from the 311, 312,313, 314 sequence above:
ENGL 408, 410. Medieval Literature and Renaissance Literature
ENGL 413, 414. Seventeenth Century Literature I-II
ENGL 315, 316. Eighteenth Century Literature I-II
ENGL 331, 332, 333. Literature of the Romantic Period I-II-III ENGL 335, 336,337. Literature of the Victorian Period I-II-III ..... 8
One course in one of the following sequences as approved by majoradviser:
ENGL 405, 406. Chaucer I-II4
ENGL 416, 417. Milton I-II
Two courses in the following sequence as aproved by major adviser:
ENGL 421, 422, 423. Shakespeare I-II-III ..... 8
ENGL 494. Senior Seminar in English ..... 4
Upper division courses in English as approved by major adviser ..... 12
DEGREE MINOR IN ENGLISH
(28 units, to include at least 16 upper division units)

## Lowor Division

ENGL 100, 200. Freshman Composition and Sophomore Composition, 8 units ENGL 201. Introduction to Literature I, 4 units.

## Upper Division

One of the following courses as approved by minor adviser, 4 units ENGL 311, 312, 313, 314. English Literature I-IV
One of the following courses as approved by minor adviser, 4 units ENGL 421, 422, 423. Shakespeare I-III
Two courses as approved by minor adviser, 8 units

## TEACHING CREDENTIALS

Majors in English for elementary and secondary credentials must fulfill the following requirements:

1. Degree major in English.
2. Complete ENGL 300 by course or examination.
3. Secondary credential candidates must complete 9 units in courses in English as postbaccalaureate work and receive approval of English Department as to subject matter competence.
4. Complete requirements for credential as presented by the Education Department.
5. Elementary credential candidates may not waive the academic minor.

## Inglish

## 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. Each student admitted to the program will be assigned an adviser with whom he will consult in planning his course of study. The student may select either the Thesis or the Non-Thesis Programs described below.

## Prerequisites for Admission to the Goneral Program

1. BA degree with a major or minor in English.
2. Undergraduate GPA of 3.0 in English courses.
3. Satisfactory performance on Graduate Record Examinations.

Units
Requirements for the Degree
I. Completion of at least 45 units to include the following:
A. English 500. Seminar: Graduate Studies in English 5

B. Minimum of 30 units to be completed from among seminars in the
following subject-areas *:

English 510. Seminar in English Literature to 1550

English 520. Seminar in English Literature 1550-1660

English 530. Seminar in English Literature 1660-1800

English 540. Seminar in English Literature 1800-1900

English 550. Seminar in American Literature

English 560. Seminar in Twentieth Century Literature

English 570. Seminar in Literary Criticism

No student can apply toward his degree more than ten units com
pleted in graduate courses taken in any single subject-area.

No student may apply toward his degree more than five units of
credit completed in individual study
30
C. A minimum of ten units to be chosen from among the following:

1. Thesis
2. Upper division courses in English selected in consultation with the student's graduate adviser

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\begin{equation*}
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\end{equation*}
$$

Total
Total ..... 45
D. Comprehensive examination:

Candidates must pass a written comprehensive examination covering major figures in English and American Literature.
E. Maintenance of continuous registration except for summer sessions.
F. Reading knowledge of an appropriate foreign language as determined by the Department of English.

## Requiraments for the Thesis Program:

1. A minimum of 40 units of approved graduate credit.
2. A minimum of 5 units of credit given for an approved thesis.
3. A one-hour oral examination upon the thesis.
4. A three-hour written comprehensive examination.

## Requirements for the Non-Thesis Progrum:

1. A minimum of 45 units of graduate credit.
2. The acceptance by the student's graduate committee of two seminar papers written for courses in two different subject-areas.
[^20]
## English

3. A four-hour written comprehensive examination, on major figures in English and American literature.
4. A one-hour oral examiantion covering the subject areas of the candidate's seminar papers and his written examination.

## COURSE DESCRIPTIONS

## Lower Division

ENGL 100. Freshman Composition (4)
Directed writing based upon analytical reading and study of essays and short fiction. Required for General Education.

ENGL 200. Sophomore Composition (4)
Directed writing based upon analytical reading and study of poetry, drama, and fiction. Prerequisites: ENGL 100 and sophomore standing. Required for General Education.

ENGL 201. Introduction to Literature I (4)
Basic theories, approaches, techniques, and terminology in the study of literature with special emphasis on poetry. (Satisfies G. E. requirement for majors.)

## ENGL 202. Introduction to Literature II (4)

A continuation of ENGL 201; special emphasis on fiction. Prerequisites: ENGL 201 or consent of major adviser. (Satisfies G. E. requirement for majors.)

## ENGL 203. Introduction to Drama (4)

Basic theories, approaches, techniques, and terminology in the study of drama.

## ENGL 204. Literary Eackgrounds (Topic to be specified in Class Schedule) (4)

A study of classical, mythological, Biblical literature, and other backgrounds to Western literature.

## ENGL 215. Perspective in Literature (4)

Readings in various literary masterworks with emphasis upon their contemporary relevance. (Satisfies G. E. requirements for non-majors.)

## UPPER DIVISION

ENGL 300. Junior Composition (4)
Advanced expository writing on various subjects to be announced in the quarterly class schedules. Prerequisite: ENGL 200 or equivalent.

ENGL 303. The Modern Short Story
Reading and analysis of modern short stories.
ENGL 304. Creative Writing Workshop
(4)

Practice in the methods and techniques of writing poetry, fiction, and other literary forms. Prerequisites: ENGL 201 and 202, or consent of the instructor. May be repeated for 2 maximum of 12 units.

## ENGL 311. English Literature I (4)

Beginnings to Spenser: Beowulf, Chaucer, Spenser, et al. Prerequisite: ENGL 201 or equivalent.

## ENGL 312. English Literature il ( $\alpha$ )

Spenser-1660: Shakespeare, Donne, Milton et al. Prerequisite: ENGL 201 or equivalent.

ENGL 313. English Literature III (4)
1660-1800: Dryden, Pope, Swift, Johnson, et al. Prerequisite: ENGL 201 or equivalent.

## ENGL 314. English Literature IV (4)

1800 to the present: Wordsworth, Tennyson, Arnold, Yeats, et al. Prerequisite: ENGL 201 or equivalent.

## ENGL 315. Eighteenth Century Litarafure I (4)

Literature of the Restoration: emphasis on Dryden, Pope, and Swift. Prerequisite: ENGL 201 or equivalent.

## ENGL 316. Eighteonth Century Literature II (4)

Literarure of the mid and late eighteenth century; emphasis on Johnson, Boswell, Goldsmith, et al. Prerequisite: ENGL 201 or equivalent.

## ENGL 32F: English Novel I (4)

-Defoe, Richardson, Fielding, Sterne, and Austen.

## ENGL 322. English Novel II (4)

Dìckens, Tháckeray, George Eliot, Hardy, and Conrad.
ENGL 331. Literature of the Romantic Period 1 (4)
Coleridge, Wordsworth, and Blake. (Formerly 319) Prerequisite: ENGL 201 or equivalent.

## ENGL 332. Literature of the Romantic Period II (4)

Byron, Shelley, and Keats. (Formerly 319) Prerequisite: ENGL 201 or equivalent.
ENGL 335. Literature of the Vittorian Period I (4)
Carlyle, Tennyson, Browning, Arnold. (Formerly 320) Prerequisite: ENGL 201 or equivalent.

ENGL 336. Literature of the Victorian Period II (4)
Pre-Raphaelites, Swinburne, et al. (Formerly 320) Prerequisite: ENGL 201 or equivalent.

## ENGL 344. Early Nineteonth Century American Literature (4)

Hawthorne, Emerson, Thoreau, and Melville. Prerequisite: ENGL 201 or equivalent.
ENGL 345. Late Nineteenth Century American Literature (4)
Whitman, Dickinson, James, and Twain. Prerequisite: ENGL 201 or equivalent.

## ENGL 361. Advanced Composition-Usage (4)

Grammar, composition, and rhetorical analysis. (Formerly 260) Prerequisites: ENGL 100 and 200 or equivalent and junior standing.

## ENGL 362. History of Druma ! (4)

A study of dramatic literature from the beginnings to 1660 with emphasis on Elizabethan and Jacobean drama. (Formerly 420)

## ENGL 363. History of Drama ll (4)

A study of dramatic literature of the Restoration, eighteenth century, and nineteenth century to Wilde, with some attention to major continental figures.

## ENGL 364. History of Drama III (4)

A study of dramatic literature from Oscar Wilde through the present with some attention to major Continental and American dramatists. (Formerly 483)

## English

## ENGL 370. Minority Literafure (4)

Literature of minority groups: e.g., Black, Jewish, Mexican-American. (Authors to be announced in quarterly class schedules.)

ENGL 401. History of the English Language (4)
A study of the English language from its earliest origins to its present form. Prerequisite: ENGL 201 or equivalent.

ENGL 402. Introduction to Linguistics (4)
Modern approaches and methods in the study of language. Prerequisites: ENGL 100 and 200 or equivalent.

ENGL 405. Chaucer I (4)
Troilus and Criseyde and the Minor Poems. Prerequisite: ENGL 201 or equivalent.

ENGL 406. Chaucer II (4)
The Canterbury Tales. Prerequisite: ENGL 201 or equivalent.
ENGL 408. Medieval Literature (4)
Medieval literature, exclusive of Chaucer: Piers Plowman, Sir Gawain and the Green Knight, The Pearl. Prerequisite: ENGL 201 or equivalent.

ENGL 410. Renaissance Liferature (4)
Sidney, Spenser, Wyatt, and Surrey. Prerequisite: ENGL 201 or equivalent.
ENGL 413. Seventeenth Century Literature I (4)
Donne, Jonson, Webster, and Herbert. (Formerly 435) Prerequisite: ENGL 201 or equivalent.

ENGL 414. Seventeenth Contury Literature II (4)
Marvell, Vaughn, and Burton. (Formerly 413) Prerequisite: ENGL 201 or equivalent.

## ENGL 416. Milton I (4)

Minor poetry and prose. Prerequisite: ENGL 201 or equivalent.
ENGL 417. Milton II (4)
Major poetry and selected prose. (Formerly 415 and 435) Prerequisite: ENGL 201 or equivalent.

ENG1 420. Elizabethan and Jacobean Drama (4)
Non-Shakespearean drama. Prerequisite: ENGL 201 or equivalent.
ENGL 421. Shakespeare I (4)
Introduction to plays of various types.
ENGL 422. Shakespeare II (4)
Comedies and histories. (Formerly 421) Prerequisite: ENGL 421 or consent of instructor.

ENGL 423. ' Shakespeare III (A)
Tragedies and romances. (Formerly 422) Prerequisite: ENGL 421 or consent of instructor.

## ENGL 424. History of the Cinema

Study of the cinema and its dynamics and investigation of its impact upon contemporary culture. (Same as DRAM 424) Prerequisite: Consent of instructor.

ENGL. 439. Modern British Literature I (4)
1900 to 1930; Yeats, Joyce, Lawrence, Forster, et al. (Formerly 324)
ENGL 440. Módern British Literature II (4)
Since 1930; Huxley, Green, Greene, Waugh, et al.
ENGL 441. Contemporary Liferature (4).
Recent poetry, fiction, and criticism, with emphasis upon works relevant to the current literary and cultural situation.

## ENGL 442. Twentiefh Century American Literature (Authors to be specified in Class Schedule) (4)

Intensified study of selected American authors of the period.
ENGL 444. American Novel 1 (4)
Hawthorne, Melville, Twain, James. (Formerly 341)
ENGL 445: American Novel II (4)
Fitżgerald, Hemingway, Faulkner, Steinbeck. (Formerly 342)
ENGL 447. American Literature to 1800 (4)
Literature of the colonies and the new nation. Prerequisite: ENGL 201 or equivalent.

## ENGL A50. Literary Interpretation (4)

Approaches and methods in the study of literature. Prerequisite: ENGL 201 or equivalent.
ENGL 453. Curriculum and Instruction: English (4)
Contemporary trends in English education. Curriculum development, selection and organization of materials and procedures for the secondary school. Field observations. Prerequisites: Admission to student teaching and consent of credential adviser. Same as EDUC 453.

ENGL 480. Early European Litorature (4)
Selected reading in translation from European literature between Petrarch and Zola.

ENGL 481. Modern European Literafuro (4)
Gide, Mann, Kafka, Sartre, Camus.
ENGL 494. Senior Seminar in English (Topic to be specified in Class Schedule) (4)
Intensified study of a major figure, area, or topic in English. Prerequisite: Senior standing or consent of instructor. (Formerly 496)

## ENGL 495. Selected Topics in English (Topies to be specified in Class Schedule) (1-5)

Development of selected topics in English. May be repeated for credit. Prerequisite: Consent of instructor.
ENGL 498. Individual Study (1-5)
For students capable of independent work and in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## Graduthe

General Prerequisites: Normally, an undergraduate major or minor in English is expected for admission to graduate seminars. Consultation with an English graduate adviser and bis approval is required for all graduate credit courses.

## English

## ENGL 500. Seminar: Graduate Studies in Énglish (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: English Literature to 1550 (5)
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 10 units.

## ENGL 520. Seminar: English Literature 1550-1660 (5)

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 10 units.

ENGL 530. Seminar: English Literature 1600-1800
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 10 units.

ENGL 540. Seminar: Nineteenth Century English Literature (5)
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 10 units.

ENGL 550. Seminar: American Literature (5)
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 10 units.

ENGL 560. Seminar: Iwentieth Century Literature (5)
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 10 units.

ENGL 570. Seminar: Literary Criticism (5)
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 10 units.

## ENGL 595. Selected Topics in English (Topics to be spocifiod in Class Schedule) (1-5)

Development of selected topics in English. May be repeated for credit. Prerequisite: Consent of instructor.

ENGL 598. Individual Study (1-5)
For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

ENGL 599. Thesis (3-5)

## Foreign Languages

Laura T. Tarquinio, Ph.D., Associate Professor, Coordinator
Lowell G. Richardson, Ph.D., Associate Professor
Gerhard Mack, M.A., Assistant Professor
George H. Yu, Ph.D., Assistant Professor
The Department of English offers the Bachelor of Arts, French, and the Bachelor of Arts, Spanish, as well as minors in French and Spanish.

The program in foreign languages, French and Spanish, is designed to meet the needs of students who plan to teach foreign languages and literature, and to serve students who need foreign languages to support an academic discipline or profession. A program in German is being developed, and lower division Chinese has been offered experimentally. Additional languages will be added when there is sufficient demand.
Upper division courses are conducted primarily in the foreign tongue. Use of the language laboratory permits the student to improve his conversational skills. Practice in reading and writing is given on an individual basis and in accord with the needs of the student.

## REQUIREMENTS FOR THE BACHELOR OF ARTS, FRENCH, AND BACHELOR OF ARTS, SPANISH

French and Spanish 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 36 upper division units.
4. Completion of minor is not required but is strongly recommended for secondary candidates.
dEGRE MAJOR IN SPANISH
Prerequisites to the Major
SPAN 101, 102, 103. Elementary Spanish I-III, 12 units *
SPAN 201, 202, 203. Intermediate Spanish I-III, 12 units *

## The Major

Units
Required course in supporting field:
SPCH 467. Structural Linguistics and Phonology, 4 units
Required courses in major field:

SPAN 312. Advanced Style and Syntax --_
SPAN 341. Literature of Spain I -a-_ 4
SPAN 342. Literature of Spain II _—_ 4
SPAN 468. Spanish Phonetics -- 4
One course in Spanish American literature or civilization as approved by
major adviser
Elective courses in field as approved by major adviser -_ 12
Total

[^21]
## DEGRER MINOR IN SPANISH

(36 units, to include at least 12 units in upper division with minimum of 22 college units)

## Lewar Division

SPAN 101, 102, 103. Elementary Spanish I-III, 12 units *
SPAN 201, 202, 203. Intermediate Spanish I-III, 12 units *

## Upper Division

SPAN 311. Composition and Conversation, 4 units
SPAN 312. Advanced Style and Syntax, 4 units
Course as approved by minor adviser, 4 units

## TEACHING CREDENTIALS $\dagger$

Majors in Spanish seeking elementary and secondary credentials must fulfill the following requirements:

1. Degree major in Spanish.
2. Secondary credential candidates must complete 9 units in courses in Spanish as postbaccalaureate work and receive approval of Foreign Languages as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## degree major in french

## Prerequisites to the Major

FREN 101, 102, 103. Elementary French I-III, 12 unirs $\dagger$ FREN 201, 202, 203. Intermediate French I-III, 12 units $\dagger$

## The Major

Required course in supporting field:
SPCH 467. Structural Linguistics and Phonology, 4 units
Required courses in major field:

## Units

FREN 311. Composition and Conversation 4

FREN 341. French Literature 1


One course in French civilization as approved by major adviser_-_-_-_ 4
Elective courses in field as approved by major adviser................................. 12
Total
DEGRER MINOR IN FRENCH
( 36 units, to include at least 12 units in upper division with minimum of 22 college units)

## Lower Division

FREN 101, 102, 103. Elementary French I-III, 12 units $\ddagger$
FREN 201, 202, 203. Intermediate French I-III, 12 units $\ddagger$

## Upper Division

FREN 311. Composition and Conversation, 4 units
FREN 312. Advanced Style and Syntax, 4 units
One of the following as approved by minor adviser, 4 units:
FREN 341. French Literature I
FREN 342. French Literature II

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## Foreign Languages

## TEACHING CREDENTIALS $\dagger$

Minors in French seeking elementary and secondary credentials must fulfill the following requirements:

1. Degree minor in French.
2. SPCH 467. Structural Linguistics and Phonology is recommended.
3. Secondary credential candidate must receive approval of the minor adviser as to subject matter competence.

## COURSE DESCRIPTIONS

## CHINESE

Lower Division
CHIN 101. Elementary Chinese I (4)
Introduction to standard Chinese by the audio-lingual method. Elements of the written language are introduced. Prerequisite: None.
CHIN 102. Elementary Chinese II (4)

Continuation of CHIN 101. Prerequisite; CHIN 101.

CHIN 103. Elementary Chinese III (4)
Continuation of CHIN 102. Prerequisite: CHIN 102.
CNIN 201. Infermediate Chinese I (4)
Second year Chinese with continued emphasis on developing audio lingual and reading skills. Prerequisite: CHIN 103 or equivalent.

## CHIN 202. Intermediate Chinese II (4)

Continuation of CHIN 201. Prerequisite: CHIN 201 or equivalent.

## CHIN 203. Intermediate Chinese III (4)

Continuation of CHIN 202. Prerequisite: CHIN 202 or equivalent.

## FRENCH <br> Lower Division

FREN 101. Elementary French I (4)
Introduction to French language, with emphasis on audio-lingual work in language laboratory. No prerequisite.
FREN 102. Elementary French II (4)
Continuation of FREN 101. 'Prerequisite: FREN 101 or equivalent.

## FREN 103. Elementary French III <br> (4)

Continuation of FREN 102. Prerequisite: FREN`102 or equivalent.

## FREN 201. Intermediate Frençh I (4)

Continued emphasis on audio-lingual work in the language laboratory with additional assignments in reading current French periodicals and studying patterns of language structure. Prerequisite: FREN 103, or equivalent.

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## Foreign Languages

FREN 202. Intermediafe French II (4)
Continuation of FREN 201. Prerequisite: FREN 201, or equivalent.
FREN 203. Intermediate French ill (4)
Continuation of FREN 202. Prerequisite: FREN 202, or equivalent.

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Upper Division
FREN 311. Composition and Conversafion (4)
Advanced French composition, development of style, and expression, readings and oral discussions in French of various facets of French culture. Prerequisite: 2 years of college level French or equivalent.
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## FREN 312. Advanced Style and Syntax (4)

Intensive review of grammar, writing and speaking of current idiomatic French. Prerequisite: Two years of college level French or equivalent.

FREN 341. French Literature I (4)
Masterpieces of French prose and lyric poetry of the Middle Ages and Renaissance. Emphasis on development of French language as viewed through literature of the Classical Age. (Formerly 442) Prerequisite: Two years of lower division French or consent of instructor.

## FREN 342. French Literafure II (4)

Literature of philosophical and romantic movements in France through novels, poetry, and drama. (Formerly 444) Prerequisite: Two years of lower division French or consent of instructor.

## FREN 411. Advanced Composition (4)

Intensive practice at advanced level in written and spoken French. Prerequisite: FREN 311.

## FREN 421. French Poefry and Drama of Nineteenth Century (4)

Main currents and major works of the French poetry and drama of the nineteenth century. Poetry from Lamartine to Malarme and theater from Mussett to Maeterlinck. Prerequisite: FREN 342 or consent of instructor.

## FREN 422. French Noval of the Nineteanth Century (4)

Decisive current and major works of the French novel of the nineteenth century. The impact of Hugo, Balzac, Stendahl, Flaubert, Zola, and Maupassant on Western thought. Contributions of the minor novelists. Prerequisites: FREN 342 or consent of instructor.

## FREN 431. Twentieth Century Prose and Poetry (4)

Modern French novel from Proust to Sarraute and poetry from Appollinaire to Yves Bonnefoy. Study of trends and novelists and poets of today. Prerequisite: FREN 342 or consent of instructor.

## FREN 432. Twontieth Century French Dramg (4)

Modern French theater from Claudel to Ionesco. Study of trends and playwrights of today. Prerequisite: FREN 342 or consent of instructor.

## FREN 441. French Classical Literature (4)

A study of the literary and intellectual developments in France during the seventeenth century. An analysis of the development of major genres. Prerequisite: FREN 341 or consent of instructor.

FREN 442. Literature of the Age of Enlightenment (4)
French literature of PAge de Raison from the Revocation of the Edict of Nantes to the French Revolution, stressing Voltaire, Rousseau, Montesquieu, and Diderot. (Formerly 451). Prerequisites: FREN 341 and 342 or consent of instructor.

## FREN 461. French Civilization I

Cultural development of France from ancient Gaul to the Revolution of 1789. Prerequisite: FREN 203 or consent of instructor.

## FREN 462. French Civilization II (4)

Cultural development of France from the Revolution of 1789 to the present day. Prerequisite: FREN 203 or consent of instructor.

## FREN 468. Fronch Phoneties (4)

A study of the production and representation of the sounds of modern French, including work on dialectical differences and comparison with English. Prerequisite: Consent of instructor.

## FREN 495. Selected Topics in French (Topics to be specified in Class Schedele) (1-5)

Development of a selected topic in French. Topics vary each term, thus may be repeated for credit. Prerequisite: Consent of instructor.

FREN 498. Individual Study (1-5)
For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## german <br> Lower Division

GERM 101. Eliementary German ! (4)
Beginning German, audio-lingual approach. Prerequisite: None.

## GERM 102. Elementary German II (4).

First year German. Continuation of GERM 101. Prerequisite: GERM 101 or equivalent.
CERM 103. Elementary German IH (4)
First year German. Continuation of GERM 102. Prerequisite: GERM 102 or equivalent.
GERM 201. Intermediato German I (4)
Second year German with intensified work in grammar and composition, reading assignments, and improvement of conversational skills. Prerequisite: One year of college level German or the equivalent.
GERM 202. Intermediate German II (4)
Continuation of GERM 201. Prerequisite: GERM 201 or equivalent.
GERM 203. Intermediate German III (4)
Continuation of GERM 202. Prerequisite: GERM 202 or equivalent.
GERM 310. Advanced Style and Syntax (4)
Intensive review of grammar, writing and speaking of current idiomatic German. Prerequisite: Two years of college German or equivalent.

## GERM 341. Survoy of German Literature I (4)

Readings in the early period of German Literature from the old Saxon through the Baroque. Prerequisite: Two years of college German or equivalent.

## Foreign Languages

## GERM 342. Survey of German Literature II (4)

Continuation of Germ 341. From the neo-classic through the Romantic and Modern Periods. Prerequisite: Two years of college German or equivalent.

## GERM 498. Individual Study (1-5)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## SPANLSH <br> Lower Division

SPAN 101. Elementary Spanish I (4)
Beginning Spanish, audio-lingual approach. Prerequisite: None.
SPAN 102. Elementary Spanish II (4)
First year Spanish. Continuation of SPAN 101. Prerequisite: SPAN 101 or equivalent.
SPAN 103. Elementary Spanish III (4)
First year Spanish. Continuation of SPAN 102. Prerequisite: SPAN 102 or equivalent.

SPAN 20́1. Intermediate Spanish I (4)
Second year Spanish, with emphasis on audio-lingual work in the language laboratory. Also includes review of language structure patterns and reading assignments. Prerequisite: One year of college level Spanish or the equivalent.

SPAN 202. Infermediate Spanish il (4)
Continuation of SPAN 201. Prerequisite: SPAN 201 or equivalent.
SPAN 203. Insermediate Spanish III (4)
Continuation of SPAN 202. Prerequisite: SPAN 202 or equivalent.

## Upper Division

SPAN゙ 311. Composition and Conversation (4)
Intensive practice in idiomatic written and oral expression. Prerequisite: Two years of lower division Spanish or equivalent.

## SPAN 312. Advanced Style and Syntax (4)

Consistencies of the language, development of proper style and expression, selected readings. Prerequisite: two years of lower division Spanish or consent of instructor.

SPAN 341. Literature of Spain 1
Early period through the Golden Age. Lecture and discussion. (Formerly 441) Prerequisite: two years of lower division Spanish or consent of instructor.

## SPAN 342. Literature of Spain II (4)

From 1750 to the present. Lecture and discussion. (Formerly 442) Prerequisite: Two years of college Spanish or consent of instructor.

SPAN 343. Spanish-American Literature I (4)
From the beginnings to 1880 . (Formerly 443) Prerequisite: Two years of college Spanish or consent of instructor.

## SPAN 344. Spanish-American Literature II (4)

From 1880 to the present. (Formerly 444) Prerequisite: Two years of college Spanish or consent of instructor.

## Foreign Languages

## SPAN 411. Advanced Composition (4)

Intensive practice at advanced level in written and spoken Spanish. Prerequisite: SPAN 311.

SPAN 421. Mexican Literature (4)
Authors of Mexico and their works from Cortes to the contemporary period. Prerequisite: Consent of instructor.

## SPAN 427. Golden Age Literature (4)

Intensive study of the literature of Spain of the sixteenth and seventeenth centuries. Prerequisite: SPAN 341.

## SPAN 431. Contemporary Literature of Spain (4)

Peninsular literature from 1898 to 1960. Prerequisite: SPAN 341 and 342.
SPAN 461. Spanish-American Civilization I (4)
Growth of Spanish-American institutions and culture. Prerequisite: Consent of instructor.

## SPAN 462. Spanish-American Civilization II (4)

Continuation of SPAN 461. Prerequisite: Consent of instructor.

## SPAN 463. Spanish Phonetics (4)

A scientific study of the production and representation of the sounds of modern Spanish, including work on area differences and comparison with English. Prerequisite: Consent of instructor.

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

Development of a selected topic in Spanish. Topics vary each term, thus may be repeated for credit. Prerequisite: Consent of instructor.

SPAN 498. Individual Study (1-5)
For students capable of independent work and in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## SPAN 595. Selected Topies in Spanish (Topies to he speciflied in Class Schedule) (1-5)

Development of a selected topic in Spanish. Topics vary each term, thus may be repeated for credit. Prerequisite: Consent of instructor.

## Graduate

SPAN 598. Individual Study (1-5)
For the graduate student with major in Spanish or who is working for a teaching credential in Spanish. Advanced work in any area of Spanish language, literature or civilization. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## Geography

Alfred W. Bowers, Ph.D., Professor, Chairman<br>Department of Anthropology/Sociology<br>Melvin H. Aamodr, Ph.D., Associate Professor<br>Ira L. Fogel, M.A., Assistant Professor<br>Leon S. Pitman, M.A., Assistant Professor

The Department of Anthropology/Sociology offers courses in geography as supportive materials for the Social Sciences.

## REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE, SOCIAL SCIENCES

See Social Sciences, Requirements for Bachelor of Arts.

## TEACHING CREDENTIALS

Major in social sciences for elementary and secondary credentials, see Social Sciences.

## COURSE DESCRIPTIONS

## Lower Division

## GEOG 200. Introduction to Geography (4)

Introductory study of the traditions, concepts, tools and methods of modern geography, survey and analysis with focus on analysis of selected problems.

## GEOG 201. Principles of Physical Geography (4)

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.

## GEOG 202. Principles of Cultural Geography (4)

Study of the cultural elements of geography, including the major culture regions -their areas, population, land-use and the like, and their correlation with the physical elements.

## GEOG 240. World Regional Geography I (4)

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.
geOG 241. World Regional Geography II (4)
A survey of the major culture regions of the New World including North America, South America, and the Pacific, with emphasis on environment and contemporary economic and cultural conditions.

## Upper Division

## GEOG 310. Climatology (4)

The elements and controls of weather and climate, and an analysis of the various climatic regions.

GEOG 330. Economic Geography (4)
Study of location, extraction, production, consumption, and exchange of raw materials, manufactured products and services; development, form and function of economic regions.

EEOG 335. Urban Geography
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.

GEOG 351. Geography of North America (4)

Spatial pattern, analysis and relations of environments in North America with emphasis on their evolvement, influences of human-natural environmental factors, problems of regional inequalities. Prerequisite: Any 200 level geography course or consent of instructor.

GEOG 352. Geography of Latin America (4)
A topical and regional analysis of the physical, economic, and cultural characteristics of Mexico, Central and South America. Prerequisite: Any 200 level geography course or consent of instructor.

## GEOG 355. Geography of Europe (4)

The regional geography of Europe, exclusive of the Soviet Union, with emphasis on the historical development of present-day patterns. Prerequisite: Any 200 level geography course or consent of instructor.

## GEOG 357. Geography of the Soviet Union and its Satellites (4)

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 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; the application of cartographic portrayal in aerial photo analysis. Prerequisite: Two geography courses or consent of instructor.

GEOG 402. Human Ecology (4)
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.

## GEOO 451. Geography of California (4)

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 20 level course or consent of instructor.

## GEOG 495. Selected Topies in Geography (Topic to be specified in the Class Schedule) (1-5)

Topics vary each term, thus may be repeated for credit. Prerequisire: Consent of instructor.

## GEOG 498. Individual Study (1-5)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## History

Curtis R. Grant, Ph.D., Associate Professor, Chairman John E. Caswell, Ph.D., Professor<br>J. W. Smurr, Ph.D., Professor<br>David Bentheim Stenzel, Ph.D., Professor<br>John P. Rasmussen, Ph.D., Professor<br>Britten Dean, Ph.D., Associate Professor<br>Franklin B. Holder, Ph.D., Associate Professor<br>Phebe Ann Marr, Ph.D., Associate Professor<br>Robert R. Smith, Ph.D., Assistant Professor<br>Ronald Jay VanderMolen, Ph.D., Assistant Professor<br>Austin Metumara Ahanotu, Ph.D., Assistant Professor John R. Kern, M.A., Assistant Professor

History, a dialogue between the present and the past about the future, 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, and Master of Arts, History. The College also offers the degree Bachelor of Arts, Social Sciences for those seeking a General Elementary 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 36 upper division units.
4. Complete 36 units of course work in addition to the General Education requirements upon advisement from liberal arts fields outside of history, which support their major program.
(For students completing a minor in Business Administration or in Physical Education this requirement is lowered to 24 units).
5. Demonstrate reading knowledge of an appropriate foreign language by satisfactory performance in a language examination as determined by the Department of History. To meet this requirement, two years of college level foreign language study or equivalent are recommended.
Prerequisites to the Major ..... UnitsRequired courses in the major field:HIST 101, 102, 103. Western Civilization I-III, 12 unitsAt least two of the following courses in non-Western History:8
HIST 251. Colonial Hispanic America
HIST 252. Hispanic American States Since Independence
HIST 280. East Asia in Traditional Times
HIST 281. East Asia in the Modern World
HIST 284. Islamic History I
HIST 285. Islamic History II
HIST 286. Africa Before 1800
HIST 287. Africa since 1800
Tho MajorCompletion of courses in each of the following groups as approved bymajor adviser:
Group One (Two courses required)
HIST 361. Colonial America
HIST 362. Ante-Bellum America
HIST 363. America After Civil War
HIST 364. Contemporary America
HIST 368. Westward Movement
HIST 470. American Diplomatic History
HIST 474. American Constitutional History
HIST 478. American Intellectual and Social History I
HIST 479. American Intellectual and Social History II ..... 8
Group Two (Two courses required)
HIST 311. Hellenic Civilization I
HIST 312. Hellenic Civilization II
HIST 314. Medieval Europe I
HIST 315. Medieval Europe II
HIST 321. Europe from 1500 to 1648
HIST 322. Europe from 1648 to 1799
HIST 323. Nineteenth Century EuropeHIST 324. Twentieth Century Europe8
Group.Three (One course required)
HIST 384. Modern Middle East I
HIST 385. Modern Middle East II
HIST 386. Contemporary Africa
HIST 389. East Asian Intellectual History
HIST 403. Age of Exploration
HIST 404. Rise of European Colonial Systems 1800-1914
HIST 405. Fall of European Colonial Systems 1914-1965
HIST 452. Social Change in Contemporary Latin America
HIST 454. Northern Latin America
HIST 455. Southern Latin America
HIST 480. Modern China
HIST 484. Modern Japan
HIST 486. North Africa
HIST 487. West Africa
HIST 488. East Africa
HIST 489. South Africa ..... 4

## Hisfory

Completion of the following: Units
HIST 499. Senior Thesis ..... 4
Electives on advisement ..... 12
Total ..... 36
DEGREE AINOR IN HISTORY
(24 units, to include at least 16 units in upper division)

The courses for the degree minor in history are selected in consultation with and approved by the minor adviser.

## TEACHING CREDENTIALS

Major in history for elementary and secondary credentials must fulfill the following requirements:

1. Degree major in history.
2. Secondary credential candidate must complete 9 units in courses in history as postbaccalaureate work and receive approval of History Department as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## 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. The student may elect either the Thesis Plan (A) or the Colloquia Plan (B) described below.

## Prerequisites for Admission to the Program

1. Thirty-six quarter units of upper division history to include HIST 499 Senior Thesis, or equivalent.
2. A grade point average of 3.0 in the undergraduate major.
3. Satisfactory performance in the Graduate Record Examinations, both general aptirude and history.
4. Reading knowledge of an appropriate foreign language as determined by the Department of History.

## Requirements for the Degree

I. Completion of at least 45 units to include the following:

Option A. Thesis Plan Units
HIST 593. The History of Historical Writing. --_-................................ 5

Electives selected from the following upon advisement (to include at least one seminar and one colloquium):

HIST 523. Colloquium in Modern European History
HIST 524. Seminar in Modern European History
HIST 563. Colloquium in American History
HIST 564. Seminar in American History
HIST 598. Individual Study4-9

Additional electives selected from courses listed under II below to complete at least 45 units for the degree.

Approval of the thesis and recommendation for the degree by the candidate's comnittee.

> Option B. Colloguia Plan Units

HIST 593. The History of Historical Writing___ 5

At least three colloquia __________________ 15
Minimum requited in 500 level courses_-_-_-_-_-_-_-_-_-_-_-_-_ 25
Satisfactory performance on a written comprebensive examination in the candidate's chosen field, i.e. American History or European History, with emphasis on a theme or period approved by his committee. The candidare's committee evaluates the examination.
Recommendation for the degree by the candidate's committee.
II. Additional electives selected from the following upon advisement:

HIST 403. Age of Exploration, 4 units
HIST 404. Rise of European Colonial Systems 1800-1914, 4 units
HIST 405. Fall of European Colonial Systems 1914-1965, 4 units
HIST 406. Science, Technology and Society Since 1700, 4 units
HIST 408. Introduction to Comparative Civilization I, 4 units
HIST 409. Introduction to Comparative Civilization II, 4 units
HIST 420. Modern Spain, 4 units
HIST 435. Modern France, 4 units
HIST 440. Modern Germany, 4 units
HIST 442. Modern Russia, 4 units
HIST 446. Modern Britain, 4 units
HIST 450. History of Mexico, 4 units
HIST 452. Social Change in Contemporary Latin America, 4 units
HIST 454. Northern Latin America, 4 units
HIST 455. Southern Latin America, 4 units
HIST 470. American Diplomatic History, 4 units
HIST 474. American Constitational History, 4 units
HIST 476. American Religious History, 4 units
HIST 478. American Intellectual and Social History I, 4 units
HIST 479. American Intellectual and Social History II, 4 units
HIST 480. Modern China, 4 units
HIST 484. Modern Japan, 4 units
HilsT 486. North Africa, 4 units
HIST 487. West Africa, 4 units
HIST 488. East Africa, 4 units
HIST 489. South Africa, 4 units
HIST 523. Colloquium in Modern Earopean History, 5 units
HIST 524. Seminar in Modern European History, 5 units
HIST 563. Colloquium in American History, 5 units
HIST 564. Seminar in American History, 5 units
HIST 598. Individual Study, 3-5 units
Additional Electives

## III. Additional Requirements

Satisfactory completion of an oral examination covering course work undertaken in the M.A. program.
Of the 45 units required for the degree, at least 36 shall be in residence. At least 23 of these units in residence must be completed after admission to classified graduate standing.
Students are to maintain continuous registration except for summer sessions.

## History

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 quarter, departmental review of the candidate's eligibility is mandatory. Withdrawal of candidacy may result.

## COURSE DESCRIPTIONS

## Lower Division

## H1ST 101. Western Civilization 1 (4)

Examination of man's past efforts to organize his society, to understand the nature of his universe, and to interpret the riddle of human destiny. Intellectual, political, and social history from early civilizations to 800 A.D.

## HIST 102. Western Civilization II (4)

Continuation of HIST 101; from Charlemagne to the Enlightenment. Prerequisite: Consent of instructor.

## HIST 103. Western Civilization III (4)

Continuation of HIST 102; the modern world since the Enlightenment. Meets General Education requirement in U.S. History. Prerequisite: Consent of instructor.

## HIST 251. Colonial Latin America (4)

From the eve of European conquest to the end of colonial control by Spain and Portugal. (Formerly 351)

## HIST 252. Latin American Státes Since Independence (4)

From the struggle for independence to the mid-twentieth century. (Formerly 352)

## HIST 280. Enst Asia in Traditional Times (4)

Origins and development of the principal institutions and cultural patterns of China, Japan, and Korea from earliest times to the mid-nineteenth century. (Formerly 380)

## HIST 281. East Asia in the Modern World (4)

Disintegation 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 mid-nineteenth century. (Formerly 381)

## HIST 284. Islamic History I (4)

The Islamic Middle East from 622 to 1258. The spread of Islam, its political and social institutions, its cultural achievements and the disintegration of the early empires to the Mongol conquest.

## HIST 285. Islamic History II (4)

From the establishment of the Ottoman and Saffavid empires in the thirteenth century to World War II: The impact of the West, the emergence of national movements and establishment of contemporary states.

## HIST 286. Africa Eefore 1800 (4)

Characteristic features of African civilizations from the earliest times to 1800.
HIST 287. Africa Since 1800 (4)
Historical foundations of modern African states.

## Upper Division

## HIST 308. Modern World History 1900-1945 (4)

Integrated global political history and discussion of selected problems of global significance during the period. Prerequisite: HIST 101, 102, and 103 or equivalent. Not open to students who have had HIST 324.

## HIST' 309, Módern World History Since 1945 (4)

Prerequisites: HIST 101, 102, and 103 or equivalent and consent of instructor. HIST 308 is recommended.

HIST 311. Hellenic Civilization 1 (4)
Greek leadership, from the Dorians to the debacle of the second century B.C. Prerequisite: HIST 101, 102, 103 or equivalent.

HIST 312. Hellenic Civilization If (4)
Roman leadership, from the Republic to the collapse of the Empire in the 5th Century A.D. Prerequisite: HIST 311 or consent of instructor.

## HIST 314. Medieval Europe I (4)

Western Europe from the fading of Roman rule to 1100. Prerequisites: Sophomore standing and HIST 101, 102 and 103 or equivivalent.
"
HIST 315. Medieval Europe II (4)
Western Europe from 1100 to 1500. Prerequisites: Sophomore standing and HIST 101, 102, and 103 or equivalent. HIST 314 should precede HIST 315 when possible.

## HIST 321. Europe From 1500 to 1648 (4)

The Renaissance in Italy and Northern Europe; the spread of Reformation ideals; the politics of Absolutism. Prerequisites: Sophomore standing and HIST 101, 102,103 or equivalent.

## HIST 322. Europe From 1648-1815 (4)

Politics of the Old Regime; Enlightenment ideology; the French Revolution; Napoleonic wars and Congress of Vienna. Prerequisites: Sophomore standing and HIST 101, 102, 103 or equivalent.

## HIST 323. Nineteenth Contury Europe (4)

Democratization in the age of nationalism; Napoleon to Sarajevo. Prerequisites: Sophomore standing and HIST 101, 102 and 103, or equivalent.

## HIST 324. Twentieth Century Europe (4)

Prerequisites: Sophomore standing and HIST 101, 102, 103 or equivalent.
HIST 361. Colonial America (4)
America 1492-1789. Age of Exploration through the American Revolution, Articles of Confederation, and the ratification of the federal Constitution: emergence of distinctively American social, political, and economic institutions; problems of nationalism. Prerequisite: Sophomore standing.

## hist 362. Ante-Eellum America (4)

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. Meets General Education requirement in U.S. history. Prerequisite: Sophomore standing.

## hist 363. Amorica After Civil War (4)

United States, 1865-1914. Reconstruction through Progressivism: development of a complex urban-industrial society; coming of world power. Meets General Education requirement in U.S. history. Prerequisite: Sophomore standing.

## History

## HIST 364. Contemporary America (4)

United States since 1914. World War I to present: America's role as a great power; problems of welfare capitalism. Meets General Education requirement in U.S. History. Prerequisite: Sophomore standing.

## HIST 367. California History (4)

Spanish exploration and settlement, environment, political, economic and social developments which give. California its unique character. Prerequisites: Sophomore standing and one year of college level history.

## HIST 368. Westward Movement (4)

Frontier and its influence on American institutions and character since Jamestown. Evaluation of the Turner thesis. Prerequisites: Sophomore standing and one year of college level history.

## HIST 371. Mexican-American History (4)

The role of the Mexican-American in the 19th and 20th centuries with emphasis on the modern period. Prerequisites: Junior standing and a course in Latin American or U.S. history or consent of instructor.

## HIST 373. Afro-American History (4)

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. Prerequisites: Junior standing; one course in American history.

HIST 384. Modern Middle East I (4)
From the Napoleonic invasion of Egypt (1798) to 1914. Political, social, economic and intellectual interaction between the Middle East and the West. Prerequisite: Sophomore standing.

## HIST 385. Modern Middle Enst II (4)

Continuation of HIST 384 covering the period since World War I. The results of European rule, indigenous nationalist and reform movements and the origins of contemporary conflicts. Prerequisite: Sophomore standing.

## HIST 386. Contemporary Africa (4)

Development of Pan-African ideology and the quest for political and economic stability in contemporary Africa. Prerequisite: Sophomore standing.

## HIST 389. East Asian Intellectual History (4)

Historical survey of the major works of Chinese and Japanese thought. Prerequisites: Sophomore standing and HIST 280 and 281.

HIST 403. Age of Exploration (4)
Exploration since Henry the Navigator; search for gold and spices. Establishment of trading factories and mercantilist colonies in Asia and Africa. Prerequisites: Junior standing and HIST 101, 102 and 103 or equivalent.

## HIST 404. Rise of European Colonial Systems 1200-1914 (4)

New colonialism of the nineteenth century in Asia and Africa. Prerequisites: Junior standing and one year of college level history.

## HIST 405. Fall of European Colonial Syatems 1914-1963 (4)

The collapse of colonialism in the twentieth century. Prerequisites: Junior standing and one year of college level history.

HIST 406. Science, Technology and Society Since 1700 (4)
Growth of science and technology, and their influences on modern thought and life. Prerequisiţes: Junior standing and HIST 101, 102, and 103 or equivalent.

H15T 408. Introduction to Comparative Civilization I (4)
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.

HIŠ' ${ }^{\mathbf{4} 09}$. Introduction to Comparative Civilization II' (4)
Individual student investigations using techniques acquired in HIST 408. Prerequisite: HIST 408.

HISt' 420. Modern Spain (4)
Spanish political, economic, and cultural life from 1492 to World War II. Prerequisites: Junior standing and HIST 101, 102 and 103 or equivalent.

## HIST 435. Modern France (4)

Development of the French nation, with emphasis on period since 1870. Prerequisites: Junior standing and HIST 101, 102 and 103 or equivalent.

## HIST"440. Modern Germany (4)

Germany since 1648. Prerequisites: Junior standing and HIST 101, 102 and 103 or equivalent.

## HIST 442. Imperial Russia (4)

Russia from the development of Czarist autocracy to the revolution of 1917. Prerequisite: Junior standing and HIST 101, 102 and 103 or equivalent.

## HIST 443. Soviet Russia (4)

Russia from the revolution of 1917 to the present. Prerequisite: Junior standing and HIST 101, 102 and 103 or equivalent.
mist 446. Modern Eritain (4)
Political, social, and intellectual development from the Tudor era to midtwentieth century. Prerequisites: Junior standing and HIST 101, 102 and 103 or equivivalent.

## HIST 450. History of Mexico (4)

From independence to the mid-twentieth century. Prerequisite: Junior standing.
HIST 452. Social Change in Contemporary Latin America (4)
Major developmental changes during the twentieth century. Intensive readings and research projects. Prerequisites: Junior standing and HIST 251 and 252 or consent of instructor.

## Hist 454. Northern Latin America (4)

The northern republics of South America and the Caribbean during the 19th and 20th centuries. Readings and research projects will be stressed. Prerequisites: Junior standing and HIST 250 and 251 or consent of instructor.

## HIST 455. Southern Latin America (4)

The southern republics of South America during the 19th and 20th centuries. Readings and research projects will be stressed. Prerequisites: Junior standing and HIST 250 and 251 or consent of instructor.

## HIST 470. American Diplomatic History (4)

U.S. foreign relations from colonial period to present. Prerequisites: Junior standing and one year of college level history to include a course in American history.

## Hisfory

## HIST 474. Constitutional History of the United States ( 4 )

The theory of limited government, and how the American people have applied it. Prerequisites: Junior standing and one year of college level history to include two courses in United States history.

## HIST 476. American Religious History (4)

History of American religious institutions and thought from colonial origins to present; importance of European backgrounds and American environment in producing a unique American religious tradition; impact of religion upon American social and cultural development. Prerequisites: Junior standing and two courses in American history.

## HIST 478. American Intellectual and Social History I (4)

American thought and institutions from their colonial origins to the mid-nineteenth century, with emphasis on the initial and continuing impact of the European experience and the American environment in helping to shape the character of America's political, social, economic, religious, and cultural life and thought. Prerequisites: Junior standing and one year of college level history to include the first half of American History.

## HIST 479. American Intellectual and Social History II (4)

Evolution of American thought and social institutions from the mid-nineteenth century to the present, with emphasis on the impact of industrialism, urbanism, and "great power" status upon the cultural milieu. Prerequisites: Junior standing and one year of college level history to include the second half of American history.

## HIST 480. Modern China (4)

Development of China; emphasis on the period 1839 to present. Prerequisites: Junior standing and HIST 280 and 281.

## HIST 484. Modern Japan (4)

Development of Japan; emphasis on the period 1853 to present. Prerequisites: Junior standing and HIST 280 and 281.

## HIST 486. North Africa (4)

Morocco, Algeria, Tunisia and Libya during the 19th and 20th centuries. Colonial rule, independence movements, and the political and social structures of the states which evolved. Prerequisite: Junior standing.

## hist 487. West Africa (4)

Formation of early states, of imperialism and nationalism. Prerequisite: Junior standing.

## HIST 488. East Africa (4)

Development of the coastal city states, inter-lacustrine kingdoms, imperialism and nationalism. Prerequisite: Junior standing.

Hist 489. South Africa (4)
Political, economic and social history since the 17th century. Prerequisite: Junior standing.

## HIST 495. Selected Topics in History (Topics to be specified in Class Schedule) (1-5)

Innovative course of study. May be repeated for credit. Prerequisite: Consent of instructor.

HIST 498. Individual study (1-5)
For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## HIST 499. Senior Thesis (Topics to be specified in Class Schedulo) (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.
HIST 523. Colloquim in Modern European History (Topics to be specified in Class Schedule)
(5)

Directed reading in the literature of the field. Prerequisites: Advanced course work in European history and consent of instructor.
HIST 524. Seminar in Modern Éuropeàn History (5)
Intensive original research in the source material of modern European history. Prerequisites: Advanced course work in European history to include HIST 324 and HIST 496, or equivalent, and consent of instructor.

## HIST 563. Colloquium in American History (Topics to be specified in Clắss Schedule) (5)

Directed reading in the literature of the field. Prerequisites: Advanced course work in American history and consent of instructor.

## HIST 564. Seminari in American History (Topics to he specified in Class Schedule) (5)

Intensive original research in the source material of American History. Prerequisites: Advanced course work in American history to include HIST 361 or 362 or 363 or 364 or equivalent, and consent of instructor.

## HIST 593. The History of Historical Writing (5)

The problem of reproducing the past, as seen through the eyes of leading practitioners and critics from earliest times to the present. Prerequisite: Advanced course work in history.

HIST 595. Selected Topics in History (Topics to be specified in Class Schedulo) (1-5)
Innovative course of study. May be repeated for credit. Prerequisite: Consent of instructor.

HIST 598. Individual Study (1-5)
For qualified graduate students in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## HIST 599. Thesis (3-9)

Thesis research. Prerequisite: Consent of instructor.

# Mathematics 

Narendra L. Maria, Ph.D., Professor, Chairman James N. Javaher, Doctorat d'Université, Professor Chester W. Dyche, M.A., Associate Professor Michael J. Berg, Ph.D., Assistant Professor Shang-Wang Chang, Ph.D., Assistant Professor<br>Louis A. Feldman, Ph.D., Associate Professor<br>Edward L. Pugh, Ph.D., Associate Professor<br>Gary B. Green, Ph.D., Assistant Professor<br>Ralph L. James, Ph.D., Assistant Professor<br>James L. Southam, Ph.D., Assistant Professor

Courses in mathematics are designed primarily to provide thorough undergraduate training in mathematics and to serve the needs of majors in mathematics, the natural and social sciences, and other fields. Prospective teachers in the elementary and secondary schools may obtain teaching majors or minors in mathematics.

The work required for a Bachelor of Arts, Mathematics presupposes seven semesters of high school level mathematics: algebra ( 2 years), plane geometry ( 1 year), and trigonometry ( $1 / 2$ year); solid geometry and physics are desirable. Deficiencies may be made up by proper selection of courses in the lower division. Recommended courses in lower division supporting fields are two years of French, German, or Russian, and one year of general physics.

## REQUIREMENTS FOR THE BACHELOR Of ARTS, MATHEMATICS

Mathematics 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 40 upper division units, including course requirements as specified for the major in the table.
Completion of a minor is not required.

# DEGREE MAJOR IN MATHEMATICS 

Prerequisites to the Major
MATH 119. Calculus with Analytic Geometry, 4 units
MATH $120,221,222,223$. Calculus I-IV, 16 units
The Major Units
Two of the following sequences of courses as approved by the major adviser.

MATH 301, 302, 303. Foundations of Mathematics I-II-III
MATH 311, 312, 460. Analysis I-II, Complex Variables MATH 351, 352, 353. Algebra I-II-III
Courses in mathematics as approved by the major adviser ..... 16
Total ..... 40

## Mathematics

## DEGREE MINOR IN MATHEMATICS <br> (28 units including at least 16 units in upper division)

## Lower Division

MATH 119, 120, 221. Calculus with Analytic Geometry, Calculus I-II, 12 units.

## Uppes Division

Courses as approved by minor adviser, 16 units.

## TEACHING CREDENTIALS

Majors in mathematics seeking elementary and secondary credentials must fulfill the following requirements:

1. Degree major in mathematics.
2. Complete MATH 301, 302, and 303.
3. Secondary credential candidates must complete 9 units in courses in mathematics as postbaccaleaureate work and receive approval of the Mathematics Department as to subject matter competence.
4. Complete requirements for the credential as presented by the Education Department.

## COURSE DESCRIPTIONS *

## Lower Division

MATH 100. Math for Liberal Arts Students (5)
Sets, relations, nonmetric geometry, systems of numerations, modular arithmetic, properties of the sets of natural numbers, integers, rational and irrational numbers, real numbers. Recommended for general students and those seeking an elementary teaching credential. Not open to students who have had MATH 119 or equivalent, or MATH 150. Credit not applicable to major or minor in mathematics.

## MATH 102. Mathematies in Human Affairs (4)

Social functions of mathematics; the origins of the various branches of mathematics in problems of human affairs; the development of mathematics as an independent entity; influences of mathematical thinking in the development of the behavioral, biological, decision, natural, and social sciences; effects of mathematics on the course of human affairs. Prerequisite: Consent of the intructor.

## MATH 105. Intermediate Algebra (4)

Exponents, fractions, radicals, linear and quadratic equations; arithmetic, geometric, and harmonic series; functions and their graphs, permutations and combinations, binomial theorem. Not open to students who have had MATH 110 or equivalent. Credit not applicable to major or minor in mathematics. Prerequisite: One year of high school algebra or MATH 100.

## MATH 110. College Algebra and Trigonometry (4)

Inequalities, theory of equations, determinants, trigonometric functions, solution of triangles, linear transformations and matrices, applications to practical problems. Recommended for students of applied sciences. Credit not applicable to major or minor in mathematics. Prerequisite: Two years of high school algebra or MATH 105.

## MATH 119. Calculus With Analytic Geometry <br> (4)

Inequalities, sets and functions, coordinate systems, graphs, limits, the derivative, continuity, sequences, analytic geometry and conic sections. Prerequisites: Two years of high school algebra, one year of plane geometry, and one-half year of plane trigonometry, or MATH 110.

[^24]
## Mathematics

## MATH 120. Calculus I <br> (4)

Introduction to differential and integral calculus with applications. Thorough techniques of differential and integral calculus. Taylor's theorem, L'Hopital's rule, partial differentiation, multiple integration, sequences and infinite series, vector spaces and linear algebra, vector field theory, introduction to differential equations. Prerequisite: MATH 119.

## MATH 150. Finite Mathematics (4)

Fundamental principle of truth, laws of deductive logic, tree diagrams, algebra of sets, permutations, ordered partitions and counting, probability, conditional probability, finite stochastic processes. (Formerly 210) Prerequisite: One year of high school algebra or MATH 100 or consent of the instructor.

## MATH 160. Statistics (4)

Introductory course designed for students in the social and natural sciences. Organization and presentation of data, frequency distributions, computation of descriptive constants, fundamentals of distributions, probability, analysis and interpretation of data. Prerequisite: Two years of high school algebra or MATH 105 or consent of instructor.

## MATH 200. Introduction to Computers (4)

A detailed study of programming digital computers using the FORTRAN language. Includes analysis of problems, development of algorithms and 'flowcharts, FORTRAN coding, running and testing of programs. (Lecture, 3 hours; laboratory, 2 hours). Prerequisite: MATH 105 or two years of high school algebra.

## MATH 201. Computer Programming (3)

A continuation of Math 200 with emphasis on more sophisticated applications of FORTRAN and use of the capabilities of the computer. Laboratory projects will involve the student's area of interest when possible. (Lecture, 2 hours; Laboratory, 2 hours). Prerequisite: MATH 200 or equivalent.

## MATH 221. Calculus II (4)

Polar coordinates, vectors in a plane, thorough techniques of integration, applications of the integral. Prerequisite: MATH 120.

## math 222. Calculus III (4)

Solid analytic geometry, vectors in three dimensions, infinite series, partial differentiation, multiple integration. Prerequisite: MATH 221.

## MATH 223. Calculus IV (4)

Matrices and determinants, vector spaces and linear transformation, functions defined by integrals, differentiation under the integral sign, vector field theory, introduction to differential equations. Prerequisite: MATH 222.

## Upper Division

MATH 300. History of Mathematics (4)
Origin and development of mathematical ideas from early civilization to the present time. Prerequisite: Consent of instructor.

## MATH 301. Foundations of Mathematics I (4)

Early attempts to axiomatize set theory and the naive axioms; the Russel paradox, modern set theory, general theory of functions and relations, the cardinal numbers, introduction to the ordinal numbers. Recommended for elementary and junior high school teachers seeking an advanced course in mathematics. Prerequisites: PHIL 110 or consent of instructor.

## MATH 302. Foundations of Mathematics II (4)

Derivation of the positive integers from the Peano axioms, the existence of zero and negative integers, real numbers as the completion of the rational numbers, uniqueness of the real numbers as a complete Archimedian ordered field, continuum hypothesis from Cantor to Cohen, complex numbers and their properties as a field. Recommended for secondary credential candidates. Prerequisite: MATH 301.

MATH 303. Foundations of Mathematics ill (4)
The incidence axioms, the theory of distance and its connection with the incidence axioms, the separation axioms, congruence of triangles, Euclid's Fifth Postulate and the general Euclidean geometry, related non-Euclidean geometries. Recommended for secondary credential candidates. Prerequisite: MATH 302.

MATH 311. Analysis I (4)
Real and complex number systems, point set topology, metric spaces, compactness, Bolzano-Weierstrass theorem, completeness, limit and continuity, differentiation, Riemann-Stieltjes integral, sequences and series of functions, uniform convergence, Fourier series, functions of several variables, implicit function theorem, inverse function theorem, Green's and Stoke's theorems, Lebesgue theory. Prerequisite: MATH 223.

MATH 312. Analysis II (4)
Continuation of MATH 311. Prerequisite: MATH 311.
MATH 313. Analysis III (4)
Continuation of MATH 312. Prerequisite: MATH 312.

## MATH 32I. Ordinary Differential Equations I (4)

Exact equations, linear equations, Laplace transforms and operational methods for linear equations, linear systems, initial value problems, existence and uniqueness of solutions. Picard's method of successive approximations, series solutions, Legendre equations and polynomials, linear equations with regular singular points. Bessel's equation and functions. Prerequisite: MATH 223 or consent of instructor.

## MATH 322. Ordinary Differential Equations II (4) <br> Continuation of MATH 321. Prerequisite: MATH 321.

MATH 323. Partial Differential Equations (4)
Introduction to partial differential equations. Boundary value problems for elliptic and parabolic equations. Initial value problems for hyperbolic equations. Prerequisite: MATH 321.

## MATH 332. Topology of Metric Spaces (4)

Set theory, metrics and metric spaces, separation properties, density, connectedness, topological spaces, homeomorphisms, equivalent metrics, simplicies and simplicial complexes, cells and cell complexes, Euclidean spaces, subspaces, and subsets, implicit function theorems and algebraic varieties. Prerequisite: MATH 223.

## MATH 333. Differential Geometry (4)

Vector spaces and their duals, tangent spaces and tangent vectors of Euclidean spaces, vector fields and distributions over Euclidean spaces, differentiable manifolds and submanifolds, the existence and properties of Riemannian metrics, geodesics, curvature, surface area, Gauss-Bonnet theorem. Prerequisite: MATH 332.

## MATH 341. Introduction to Linear Programming (4)

Linear programming model, other mathematical models, linear equations, the simplex method, transportation problems, distribution problems, maximum flow in networks, nutrition problem. Prerequisite: MATH 110.

## Mathemarics

## MATH 342. Introduction to Operations Research I (4)

Vector spaces and matrices, systems of linear equations and inequalities, convex sets, geometric interpretation of linear programming, simplex multipliers, revised simplex method, duality and existence theorem, matrix games and the fundamental theorem, solutions of matrix games. Prerequisite: MATH 119 or consent of instructor.

MATH 343. Introduction to Operations Research II (4)
Continuation of MATH 342. Prerequisite: MATH 342.

## MATH 351. AlgebraI (4)

Sets, equivalence relations, rings, integral domains, mathematical induction, fields, field of quotients, unique factorization for integers and polynomials, real and complex numbers, groups, homomorphisms, subgroups, cosets, factor groups, vector spaces, linear transformations, matrices, null space, rank, linear equations, dual vector spaces, determinants, characteristic values, similarity, canonical forms, unitary spaces, quadratic forms. Prerequisite: Consent of instructor.

## MATH. 352. Algebra II (4) <br> Continuation of MATH 351. Prerequisite: MATH 351.

## MATH 353. Algebra 111 (4)

Continuation of MATH 352. Prerequisite: MATH 352.

## MATH 361. Probability (4)

Concept of probability; theorems of total and compound probabilities; concepts of random variables, expected value, variance and covariance; corresponding rules; continuous probability distributions; binomial distribution and its limiting cases; normal distribution and Poisson distribution. Prerequisite: MATH 120.

## MATH 362. Inferential Statistics (4)

Normal and binomial distributions, normal probability function, tests of hypotheses, power of tests, statistical inference, regression analysis. Prerequisites: MATH 110 and 160.

## MATH 400. Mathematical Logic I (4)

Propositional calculus, quantification theory, axiomatics and natural deduction, decision procedures. Introduction to some non-classical logics, such as intuitionistic logic, modal logic, deontic logic, doxastic logic. Indication of the significance of mathematical logic for mathematics and computer science. Prerequisite: MATH 301 or PHIL 110 or consent of instructor. Same as PHIL 400.

## MATH 401. Mathematical Logic II (4)

Continuation of MATH 400. Prerequisite: MATH 400. Same as PHIL 401.
MATH 420. Vector and Tensor Analysis (4)
Vector algebra, differentiation of vectors, gradient, divergence, curl, Green's theorem, Stoke's theorem, introduction to tensor analysis, applications to geometry and physics. Prerequisite: MATH 223 or consent of instructor.

MATH 431. Numerical Analysis I (4)
Numerical methods for solution of systems of linear equations and determination of eigenvalues and eigenvectors of matrices. Applications to solution of partial differential equations. Prerequisite: MATH 200 and 223.

## MATH 432. Numerical Analysis II (4)

Numerical methods for solution of nonlinear algebraic equations. Approximation theory including least square and Chebyshev approximation. Interpolation. Finite Differences. Prerequisite: MATH 431.

## Mathematics

## MATH 433. Numericml Analysis III (4)

Numerical methods for differentiation and quadrature. Difference equations. Solution of ordinary differential equations. Prerequisite: MATH 432.

## MATH 440. Theory of Numbers (4)

Euclid's algorithm and fundamental theorems on divisibility, prime numbers, congruence of numbers, theorems of Fermat, Euler, and Wilson, congruence of the first and higher degrees, Lagrange's theorem and its applications, residues of power, quadratic residues, introduction to the theory of binary quadratic forms. Prerequisite: MATH 120.

## MATH 460. Complex Variables (4)

Analytic functions, Cauchy-Riemann equations, theorem of Cauchy, Laurent series, calculus of residues. Prerequisite: MATH 311 or consent of instructor.

MATH 470 . Differential and Algebraic Topology (4)
Homotopy, the fundamental group and simple connectedness, differentiable connections, curvature, elementary homology and cohomology theory, manifold duality, De Rham's theorem. (Formerly 334). Prerequisite: MATH 333 and 351.

## MATH 495: Selectod Topics in Mathematics (Topics to be specified in Class

 Schedule) (1-5)Development of a selected branch in mathematics.
Topics vary each term. May be repeated for credit. Prerequisites: Senior standing à and consent of instructor.

## MATH 496. Seminar in Mathematics (4)

Presentation and discussion of selected topics in mathematics from the current literature. Prerequisite: Consent of the instructor.

MATH 498. Individual Study (1-5)
For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 8 units. Prerequisites: Senior standing, consent of instructor, and also see departmental regulations.

## Graduate

## MATH. 595. Selected Topics in Mathematics (Topics to be specified in Class Schedule) (1-5)

Development of a selected branch in Mathematics.
Topics vary each term. May be repeated for credit. Prerequisite: Consent of instructor.

## MATH 598. Individual Study (1-5)

For qualified graduate students in need of advanced or specialized study. Prerequisite: Consent of instructor, and also see departmental regulations.

## Professional Postgraduate

## MATH 600. Struciure of Real Number System (5)

Sets, relations, systems of numerations, modular arithmetic, properties of the sets of natural numbers, integers, rational and irrational numbers, structure of the real number system. Open only to in-service teachers who hold the bachelor degree and who wish to qualify for the Standard Teaching Credential. Prerequisite: Consent of instructor.

## MATH 60I. Geometry and Mathematical Systems (4)

Continuation of MATH 600. Euclidean geometry, measurements, functions and graphs, Cartesian coordinates, mathematical patterns and mathematical systems, permutations and combinations, probability. Recommended for elementary and junior high school teachers seeking an advanced course in mathematics.

# Music 

R. Scott Coulter, M.M., Chairman<br>Giovanni Camajani, Ph.D., Professor<br>Gene C. Wisler, Ed.D., Professor<br>Joseph E. Bruggman, Ed.D., Professor<br>Sylvia M. Ghiglieri, M.M., Associate Professor

The music curriculum provides aesthetic and cultural development to the general student in liberal arts. It also offers courses appropriate to the establishment of backgrounds for private music teaching, elementary and secondary school classroom and vocal music teaching, and graduate study in music. The total program attempts to develop each student's creative potential through study and experience in performance, theory and composition, history and literature.

The College offers the degree Bachelor of Arts, Music. The student who intends to major in music is advised to consult with the music chairman concerning the development of programs of study in specific fields of specialization. Responsibility rests with the potential music major to secure the music area list of testing dates and other details pertaining to music area requirements.

## REQUIREMENTS FOR THE BACHELOR OF ARTS, MUSIC

Music 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 39 upper division units.
4. Completion of a minor is not required.

## GENERAL REQUIREMENTS FOR MUSIC MAJOR AND MINOR

1. Freshmen and transfer students contemplating a major or minor in music are required to declare a major performing medium (voice, piano, or orchestral instrument) upon entering the program.
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.
3. A freshman or lower division transfer will be evaluated for the acceptance as a major or minor in music during the final quarter of the sophomore year. Students entering as transfers at the upper division level will be evaluated for acceptance as a major or minor in music during the latter part of the first quarter in which they enroll in music courses in the college. Evaluation will be based upon lower division course work completed in music and audition in the major medium of performance conducted by a committee of the music faculty.
4. Students are required to perform in recital as a part of a course in applied music as determined by the instructor.
5. During the final quarter, before graduation, all students 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 single piano accompaniment to well-known melodies and demonstrate knowledge of basic technique as expected in technical exercises and simple literature. The student should consult his adviser about this requirement and if necessary schedule courses in piano and voice. Class instruction is offered at the beginning level in both areas.
6. Music majors are required to participate in one performing group (chorus, ensemble, band or orchestra) each quarter.
7. At the conclusion of each quarter, every music major and minor will be expected to demonstrate proficiency on his or her instrument or voice before a panel of faculty members. The purpose of these faculty evaluations is to encourage consistent growth in the student's performance area and to offer more frequent opportunities for public appearance.
8. All music majors are required during the senior year to present themselves in solo or chamber ensemble performance in the area of their major medium of performance as may be determined by a committee of the music faculty. Satisfactory performance is required for fulfillment of major requirements.

## DEGREE MAJOR IN MUSIC

Prerequisites to the Mejor
MUS 122, 123. Foundational Theory I-II, 8 units.
MUS 161, 164. Basic Class Piano and Basic Class Voice, 1 unit each. (May be met by examination; additional work may be required dependent upon level of competence. If met by examination, units will be added to courses in music as provided by the major adviser.)
MUS 222, 223 , 224. Intermediate Theory I-III, 12 units
MUS 241, 242, 244, 245, 246, 247 or 268. Group Performance (chorus, choral ensemble or one or more of the instrumental ensembles, concert band, orchestra) 6 units
MUS 261 through 267. Applied Music (major performance medium), 6 units.
The Major
MUS 301, 302, 303. History and Literature I-III

MUS 321. Analysis and Composition in Small Forms 3

MUS 325. Instrumental Conducting or 326 Choral Condacting____ 3
MUS 441, 442, 444, 445, 446, 447, 468. Group Performance (Chorus, En-
sembles, Concert Band or Orchestra) _________ 6
MUS 461 through 467. Applied Music (major performance medium) --_ 6


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Students preparing for the credential program in music are advised to include courses in string, woodwind, brass techniques and percussion.

## DEGRE MINOR IN MUSSC

(31 units, to include at least 15 units in upper division)

## Lower Division

MUS 122, 123. Foundational Theory I-II, 8 units
MUS 161, 164. Basic Class Piano and Basic Class Voice, 1 unit each (May be met by examination: additional work may be required dependent upon level of competence. If met by examination, units will be added to courses in music as provided by the major adviser.)
MUS 222. Intermediate Theory I, 4 units
MUS 241, 242, 244, 245, 246, 247 or 268. Group Performance (chorus, choral ensemble or one or more of the instrumental ensembles, concert band, or orchestra), 3 units
MUS 261 or 264 or 267. Major instrument or voice, 3 units.

## Upper Division

Music units selected from the following as approved by major adviser, 9 units. MUS 301, 302, 303. History and Literature I-III
MUS 325. Instrumental Conducting or Choral Conducting
MUS 335. Music in Elementary Schools
MUS 365. String Techniques I
MUS 366. String Techniques II
MUS 367. Woodwind Techniques
MUS 368. Brass Techniques
MUS 369. Percussion Techniques
MUS 441, 442, 444, 445, 446, 447 or 468 . Group Performance, 3 units
MUS 461 or 464 or 467 . Major instrument or voice, 3 units.

## TEACHING CREDENTIALS

Majors in music seeking an elementary credential must complete the following requirements:

1. Degree major in music.
2. Complete MUS 326 Choral Conducting and MUS 335 Music in Elementary Schools. Both of these courses must be completed prior to student teaching.
3. Complete the requirements of the Education Department for the elementary credential.
Majors in music seeking a secondary credential must complete the following requirements:
4. Degree major in music.
5. Complete 12 units in music courses as postbaccalaureate work.

The secondary credential candidate must complete MUS 325 (Choral Conducting), MUS 326 (Instrumental Conducting), MUS 335 (Music in Elementary Schools), MUS 336 (Music in Secondary Schools) and MUS 450 (Analysis of Instrumental Literature) or MUS 451 (Analysis of Vocal Literature). Students are encouraged to take both courses.
The secondary credential candidate must demonstrate basic proficiency in strings, woodwinds, brasses and percussion. This requirement, to be worked out in consultation with the music credential adviser, may be met by elect ing appropriate courses in the Instrumental Technique series.
Some of the above courses may be completed as a part of the degree major in music. All of the above courses must be completed for the secondary credential.
3. Complete the requirements of the Education Department for the secondary credential.

## MUSIC COURSES FOR NON-MAJORS

For the non-major who is interested in music as cultural heritage, the Department of Music offers courses in Symphonic Literature, the Bach Festival (given only in the summer session), the World of Opera, American Music, Survey of the Oratotiô, History of Jazz and Music of Black America. The department also welcomes general student participation in its group performance courses (chorus, ensembles, concert band and orchestra).

## GROUP PERFORMANCE COURSE CREDIT

A maximum of 18 units, including no more than 9 units in lower division in group performance courses (chorus, ensemble, band or orchestra) may apply toward a degree.

## COURSE DESCRIPTIONS

 theory
## Lower Diyision

## Mus 101. Easic Musicianship (3)

Study of the rudiments of rhythm, intervals, notation, triads and sight-reading. Students who major or minor in music may enroll for the basic musicianship and solfege courses to be taken concurrently with the theory courses. Units are not credited to the major or minor, but may be credited towards graduation. No prerequisites.

## MUS 102. Solfege I (3)

Continuation of MUS 101. Two-part exercises and elaboration of rhythmic and chromatic difficulties. Prerequisite: MUS 101.
mUS 103. Solfoge It (3)
Continuation of MUS 102. Two-part exercises with text, maximum difficulties of pitch and rhythm. Readings of four-part excerpts from accepted masterworks. Prerequisite: MUS 102.

## mus 122. Foundational Theory I (4)

All triads and inversions, cadences, non-harmonic tones, chord connections and creative writing in various textures. Ear training, sight-singing, analysis, and keyboard harmony. Prerequisite: MUS 101 or equivalent.

MUS 123. Foundational Theory 11 (4)
Continuation of MUS 122. Dominant seventh chord with inversions, modulation, and secondary dominants. Ear-training, sight-singing, keyboard harmony, and creative writing. Prerequisite: MUS 122.
mus 222. Intermediate Theory 1. (4)
Continuation of MUS 123. Seventh chords and inversions, diminished seventh chord with modulation and sequence. Ear-training, sight-singing, keyboard harmony, and creative writing. Prerequisite: MUS 123.

## MUS 223. Intermediate Theory II (4)

Continuation of MUS 222. Ninth, eleventh, and thirteenth chords, altered chords, and chromatic modulation.' Ear-training, sight-singing, analysis, keyboard-harmony, and creative writing. Prerequisite: MUS 222.

## MUS 224. Intermediate Theory HI (4)

Continuation of MUS 223. Modal harmony, impressionistic devices and twentieth century harmony and techniques. Ear-training, sight-singing, analysis, keyboardharmony and creative writing. Prerequisite: MUS 223.

## Music

## MUS 320. Counterpoint (3)

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, Book I; emphasis on creative writing in contrapuntal two- and threepart forms. Prerequisite: MUS 224.

## MUS 321. Analysis and Composition (3)

Analysis of musical structure from the short two- and three-part forms to sonata-form; emphasis on the comparison of styles and the development of an ability to write in various forms. Prerequisite: MUS 320.

## MUS 324. Orchestration (3)

A study of all orchestral instruments as to range, technique and general use. including study of color and combinations. Emphasis on writing and studying scores. Prerequisite: MUS 224 or consent of instructor.

## MUS 325. Instrumental Conducting (3)

A study of basic baton technique and score reading with emphasis upon applied conducting techniques in group performance of standard orchestral literature. Prerequisite: MUS 224 or consent of instructor.

## MUS 326. Choral Conducting (3)

A study of choral conducting technique with emphasis upon performance of standard choral literature. Prerequisite: MUS 224 or consent of instructor. Students must be currently enrolled in MUS 241 or MUS 441.

## history and litirature

## Lower Division

## MUS 100. Introduction to Music (4)

Music considered as a facet of the intellectual continuum involving the philosophical, sociological and historical aspects; consideration of origins; symbols of the language in its theory and introduction to form. Can be taken on a credit or no credit basis. No prerequisites.

MUS 230. Symphonic Liferature (4)
The symphony: abstract and programmatic aspects; the tone poem and its relation to the sonata form; in-depth approach to analysis of a limited number of representative works in this medium. Prerequisite: MUS 100.
mus 231. Hisfory of Jazz (4)
An introduction to jazz with concentration on its historical background and its development in the United States.

## Upper Division

## MUS 307. History and Literałure I <br> (3)

A historical perspective of music from ancient Greek through the Middle Ages and the Renaissance eras; philosophical and sociological impacts; early monody and polyphony; analysis of styles and forms. Lectures, discussions, collateral readings, term thesis. Prerequisite: Ability to read music.

## Mus 302. History and Literature 11 (3)

Continuation of MUS 301. Music of the Baroque and Classical eras. Prerequisite. Ability to read music.
mus 303. History and Literature ill (3)
Continuation of MUS 302. Music of the Romantic and Contemporary eras. Prerequisite: Ability to read music.

## mus 309. Bach Festival (2) Summer Session Only

Study of the music of Bach and the Baroque and Classical Eras with a concentration on the works which will be performed at the Carmel Bach Festival. Travel to Carmel to attend four concerts. The course may be repeated for credit twice, not to exceed six quarter units.

MUS 310. The World of Opera (4)
A study of one representative work from each of the English, French, German, Italian and Russian literature. Considerations of the nature, reality and components of this medium, plus linguistic problems. (Formerly 320). Prerequisite: MUS 100.

MUS 340. American Music (4)
This course is restricted to music of the United States and surveys the contributions of composers of our country from the American Revolution to the present. Prerequisite: MUS 100.

## MUS 341. Musit of Black America (4)

A survey and appraisal of Negro-American music, its heritage and impact on the American scene. Consideration of African ethnic roots through to jazz and contemporary rock.

## mus 350 . Survey of the Oratorio (4)

A chronological survey of the oratorio from the Sacre Rappresentazioni of the sixteenth century to Stravinsky's Symphony of Psalms and Kodaly's Psalmus Hungaricus, with an analysis of one work from each of the historical periods. Prerequisiţe: MUS 100.

## MUS 401. Music in the Renaissance Era (3)

A critical analysis of masic from the late fourteenth century through the sixteenth century, Prerequisite: Ability to read music.

## MUS 402. Music of the Eareque Era (3)

An intensive analysis of vocal and instrumental forms of the period from 1600 to 1750 ; the early opera, oratorio and cantata; suite, concerto grosso and sonata. Prerequisite: Ability to read music.

## MUS 403. Music of the Classical Era (3)

An analytical examination of the music from 1750 to 1827 , with special emphasis on the works of the Viennese classicists: Haydn, Mozart and Beethoven. Prerequisite: Ability to read music.

## MUS 404. Romantic Music of the Ninateenth Century (3)

Concepts and ideals of the Romantic periods from circa 1820 to 1900 seen through the focal point of music. Prerequisite: Ability to read music.

## MUS 405. Twentieth Century Music (3)

A critical examination of impressionism and expressionism in music of Debussy and Webern. Polytonal and atonal ramifications; primitivism of Stravinsky. Prerequisite: Ability to read music.

## MUS 450. Analysis of Instrumental Literafure (3)

A comprehensive review of instrumental literature of the various music periods for orchestra, band, chamber music and solo performance. Prerequisite: Senior standing as a music major or minor, or consent of instructor.

## Music

## MUS 451. Analysis of Yocal Literature (3)

A comprehensive survey of vocal music suitable for large and small choral organizations; music for madrigal groups and glee clubs, plus solo material for various vocal categories. Course limited to students in upper division.

## MUS 496. Senior Seminar (4)

Individual research in specific problems. Emphasis on introduction to musicology. Weekly reports and term thesis required. Open only to qualified seniors with consent of instructor.

## INSTRUMENTAL TECHNIQUE

## Upper Division

Courses in instrumental techniques may be repeated for credit provided the student studies a different instrument each time the course is offered. These courses are open to all students of the college.

MUS 365. String Techniques I (1)
Performance and rechniques of playing violin, viola, cello and double bass. Prerequisite: Consent of instructor.

## MUS 366. String Techniques II (1)

Continuation of MUS 365. Performance techniques of playing violin, viola, cello and double bass. Prerequisite: MUS 365 or consent of instructor.

## MUS 367. Woodwind Techniques (1)

Performance techniques of playing flute, clarinet, oboe and bassoon. Prerequisite: Consent of instructor.

## MUS 36s. Brass Techniques (1)

Performance techniques of playing trumpet, horn, trombone, baritone and tuba. Prerequisite: Consent of instructor.

## MUS 369. Percussion Techniques (1)

Performance techniques of playing snare drum, bass drum, tympani, melodic percussion instruments. Prerequisite: Consent of instructor.

## GROUP PERFORMANCE

## Lower Division

## MUS 241. Chorus (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 stadent will participate in public performances. May be repeated for a rotal of 6 units. (Formerly 351) Prerequisites: Ability to read music and an acceptable singing voice.

## MUS 242. Choral Ensemble (1)

Study and performance of music for small vocal ensembles. Participation in public performance is expected. May be repeated for a total of 6 units. Prerequisites: Ability to read music and an acceptable singing voice.

## MUS 244. Concert Band (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 6 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 6 units. Prerequisite: An acceptable degree of performance skill.

## MUS 246. Brass Ensemble (I)

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 6 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 6 units. Prerequisite: An acceptable degree of performance skill.

## MUS 268. Orchestra (1)

Study and performance of standard orchestra music. As a member of a major performance group the student will participate in all public performances. May be repeated for a total of 6 units. Prerequisite: An acceptable degree of performance skill.

MUS 441. Chorus (1)

## Upper Division

Study and performance of choral masterworks. Open to all students. A voice test will be given. Students are expected to participate in all public performances. May be repeated for a total of 6 units. (Formerly 351) Prerequisites: Ability to read music and an acceptable singing voice.
mUS 442. Choral Ensemble (1)
Study and performance of music for small vocal ensembles. Participation in public performance is expected. May be repeated for a total of 6 units. Prerequisites: Ability to read music and an acceptable singing voice.
mus 444. Concert Band (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 6 units. Prereguisite: 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 6 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 6 units. Prerequisite: An acceptable degree of performance skill.
mus 447. 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 6 units. Prerequisite: An acceptable degree of performance skill.

## mus 468. Orchestra ( 1 )

Study and performance of standard orchestra music. As a member of a major performance group, the student will participate in all public performances. May be repeated for a total of 6 units. Prerequisite: An acceptable degree of performance skill.

## Music

## mUS 490. Opera Repertory Theatre (2)

An intensive study of operatic mise-en-scène, makeup, vocal ensemble, staging of scenes, direction and lighting. All students are expected to participate in every aspect of operatic production. Prerequisites: DRAM 340 and consent of instructor.

## APPLIED MUSIC <br> Lower Division

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 6 units. No prerequisite.

## mus 164. Bessic 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 6 units. Prerequisite: Ability to read music.

## MUS 261. Intermediate Piano (1)

Study and performance of the smaller compositions in the standard piano literature. May be repeated for a total of 6 units. (Formerly 271) Prerequisite: Consent of instructor.

MUS 264. Intermediate Voice (1)
Continuation of fundamentals of voice training; development of expressive singing for solo and ensemble performance. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

## MUS 267. Intermediate Orchestral Instruments (1)

Instruction in orchestral instruments: strings, woodwinds, brasses, and percussion. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

## Upper Division

## muS 461. Adivansed Piano (1)

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 12 units. Prerequisite: Consent of instructor.
mUS 464. Advanced Voice (1)
Vocal technique for the advanced student; study of German Lieder, French and Italian repertoire, and solo material in cantata, oratorio, and opera. May be repeated for a total of 12 units. Prerequisite: Consent of instructor.

## MUS 467. Advanced Orchestral Instruments (1)

Advanced instruction in orchestral instruments: strings, woodwinds, brasses, and percussion. May be repeated for a total of 12 units. Prerequisite: Consent of instructor.

## music education

Uppor Division

## mus 335. Music in Elementary Schools (3)

Application of music to the elementary classroom. Problems, methods and materials covering such areas as singing, rhythms, creative music, music reading and music appreciation. Not open to lower division students.

## MUS 336. Music in Secondary Schools (3)

The music programs in the junior and senior high schools, general music classes, performance groups, arts and humanities courses.

## SPECIAL STUDY PROJECTS

## MUS 495. Selected Topics in Music (1-5)

Consideration of selected topics in music. Since topics change each term, this course may be repeated for credit. Prerequisite: Consent of instructor.

## mus 498. Individual Sfudy (1-5)

For.students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

MUS 595. Selected Topics in Music (1-5)
Consideration of selected topics in music, limited to qualified graduate students. Since topics change each term, this course may be repeated for credit.

## MUS 598. Individual Study (1-5)

For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

# Philosophy 

Catherine D. Rau, Ph.D., Professor, Coordinator<br>Hsiu-hwang Ho, Ph.D., Assistant Professor

## dEGRE MINOR IN PHILOSOPHY

Twelve units in lower division, as approved by the minor adviser and programmed over at least three quarters. Twenty-four units in upper division, as approved by the minor adviser and programmed over at least six quarters.

## TEACHING CREDENTIALS

Minors in philosophy for elementary and secondary credentials must fulfill the following requirements:

1. Degree minor in philosophy; plus additional courses in philosophy to total a minimum of 30 units, as recommended by the minor adviser and approved by the credential adviser.
2. Secondary credential candidate must receive approval of Philosophy as to competence in subject matter.

## COURSE DESCRIPTIONS

## PHIL 101. Classics of Philosophy I (4)

Reading and discussion of selected works of the major philosophers as introduction to the principal philosophic disciplines of metaphysics, ethics, theory of knowledge, political theory, and philosophy of religion.
PHIL 102. Classics of Philosophy II (4)
Continuation of PHIL 101. PHIL 101 not prerequisite to PHIL 102.
PHIL 103. C̈lassics of Philosophy III (4)
Continuation of PHIL 102. Neither PHIL 101 nor PHIL 102 prerequisite to PHIL 103.

## PKIL ilo. Deductivo logic (4)

Analysis of the methods and principles of deductive reasoning, including traditional Aristorelian syllogistic logic, and an introduction to modern symbolic logic. (Formerly 201)

## PHIL 111. Inductivo Logic (4)

Analysis of the methods of science: definition, classification, inductive reasoning, scientific explanation. (Formerly 201)

## PHIL 250. History of Philosophy I (4)

A general survey of the history of Western philosophy from the pre-Socratics to the end of the Classical Period. (Formerly 311) Prerequisite: Sophomore standing.

## PHIL 251. History of Philosophy II (4)

Continuation of PHIL 250. From late Antiquity through the Middle Ages. (Formerly 311) Prerequisite: PHIL 250.

## PHIL. 252. History of Philosophy III (4)

Continuation of PHIL 251. From the Renaissance through the nineteen century. (Formerly 312) Prerequisite: PHIL 251.

## PHIL j02. Philosophy bf Religion I (4)

Critical study of the traditional arguments for the existence of God. Prerequisite: Twelve units in lower division courses in philosophy or consent of instructor.

## PK'il 303. Phillsophy of Religion II (4)

Continued study of religious concepts and language. An epistemological and logical analysis of mysticism. Prerequisite: PHIL 302 or consent of instructor.

## PHIL 320. Theory of Knowledge <br> (4)

Analysis of the concept of knowledge; examination of the principal problems of knowledge. Readings from contemporary epistemologists. (Formerly 412) Prerequisite: Twelve units in lower division courses in phillosophy.
PHIL 325. Philosophy of Language (4)
Inquiry into the theory of signs: pragmatics, semantics and syntactics. Prerequistes: PHIL. 110, and at least eight units in other lower division courses in philosophy.

## PHIL 330. Metaphysics (4)

Critical examination of metaphysical problems such as reality, substance, qualities and relations, causality, universals and particulars, space, time, freedom and determinism. Prerequisite: Twelve units in lower division courses in philosophy.

## PHIL 340. Ethics (4)

Criṭcal analysis of fundamental ethical concepts, with readings from classical and contemporary writers in the fièld. (Formerly 301) Prerequisite: Twelve units in lower division courses in philosophy.

PHIL 34\%. Aesthetics I (4)
Critical examination of .theories of artistic creation and aesthetic experience. Analysis 'of principles of design and pattern. Analysis of the organizing structures of architecture, sculpture, and painting. Prerequisite: Twelve units in lower division cơurses in philosophy.

## PHill 347. Aesthetics 11 (4)

Analysis of the orgänizing structures of music, poetry, novel, and drama. Critical examination of principles of art criticism. Prerequisite: PHIL 346.

## PHIL 365. Oriental Philosophy (4)

An introductory and critical examination of the principal philosophical ideas and systems in Chinese and Indian philosophy. Prerequisite: Twelve units in lower division courses in philosóphy.

## PHIL 380. Plato (4)

Critical study of a selection of the Dialogues of Plato. Prerequisite: Twelve units in lower division courses in philosophy.

## Phil 381. Arisfotfe (4)

Critical study of selected works of Aristotle. Prerequisite: PHIL 380.

## PHIL 382. Letér Antiquity (4)

Critical study of Epicureanism, Stoicism, and Plotinus. Prerequisite: PHIL 381.

## PHIL 390. Deseartes (4)

Critical study of selected philosophical works of Descartes with emphasis on his epistemological and metaphysical systems. Prerequisite: Twelve units in lower division courses in philosophy.

## Philosophy

## PHIL 391. Spinozm (4)

Critical examination of the principal works of Spinoza. Prerequisite: Twelve units in lower division courses in philosophy.

## PHIL 395. Hume (4)

Critical examination of the principal works of Hume. Prerequisite: Twelve units in lower division courses in philosophy.

## PHIL 400. Mathematical togic I (4)

Propositional calculus, quantification theory, axiomatics and natural deduction, decision procedures. Introduction to some non-classical logics, such as intuitionistic logic, modal logic, deontic logic, doxastic logic. Indication of the significance of matherhatical logic for mathematics and computer science. Prerequisires: PHIL 110 or MATH 301 or consent of instructor. Same as MATH 400.

## PHIL 401. Mathematical Logic II (4)

Continuation of PHIL 400. Prerequisite: PHIL 400. Same as MATH 401.

## PHIL 405. Philosophy in Literature (4)

Exämination of philosophic attitudes or issues as expressed in poetry, novel, and drama: Aristotelian formism and classicism, Kantian idealism and romanticism, realism and naturalism, existentialism. Prerequisite: (English majors excepted) Twelve units in lower division courses in philosophy and senior standing.

## PHIL 410. Philosophy of History

Survey and philosophical analysis of the problems raised by history as a science. Prerequisite: (History majors excepted) Twelve units in lower division courses in philosophy and senior standing.

## PHIL 420. Theory of Science (4)

Analysis of logical and methodological problems in the sciences: theory construction, criteria of confirmation, the nature of explanation, the goal of prediction, or other selected topics. Prerequisites: PHIL 110 and PHIL 111 or PHIL 400 and PHIL 401 or a major in one of the sciences.

## PHL 430. Philosophy of Mind (4)

Critical reading of Freud, Austin, Ryle et al. on the concept of mind. Prerequisite: Twelve units in lower division courses in philosophy and senior standing.

## PHIL 498. Individual study (1-5)

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

# Physical Education and Health 

Richard D. Conant, Ph.D., Associate Professor, Chairman<br>Zaki I. Habashi, Ed.D., Associate Professor<br>James K. Hanny, M.A., Associate Professor<br>James C. Bowen, M.A., Assistant Professor<br>Dora L. Carter, M.S., Assistant Professor<br>Wayne Nelson, Ed.D., Assistant Professor

The Department of Physical Education and Health offers the degree Bachelor of Arts, Physical Education. It is 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.
3. Complete the major of not less than 28 upper division units and listed courses in supporting fields.
4. Complete an academic minor.
5. Consult with the major adviser during each advising period concerning requirements, changes in curriculum waivers, etc.

## DEGREE MAJOR IN PHYSICAL EDUCATION

## Prerequisites to the Major

Required courses in major field:
PHED 101, 102, 103. Fitness, Lifetime Activities, Team Activities, as approved by major adviser, 0-12 units $\dagger$
Required courses in supporting fields: $\ddagger$
HLTH 101. Healthful Living, 2 unics
PSYC 201. Introduction to Psychology, 4 units
ZOOL 102. Principles of Zoology or
BIOL 101. Principles of Biology, 5 units
One course in physical sciences as approved by major adviser, 5 units
One of the following series, 8 units

1. ANTH 205. Introduction to Human Origins

ANTH 206. Introduction to Cultural Anthropology
2. Two courses in sociology as approved by major adviser.
3. HIST 101, 102. Western Civilization I-II

One course in human anatomy and one course in human physiology as approved by major adviser, 10 units

[^25]
## Physical Education

The MajorUnitsRequired courses in supporting fields:
Two upper division courses in each of two of the following fields as ap-proved by major adviser: anthropology, history, psychology, sociologyor zoology 16
Required courses in major field:
PHED 310. Foundations of Physical Education ..... 4
PHED 480. Measurement and Evaluation in Physical Education ..... 4
PHED 484. Kinesiology ..... 5
PHED 487. Exercise Physiology ..... 4
PHED 495. Selected Topics in Physical Education ..... 3-5
One of the following: ..... 4
PHED 340. Motor Development
PHED 370. Sociological Factors in Physical Education
PHED 380. Psychological Factors in Physical Education
One of the following: ..... 4PHED 390. Philosophy of Physical EducationPHED 440. History of Physical Education
Total ..... 28-30
degree minor in physical education( 32 units approved by the minor adviser are required, includingat least 12 units in upper division courses)

## Lower Division

PHED 101, 102, 103. Fitness, Lifetime Activities, Team Activities, 0-6 units * One course in human anatomy as approved by major adviser, 5 units

## Upper Division

PHED 310. Foundations of Physical Education, 4 units
PHED 325. Analysis of Movement or
PHED 484. Kinesiology, 3-5 units
One course from the following, 3 units
PHED 320. Theory and Practice of Team Sports
PHED 321. Theory and Practice of Individual Sports
PHED 324. Theory and Practice of Dance
Additional courses to complete the 32 units as approved by minor adviser, 11 units

## TEACHING CREDENTIALS

Majors in physical education seeking elementary and secondary credentials must fulfill the following requirements:

1. Participate in at least two quarters of intercollegiate athletics.
2. Complete 11 additional units in health and physical education from the courses listed below and receive approval of the Department of Physical Education and Health as to subject matter competence.
[^26]
## Physical Education

At least two courses not to exceed 9 units from:
PHED 320. Theory and Practice of Team Sports, 3 units
PHED 321. Theory and Practice of Individual Sports, 3 units
PHED 324. Theory and Practice of Dance, 3 units
Additional courses to complete 11 units in health and physical education from:
PHED 200. Sports Officiating, 2 units
HLTH 201. First Aid and Safety, 3 units
HLTH 220. Health and Society, 3 units
HLTH 310. Prevention and Care of Athletic Injuries, 3 units
PHED 350. Recreation and Society, 4 units
RHED 360. Intramural Athletic Programs, 3 units
PHED 460. Administration and Organization of Physical Education, 4 units
PHED 490. Adapted Physical Education, 4 units
Secondary credential candidates must complete 9 units from the upper division courses listed above after obtaining the degree major in physical education.
3. Complete a degree major in physical education.
4. Complete requirements for credential as presented by the Education Department.

## PHYSICAL EDUCATION DIRECTORS IN INDUSTRY

Students seeking a career in industry as physical education directors are expected to complete 20 additional units beyond the minimum bachelor of arts degree requirements in physical education as approved by major adviser.

## COURSE DESCRIPTIONS

## PHYSICAL EDUCATION

## Lower Division

## PHED 101. Fitness (Men-Womon) <br> (1/2)

Promotion of fitness through participation in various physical exercises; understanding of biological, psychological, and sociological interpretation of physical activities.

PHED 102. Lifetime Activities (1/2)
Historical and cultural background of the lifetime activity and its nature. Fundamental skills, rules of the game, and participation in game situations. Activities to be designated for men and women from the following: archery, badminton, bowling, social dance, fencing, golf, gymnastics, personal safety and self-defense', swimming, tennis, water activities, and wrestling. May be repeated for credit. Prerequisite: PHED 101.

## PHED 103. Toam Activitios ( $1 / 2$ )

Historical and cultural background of the activity and its nature. Fundamental skills, rules of the game, and participation in game situations. Activities to be designated for men and women from the following: basketball, flag football, field hockey, soccer, softball, track, and volleyball. May be repeated for credit. Prerequisite: PHED 101.

## PHED 200. Sports Officiafing (2)

The study and interpretation of rules for various sports; procedures, mechanics and practice in officiating. May be repeaded for a total of 4 units.

## PHED 251. Intercollegiafe Athlefics (1/2)

To be selected from baseball, basketball, cross country, golf, tennis, track and volleyball. May be repeated for credit. Prerequisite: Consent of instructor.

## Physical Education

## Upper Division

## Phed 310. Foundations of Physical Education (4)

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.

PHED 320. Theory and Practice of Team Sports (3)
Development of fundamental skills and special abilities; a study of competencies, skills, and knowledge needed for teaching and organization. Rules and field experience in officiating techniques, game strategy, and tactics; evaluation techniques. Sports to be designated from the following: baseball, basketball, field hockey, football, soccer, sofrball, swimming, track and field, and volleyball. May be repeated for credit. Prerequisites: PHED 101, 102, 103, and 251.

## PHED 321. Theory and Practice of Individual Sports (3)

Development of fundamental skills and special abilities; a study of competencies, skills, and knowledge needed for teaching and organization. Rules and field experience in officiating techniques, game strategy and tactics; evaluation techniques. Individual sports to be designated from the following: archery, badminton, bowling, fencing, golf, and tennis. May be repeated for credit. Prerequisites PHED 101, 102,103 , and 251.

## PHED 324. Theory and Practice of Social Dance (3)

Development of dance materials for various age groups; a study of competencies, skills, and knowledge needed for teaching and organization. May be repeated for credit. Prerequisite: PHED 101.

## PHED 325. Analysis of Movement (3)

Mechanical laws and human movement; the efficient use of energy in physical activities as applied to daily life and the field of physical education. Prerequisite: One course in human anatomy,

## PHED 340. Motor Development (4)

Study of principles and theories of growth and development related to motor learning and performance in infancy, childhood, adolescence, adulthood, and old age. Prerequisite: PHED 310.

## PHED 350. Recreation and Sociaty (4)

Study of leisure in a technological society, recreational programs and recreational organizations.

## PHED 360. Intramural Athletic Programs (3)

The organization, administration and motivation of intramural activities for schools including practical field experience.

## PHED 370. Sociological Factors in Physical Education (4)

Principles and theories of sociology and anthropology which relate to individual and group motor performance. Prerequisite: SOCL 201.
PhED 380. Psychological Factors in Physical Education (4)
Psychological principles and theories relating to human movement: the state of the performer, perceptiual input to the performer, and motor learning. Prerequisite: PSYC 201.

## PHED 390. Philosophy of Physical Education (4)

Philosophical thoughts guiding the development of physical education from ancient time to modern time. Prerequisite: PHIL 101, 102, and 103.

PHED 440. History of Physical Education
(4)

Study of the historical, cultural, and theoretical background of physical education in primitive times, and ancient, medieval and modern societies. Prerequisites: HIST 101, 102, 103.

## PHED 460. Administration and Organization of Physical Education (4)

Current problems in administration and organization of physical education; guiding administrative policies and principles; selection, purchase, and care of equipment; maintenance of facilities; student leadership in physical education; evaluation of physical education programs. Prerequisite: PHED 310.

## PHED 480. Measurement and Evaluation in Physical Education (4)

Historical development of evaluation in physical education, measurement of physical fitness, social efficiency, and physical education skills. Prerequisite: MATH 160.

## PHED 484. Kinesiology (5)

Study of anatomical and physical laws applied to human movement. Analysis of motor skills related to physical education activities. (Lecture, 4 hours; laboratory, 3 hours) Prerequisites: One course in anatomy, one course in physiology, and consent of instructor.

## PHED 487. Exercise Physiology (

Study of different body systems and the effects of physical exercise on each system and physical performance. (Lecture, 3 hours; laboratory, 3 hours) Prerequisite: PHED 484.

## PHED A90. Adapted Physical Education (4)

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. Prerequisites: PHED 484 and 487.

## PHED 495. 'Selected Topics in Physical Education (3-5)

The topic of this course will vary according to students' interests and the availability of faculty members and will be mentioned in the class schedule. Prerequisite: Consent of instructor.
PHED 49E. Individual Study (3-4)
For students capable of independent work in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisites: Senior standing and consent of instructor.

HEALTH<br>Lower Division

## HLTH 101. Healthful Living (2)

Body structure and elementary physiology; formation of sound health habits and attitudes; development of an effective philosophy of personal health.

## HLTH 201. First Aid and Safety (3)

Effects, causes, and prevention of accidents in our society. Theory and practice of first aid for the injured. Course conforms to the American Red Cross standard and advanced first aid course.

## Physical Education

## HLTH 220. Health and Socioty (3)

Nature of man. Modern health knowledge; attitudes and practices essential to healthful living with emphasis on exercises, nutrition, fatigue, and mental health. Community health problems and services. Meets credential requirements in alcohol, narcotics, and safety.

## Upper Division

HLTH 310. Prevention and Care of Athletic Injuries (3)
Principles and practices of conditioning athletes, with emphasis on the prevention and care of athletic injuries, bandaging, therapy, health habits, and protective equipment. Prerequisite: One course in human anatomy.

## Physical Education Activity Course Credit

A maximum of 12 units in physical education activity courses may apply toward a degree.

# Physics and Physical Sciences 

Walter John, Jr., Ph.D., Professor of Physics, Chairman Carl Gatlin, Ph.D., Professor of Applied Sciences<br>Ervin H. Schwarcz, Ph.D., Professor of Physics<br>Vladimir S. Tuman, Ph.D., Professor of Physics<br>James M. Goodwin, Ph.D., Assistant Professor of Physics<br>Tai-Low Chow, Ph.D., Assistant Professor of Physics

The Department of Physical Sciences offers 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 broad and thorough understanding of the fundamentals of physics and to prepare him for a teaching career, industrial work, or graduate school.

The degree in physical sciences is intended primarily for the student interested in elementary or secondary teaching who desires a broad, rather than an intensive training in the physical 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 advisor in the Physical Sciences Department for proper selection of courses.

## 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 42 upper division units of physics.
4. Complete a minor to be selected in consultation with the major adviser. A minor in mathematics, chemistry or biology is recommended.

## DEGREE MAJOR IN PHYSICS

Prerequisites to the Major
Required courses in major field:
PHYS 221, 222, 223, 224. General Physics I-IV, 16 units
PHYS 231, 232, 233, 234. General Physics Laboratory I-IV, 4 units
Required courses in supporting field:
(These courses may also apply towards the minor)
MATH 119. Calculus with Analytic Geometry, 4 units
MATH 120, 221, 222. Calculus I-III, 12 units
MATH 321, 322. Ordinary Differential Equations I-II, 8 units
MATH 323. Partial Differential Equations, 4 units
CHEM 101, 102, 103. Principles of Chemistry I-III, 15 units
Recommended course:
Philosophy 110. Deductive Logic, 4 units
MATH 223. Calculus IV, 4 units
PHYS 412. History of Physical Science, 4 units

## Physics-Physical Scionces

The Major ..... Units
PHYS 311, 312. Analytical Mechanics I-II ..... 8
PHYS 322, 323. Fundamentals of Electrodynamics I-II ..... 8
PHYS 372. Modern Physics ..... 3
PHYS 373, 374. Quantum Mechanics I-II ..... 8
PHYS 400. Advanced Laboratory ..... 4
(Must be repeated for at least four units. PHYS 330, Electronics, may besubstituted for one unit of PHYS 400:)
PHYS 451, 452. Thermal and Statistical Physics ..... 8
A minimum of three units of upper division electives, which may include:CHEM 461, 462, 463. Physical Chemistry 1-IIIASTR 301, 302, 303. Inttoduction to Space Sciences3
Total ..... 42
Physics majors are required to earn a grade of C or better in all required majorcourses and their prerequisites.
Degree Minor in PhysicsConsists of 27 units in physics as approved by the minor advisor; to include atleast 12 units in upper division.
REQUIREMENTS FOR BACHELOR OF ARTS, PHYSICAL SCIENĊES
Physical science majots 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 39 upper division units.
4. Complete a minor to be selected in consultation with the major ad-viser. A Minor in mathematics or biology is recommended.
dEgree major in physical sciences
Prerequisites to the Major
Required courses in major field:
PHYS 221, 222, 223, 224. General Physics I-IV, 16 units
PHYS 231, 232, 233, 234. General Physics Laboratory I-IV, 4 units
CHEM 101, 102, 103. Principles of Chemistry I-III, 15 units
CHEM 211. Analytical Chemistry I, 4 units
One of the following as approved by major adviser, 4 units
ASTR 200. Descriptive Astronomy
GEOL 200. Principles of Geology I
Required courses in supporting field:
MATH 119. Calculus with Analytic Geometry, 4 units
MATH 120, 221, 222. Calculus I-III, 12 units
MATH 321. Ordinary Differential Equations I, 4 units
Recommended courses
Philosophy 110. Deductive Logic, 4 units
MATH 322. Ordinary Differential Equations II, 4 units
MATH 323. Partial Differential Equations, 4 units

## Physics-Physieal Scionces

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The Major
One of the following sequences:
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PHYS'311, 312. Analytical Mechanics I, II
PHYS 322, 323. Electromagnetism I, II PHYS 373, 374. Quantum Mechanics I, II PHYS 451, 452. Thermal and Statistical Physics I, II ..... 8
PHYS 372. Modern Physics ..... 3
Either group 1 or group 2:

1. CHEM 461. Physical Chemistry I (3 units)
CHEM 412. Analytic Chemistry II (4 units)
CHEM 321, 324. Organic Chemistry I (4-5 units)
2. CHEM 321, 322, 323, 324, 325, 326. Organic Chemistry I-III (12-15 units) 11-15
Additional upper division courses in the physical sciences as approved by
```13-17
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Total ..... 39

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Physical sciences majors are required to earn a grade of C or better in all required major courses and their prerequisites.
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## TEACHING CREDENTIALS

Majors in physical sciences seeking elementary and secondary credentials must fulfill the following requirements:

1. Degree major in physical sciences.
2. Secondary credential candidates must complete 9 units in courses in the physical sciences as postbaccalaureate work and receive approval of Department of Physical Science as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## PREPARATION FOR GRADUATE STUDY

It is recommended that the physical science major who intends to continue study on the graduate level complete a minimum of one year, or the equivalent, of college French, German, or Russian.

## degree minor in physical sciences

Consists of 22 units in physical sciences as approved by the minor advisor to include 12 units in the upper division.

## COURSE DESCRIPTIONS

## PHYSICS

Lower Division
PHYS 100. Introduction to Natural Sciences (5)
A non-mathematical descriptive survey of the basic concepts in physics from Newton to modern scientific theories. (Lecture, 3 hours; discussion, 1 hour; laboratory, 3 hours) No prerequisites.

## PHYS 101. Mechunics and Heut (5)

Force, equilibrium, uniform and accelerated motion, work, momentum, and energy; properties of matter, heat, and temperature. Recommended for general students and for students preparing for biology or medicine. (Lecture, 3 hours; discussion, 1 hour; laboratory, 3 hours) Prerequisite: algebra, plane geometry, and trigonometry at the high school level.

## Physics-Physical Sciences

## PHYS 102. Eleetricity and Oprics (5)

Electric charges and currents, magnetism, induced currents; wave motion, interference, diffraction, geometrical optics. (Lecture, 3 hours; discussion, 1 hour; laboratory, 3 hours) Prerequisite: PHYS 101.

## PHYS 103. Modern Physics (5)

Basis of modern atomic theory, structure and properties of atoms, the nucleus and radioactivity. (Lectures, 3 hours; discussion, 1 hour; laboratory, 3 hours) Prerequisite: PHYS 102.

PHYS 221. General Physics I (4)
General physics with calculus, for scientists and engineers. Mechanics, energy, momentum and angular momentum. Linear and rotational dynamics. Electricity, magnetism, heat, wave motion, modern physics. (Lecture, 3 hours; discussion, 1 hour) Prerequisite: Concurrent enrollment in MATH 120.

## PHYS 222. General Physics II (4)

Continuation of PHYS 221. Prerequisite: PHYS 221.
PHYS 223. General Physies III (4)
Continuation of PHYS 222. Prerequisite: PHYS 222.
PHYS 224. General Physics IV (4)
Continuation of PHYS 223. Prerequisite: PHYS 223.

## PHYS 231. General Physics Laboratory I (1)

Laboratory to accompany PHYS 221. Prerequisite: PHYS 221 or concurrent enrollment in PHYS 221.

## PHY5 232. General Physics Laboratory II (1)

Laboratory to accompany PHYS 222. Prerequisite: PHYS 222 or concurrent enrollment in PHYS 222.

## PHYS 233. General Physics Laboratory III (1)

Laboratory to accompany PHYS 223. Prerequisite: PHYS 223 or concurrent enrollment in PHYS 223.

## PHYS 234. General Physics Laboratory IV (1)

Laboratory to accompany PHYS 224. Prerequisite: PHYS 224 or concurrent enrollment in PHYS 224.

## Upper Division

PHYS 311. Analytical Mechunics 1 (4)
Basic principles of mechanics with applications to central force and harmonic oscillator problems; study of statics and dynamics of rigid bodies with the aid of Lagrangian and Hamiltonian equations. (Lecture, 3 hours; discussion, 1 hour) Prerequisites: MATH 321 and PHYS 221.

## PHYS 312. Analytical Mechanics II (4)

Continuation of PHYS 311. Prerequisite: PHYS 311.
PHYS 322. Electromagnetism I (4)
Fundamental principles, their application to both direct current and alternating current circuit theory. Introduction to Maxwell's electromagnetic theory of light and radio waves. (Lecture, 3 hours; discussion, 1 hour) Prerequisites: MATH 321 and PHYS 222.

## PHYS 323. Electromagnetism II (4)

Continuation of PHYS 322. Prerequisite: PHYS 322.

PHYS 325. Electromagnetism and Theory of Relativity (3)
Classical mechanics, waves and particles, Maxwell theory of electromagnetic waves, Michelson-Morley Experiment, the Lorentz transformation, experimental tests of the general relativity. Prerequisites: PHYS 323 and MATH 321.

PHYS 330. Introduction to Electronics I (3)
Fundamental principles and theory of rectifiers; amplifiers; oscillators, oscilloscope and other resonant circuits and A.C. bridges. Lecture, 2 hours; laboratory, 3 hours) Prerequisites: PHYS 222 or concurrent enrollment or consent of instructor.

PHYS 331. Introduction to Electronics II (3)
Continuation of PHYS 330. (Lecture, 2 hours; laboratory, 3 hours) Prerequisite: PHYS 330.

PHYS 372. Madern Physics (3)
Significant developments in physics arising from the discovery of the electron X-rays, and radioactivity. Prerequisites: MATH 222 and PHYS 323.

PhYs 373. Quantum Mechanics I (4)
Development of Schrödinger'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 problems. Application to atomic phenomena. Prerequisite: PHYS 372 or consent of instructor.

PHYS 374. Quantum Mechanics II (4)
Continuation of PHYS 373. Prerequisite: PHYS 373.
PHY5 400. Advanced Physics Laboratory (1)
Fundamental 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 412. History of Physical Sciences (4)

Development of the physical sciences from beginning to present; influence of science upon developments of philosophy, technology, culture, and civilization. Prerequisites: Minimum of 8 units in the physical sciences, or consent of instructor.

PhYS 435. Nuclear Physics (3)
Elements of nuclear structure, radioactivity, interaction of nuclear radiations with matter, detection of nuclear radiation, fission and fusion, nuclear models. (Lecture, 3 hours) Prerequisites: PHYS 372, and PHYS 373, or consent of instructor.

## PHYS 450. Elements of Astromechanics (3)

The kinematics of plane curvilinear motion and the geometry of conic sections, Kepler's laws and Newton's law of gravitation, the two body problem, orbital velocity, size and shape of orbits, orbits of least energy, analysis of double star orbits. Prerequisites: ASTR 200, PHYS 311 and 312.

## PHYS 451. Thermal and Statistical Physics I (4)

Thermodynamics and statistical mechanics. A unified approach based on a microscopic description using quantum states following the approach of Gibbs, Fermi, Bose and "Classical" systems are discussed, with applications to standard and current topics. Prerequisite: Concurrent enrollment in PHYS 373 or consent of instructor.

PHYS 452. Thermal and Statistical Physies II (4)
Continuation of PHYS 451. Prerequisire: PHYS 451 or consent of instructor.

## PHYS 455. Solid State Physics (3)

Crystal structure, empirical classification, metal crystals, molecular crystals. Thermal, electrical, magnetic properties of crystals. Free electron model of metals, band theory of solids. (Lecture, 3 hours) Prerequisite: PHYS 373.

## PHYS 471. Introduction to Theoretical Physies I (3)

Fourier series and Fourier integrals. General theory of orthonormal functions.
Vibrating strings and membranes. Viscous and inviscid fluid flow. Heat flow and Green's theorem. Tensor analysis with application to elasticity and relativity. Prerequisites: PHYS 312, 323, and MATH 321.

## PHYS 472. Introduction to Theorotical Physics II (3)

Continuation of PHYS 471. Prerequisite: PHYS 471.

## PHYS 473. Introduction to Therootical Physics III (3)

Continuation of PHYS 472. Prerequisite: PHYS 472.

## PHYS 480. Theory of Elasticity and Mechanical Vibrations! (4)

Stress tensor, strain tensor, stress strain relations, applications of the theory of elasticity. Theory of elasticity of porous medium, elastic disturbance and propagation of elastic waves with applications to seismic waves. Prerequisites: PHYS 312.

## PHYS 481. Theory of Elasticity and Mechanical Vibrations II <br> Continuation of PHYS 480. Prerequisite: PHYS 480.

PHYS 491. Optics and Waves (3)
Principles of geometrical optics. Image formation by thick and thin lenses. Aberrations. Optical instruments such as the camera, telescope, and microscope. Principles of physical optics. Inference and diffraction. Prerequisites: PHYS 223 and MATH 321 or consent of instructor.

PHYS 495. Selected Topics in Physics (Topics to be specified in the Class Schedulo) (1-5)
Development of a selected branch of physics. Topics may vary each term. They may be repeated for credit. Prerequisite: Consent of instructor.

PHYS 498. Individual Study (1-5)
For students capable of independent work in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## GRADUATE

PHYS 598. Individual Study (T-5)
For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## ASTRONOMY Lower Division

ASYR 200. Descriptive Astronomy (4)
Topics in development of astronomy: solar system and stars. (Lectures, 4 hours)

## ASTR 201. Asfronomy Lab (1)

Telescope observations of planets, their satellite, and sunspots. Optical experiments related to astronomy. Concurrent enrollment in ASTR 200 is required. (Lab., 3 hours)

## Upper Division

## ASTR 301. Introduction to Space Sciences I (4)

Applied astronomy and general problems related to space and the atmosphere, and evaluation of knowledge and information gained by means of space vehicles. (Lecture, 3 hòurs; discussion, 1 hour) Prerequisites: ASTR 200, PHYS 201 and 202 , or consênt of instructor.

ASTR 302. Introdučtion to Space Sciences II (4)
"Continuation of ASTR 301. Includes guidance, tracking, information systems, and application of satellite information to meteorology, communications, and navigation: (Lěcture; 3 hours; discussion, 1 hour) Prerequisites: ASTR 301, PHYS 201 and 202 , or consent of instructor.

ASTR 303. Introduction to Spaces Sciences III (4)
Continuation of ASTR 302. Study of man in space: Project Mercury, Project Gemini, Project Apollo. Life support in space and physiological aspects of space flight. (Lecture, 3 hours; discussion, 1 hour) Prerequisites: ASTR 302, PHYS 201 and 202 , or consent of instructor.

## GEOLOGY <br> Lower Division

## GEOL 200. Principles of Geology I

-Study of rocks, minerals, fossils, geologic history, and evolution of life on earth. (Lecture, 3 hours) 1 or 2 field trips; laboratory approximately 2 hours per week, depending on number of field trips.
GEOL 201. Principles of Geology II (4)
Continuation of GEOL 200. Condensed survey of the structure and materials that compose the outer portion of the earth, and the geologic processes responsible for sculpturing the earth of today. (Lecture, 3 hours; laboratory, 3 hours) Prerequisite: GEOL 200 or consent of instructor.

## cEOL 22i. Descriptive Minoralogy (3)

Physical and chemical properties of minerals; deals with description and determination of minerals on basis of their physical properties. (Lectures, laboratory, and field tips) Prerequisite: CHEM 102 or equivalent.

Political Science<br>Paul F. Magnelia, Ph.D., Associate Professor, Chairman<br>Tosh Lee, Ph.D., Assistant Professor<br>Richard Mendes, M.A., Assistant Professor<br>Gary. Shaw, Ph.D., Assistant Professor<br>John T. Wold, M.A., Assistant Professor

The Department of Political Science offers the degree Bachelor of Arts, Political Science. The primary objective of the major in political science is to provide a core for a liberal arts education that will prepare the student to assume and execute his responsibilities intelligently as a citizen in a consciously self-governing community. The major program also provides appropriate preprofessional training for the student who intends to enter law or graduate school or study for a teaching credential.
REQUIREMENTS FOR THE BACHELOR OF ARTS, POLITICAL SCIENCEPolitical 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 36 upper division units.
4. Completion of a minor is not required.
DEGREE MAJOR IN POLITICAL SCIENCE
Prerequisites to the Major
Required courses in the major field:
PSCI 202. American Government, 4 units
PSCI 220. Introduction to Political Science, 4 units or
PSCI 222. Modern ISMS, 4 units
Required courses in supporting fields: three of the following.
ANTH 206. Introduction to Cultural Anthropology ECON 250. Principles of Economics PSYC 201. Introduction to Psychology SOCL 201. Introduction to Sociology

## The Major

One introductory course in statistics.
Three courses required in supporting fields as approved by major adviser.
Required courses in Political Science Units

PSCI 321. Ancient and Medieval Political Thought or
PSCI 322. Modern Political Thought

PSCI 331. International Relations
Courses in political science as approved by major adviser _-_ 20


## Political Scionce

## degree minor in political science

Twenty-four units approved by the minor adviser are required, including att least 16 units in upper division courses.

## TEACHING CREDENTIALS

Majors in political science for elementary and secondary credentials must fulfill the following requirements:

1. Degree major in political science.
2. Secondary credential candidates must complete 9 units in courses in political science as postbaccalaureate work and receive approval of the Department of Political Science as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## COURSE DESCRIPTIONS

## Lower Division

PSCI 202. American Government (4)
Analysis of the structure, powers, and functions of American Government through the problem approach. Meets U.S. Constitution and California State and Local Government requirements for General Education. (Formerly 101)

PSCI 220. Introduction to Political Science (4)
To examine and to ascertain various concepts and theories of social and political significance. Emphasis is placed on broadening the understanding of political science as a discipline. (Recommended for majors) Prerequisite: PSCI 202
psct 222. Modern ISMS (4)
Survey̆ of modern ideologies, including Democracy, Communism, Nationalism and Fascism. (Formerly 213)

## Upper Division METHODOLOGY

Pșci 326. Scope and Methods of Political Scionce (4)
An introduction to political analysis with emphasis on the focus and the requirements of empirical political research. Prerequisite: PSCI 202, majors only.

PSCI 420. Survey Research (4)
Techniques in the systematic collection of individual data. Prerequisite: PSCI 326

## COMPARATIVE POLITICAL SYSTEMS

## PSCI 311. European Political Systems (4)

A comparative analysis of several of the political systems extant in Western Europe. Prerequisite: PSCI 202

## PSCI 312. Comparative Politics (4)

Creates a frame of reference for the analysis of political systems in diverse social settings. Prerequisite: PSCI 202

## psa 314. Comparafive Polities of Latin America (4)

An analysis of the political systems of Latin America; emphasis on political change and development. Prerequisite: PSCI 202

## PSCI 315. Social and Political Forces of Southoast Asia (4)

Survey and analysis of Southeast Asia political systems. Emphasis is placed on examining the various social and political forces that shape the political change and political development of that region.

## Political Science

PSCI 317. Comparative Politics: U.S.S.R. (4)
An analysis of government, politics, and political development in the U.S.S.R. Prerequisite: PSCI 202

## PSCI 318. Comparative Communist Systems (4)

A comparative analysis of ruling Communist Parties outside the U.S.S.R. Emphasis will be placed on Communism as a revolutionary, modernizing ideology. Prerequisite: PSCI 202

PSCI 411. Revolution and Political Power in Communist China (4)
To examine the political background through which the Communist regime took power in China, to analyze the goal of the State, the structure of the leadership, and the degree to which the Communist regime has succeeded in modernizing and developing the political system. Prerequisite: PSCI 202

PSA 412. Political Structure and Political Dynamics of Modern Japan (4)
A study of the political structure and the political dynamics of Japan in contemporary context. Emphasis is placed on broad examination of the Japanese party politics, public opinion, voting behavior, the new middle class, and the foreign relations of Japan in the 1970's. Prerequisite: RSCI 202

PSCI 414. Politics of the Underdoveloped Areas (4)
Comparative analysis of nation-building as a political process. Emphasis is placed on the political development in the underdeveloped countries of Asia, Africa, Latin America, and the Middle East. Prerequisite: PSCI 202

POLITICAL THEORY

## Pscl 321. Ancient and Medieval Political Thought (4)

Historical development of political philosophy from ancient times to seventeenth century. Prerequisite: PSCI 202

PSCI 322. Modern Political Thought (4)
Pólitical thought from seventeenth century to present, with emphasis on such European philosophers as Hobbes, Locke, Rousseau, and Marx. Prerequisite: PSCI 202

PSCI 323. American Political Thought (4)
Main trends of American political thinking from colonial times to present. Meets U.S. Constitution requirement for General Education. Prerequisite: PSCI 202

PSCI 324. Problems in Political Theory (4)
Analysis and discussion of selected issues and/or systems in Western political thought. Prerequisite: PSCI 202. May be repeated for a toptal of 9 units.

## INTERNATIONAL RELAYIONS

PSCI 331. International Relations (4)
Introduction to the elements of international politics. Prerequisite: PSCI 202
PSCI 332. International Organization (4)
Analysis and evaluation of the development, functions, powers and future of international organization. Prerequisite: PSCI 202

## PSCI 333. System and Process in International Politics (4)

Systematic study of the abstract, theoretical, and semiformal aspects of international politics. Prerequisite: PSCI 331.

## PSCI 334. Contemporary Problems in International Politics (4)

Analysis of the communist challenge to the non-communist world, the Western response to the challenge of communism, role of middle powers and small states, and the United Nations. Prerequisite: PSCI 202
PSCI 336. Readings in International Politics (4)
Analysis and evaluation of a number of the significant writings in International Politics. Prerequisite: PSCI 331.

## PSCI 433. American Foreign Policy (4)

United States governmental machinery for conduct of American foreign relations, and analysis of twentieth century foreign policy with emphasis on post-World War II period. Background in recent American history desirable but not required. Prerequisite: PSCI 202

## PSCI 434. Soviet Foreign Policy

Analytical and historical examination of the origins and development of Soviet foreign policy. Emphasis on the role of communist ideology, Russian tradition, and politics of the Soviet Union as factors affecting policy. Prerequisite: PSCI 202

## PSCI 435. Inter-American Affairs (4)

A study of political and economic relations among the countries of the Western Hemisphere with particular emphasis on U.S. relations with other hemispheric nations. Such topical items as the Alliance for Progress, the Monroe Doctrine, the Organization of American States, the Rio Treaty are included in the course. Prerequisite: PSCI 202

## amERICAN POLITICS

## PSC1 351. Political Partios (4)

Critical analysis of the political party as a part of the process of government: party organization and activities, campaign methods, and party responsibility. Prerequisite: PSCI 202

## PSCI 353. The Chief Executive (4)

A study of the chief executive at all levels of American government. The roles, responsibilities, powers and limits of the president, governors, and mayors are analyzed, and the centrality of the executive in the American political system is emphasized. Prerequisite: PSCI 202

PSCl 354. Legislative Process (4)
Leadership, voting, and work groups in the legislature; legislative-executive relations. Prerequisite: PSCI 202

## PSCI 356. Civil Liborties (4)

A study of the development and scope of civil liberties in the United States. Emphasis is placed on judicial review and enforcement of individual rights in such areas as speech; religion; criminal procedures; public school desegregation; voting; personal security; and legislative apportionment. Prerequisite: PSCI 202

## PSCI 370. Public Administration (4)

An introductory study of the principles and problems of administrative organization. Specific areas of examination include: the relationship between bureaucracy and democracy; organization theory; personnel administration; fiscal management, and regulatory administration. Prerequisites: PSCI 202 and 222.

## PSCI 450. Constitutional Law (4)

The study of the role of law in a society; the nature of law; development of the various lines of precedence in the specific areas of commerce, due process (procedural and substantive), Nation-State relations, and the powers and limits of the national government. Prerequisite: PSCI 202

## Political Science

## PSCI 452. Interest Groups (4)

A study of the development and role of private and voluntary association in the operation of American government. Prerequisite: PSCI 202

PSCI 455. Urban Politics (4)
A study of urban politics and organization, including the social and economic problems of cities, and possible remedial actions of the state and federal government. (Formerly 361) Prerequisite: PSCI 202

## PSCI 457. The Judicial Process <br> (4)

A study of judicial decision making and of the organization of the American judiciary. Emphasis is placed on the federal courts. Prerequisite: PSCI 202

## POLITICAL DYNAMICS

## PSCI 362. Public Opinion and Voting Eehavior (4)

American voting behavior, political attitude and opinion formation. Prerequisite: PSCI 202

## PSCI 422. Political Psychology (4)

The study of political man as an individual, and how he develops, maintains, and changes his attitudes toward political phenomena. Prerequisite: PSCI 202

## PSCI 460. Political Behavior (4)

An analysis of the political manifestations of individual and group decisionmaking. (Formerly 360) Prerequisite: PSCI 202

## PSC1 461. Polifical Socialization (4)

An examination of the major variables and processes related to political socialization. Prerequisite: PSCI 202

## PSCI 462. Political Change: A Study of Revolution (4)

A systematic and analytic study of revolution as one form of political change. (Formerly 421) Prerequisite: PSCI 202

## PSCI 494. Minority Politics (4)

An examination of political and social problems facing minority groups in the United States. Attention will be focused on the sources and manifestations of inequalities with special emphasis placed on analysis of recent innovative attempts to reduce discrimination.

## PSCI 495. Selected Topics in Political Science (Topics to be specified in the Class Schedule) (1-5)

Development of a selected branch of political science. Topics vary each term. May be repeated for credit. Prerequisite: Consent of instructor.

## PSCl 496. Senior Seminar (4)

Topic to be selected from one of the 5 major areas: Political Theory, Comparative Systems, International Relations, American Politics, Political Dynamics. May be repeated for a maximum of 8 units. Prerequisite: Consent of instructor.

## PsCA 498. Individual Study (1-5)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

# Psychology 

Douglas A. Spanier, Ph.D., Associate Professor, Chairman<br>W. Mack Goldsmith, Ph.D., Associate. Professor<br>V. Kenneth Shrable, Ph.D., Associate Professor Stanley E. Sherman, Ph.D., Assistant Professor<br>William A. Buchanan, Ph.D., Assistant Professor Judith S. Nelson, Ph.D., Assistant Professor Frank C. Eichensehr, M.A., Assistant Professor

The Department of Psychology offers the Bachelor of Arts, Psychology. 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, or plan to enter a profession or occupation in which a strong background in psychology is necessary, (2) wish to prepare for graduate work in psychology.

The Division of Arts and Sciences also offers a Bachelor of Arts, Social Sciences, with an interdepartmental major in psychology and any other discipline 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 38 upper division units, as approved by the major adviser.
4. Completion of a minor or a special program in lieu of a minor; prior approval of the major adviser must be secured before undertaking either option.
5. Seniors are required to take the Undergraduate Record Examination the quarter in which they graduate.

## DEGREE MAJOR IN PSYCHOLOGY

## Prerequisites to the Major

PSYC 201. Introduction to Psychology, 4 units or equivalent
PSYC 202. Introduction to Psychological Methods, 4 units or equivalent
Required courses in supporting fields:

1. ANTH 206. Introduction to Cultural Anthropology, 4 units or
SOCL 201. Introduction to Sociology, 4 units
2. BIOL 101. Principles of Biology, 5 units
or
ZOOL 102. Principles of Zoology, 5 units
3. MATH 160.* Statistics, 4 units
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## Psychology

Major Requirements Units
PSYC 304. Experimental Methods in Psychology I ..... 5
PSYC 305. Experimental Methods in Psychology II ..... 5
PSYC 496. Senior Seminar ..... 4
or PSYC 497. Advanced General Psychology
Upper division courses in psychology as approved by major adviser ..... 24
Total ..... 38
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, 4 units
PSYC 316. Introduction to Psychological Testing, 4 units
PSYC 335. Introduction to Abnormal Behavior, 4 units
PSYC 379. Introduction to Counseling Theory, 4 units
Group II
PSYC 309. Comparative Animal Behavior, 4 units
PSYC 350. Introduction to Perception and Cognition, 4 units
PSYC 370. Introduction to Learning and Motivation, 4 units
Group III
PSYC 331. Introduction to Social Psychology, 4 units
PSYC 332. Introduction to Personality, 4 units
DEGREE MINOR IN PSYCHOLOGY

1. Complete prerequisites to minor.
2. Twenty units in psychology approved by minor advisor, including at least 16units in upper division courses.
Prerequisites to Minor:
PSYC 201. Introduction to Psychology or equivalent, 4 units
PSYC 202. Introduction to Psychological Methods or equivalent, 4 units
Areas of possible concentration in major or minor:
Area I-Learning and Motivation
PSYC 370. Introduction to learning and Motivation, 4 units
PSYC 471. Theory and Research in Learning, 4 units
PSYC 478. Theory and Research in Motivation, 4 units
Area II-Comparative and Physiological Psychology
PSYC 309. Comparative Animal Behavior, 4 units
PSYC 310. Introduction to Physiological Psychology, 4 units
PSYC 409. Theory and Research in Comparative and Physiological Psychol- ogy, 4 units
Area III-Personality and Social Psychology
PSYC 331. Introduction to Social Psychology, 4 units
PSYC 332. Introduction to Personality, 4 units
PSXC 432. Theory and Research in Personality, 4 units
PSYC 481. Theory and Research in Social Psychology, 4 units
Area IV-Clinical and Testing
PSYC 313. Human Development, 4 units
PSYC 314. Mental Deficiency, 4 units
PSYC 316. Introduction to Psychological Testing, 4 units
PSYC 335. Introduction to Abnormal Behavior, 4 units
PSYC 379. Introduction to Counseling Theory, 4 units
PSYC 436. Theory and Research in Clincal and Abnormal Psychology, 4units
PSYC 416. Advanced Tests and Measurement, 4 units
PSYC 491. Correlation and Theory of Tests, 4 units

## Psychology

Area V-Perception and Cognition
PSYC 350. Introduction to Perception and Cognition, 4 units
PSYC 450. Theory and Research in Perception, 4 units
PSYC 451. Theory and Research in Cognition, 4 units
Area VI-Research and Systems
PSYC 402. History of Psychology, 4 units
PSYC 490. Psychological Research Design, 4 units
PSYC 495. Seminar on Special Topics in Psychology, 4 units

## TEACHING CREDENTIALS $\dagger$

Majors in psychology for elementary and secondary credentials must fulfill the following requirements:

1. Degree major in psychology.
2. Secondary credential candidates must complete 9 units in courses in psychology as postgraduate work and receive approval of psychology as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.
Minors in psychology seeking elementary and secondary credentials must fulfill the following requirements:
4. Degree minor in psychology; plus additional courses in psychology to total a minimum of 30 units, as recommended by the minor adviser and approved by the credential adviser.
5. Secondary credential candidate must receive approval of the minor adviser as to the subject matter competence.

## PROPOSED MASTER'S DEGREE

A master's degree program in psychology is in preparation. Students interested in this program should consult the Department of Psychology for complete details.

## COURSE DESCRIPTIONS

## Lower Division

## PSYC 201. Introduction to Psychology (4)

Scientific study of human behavior. This course or its equivalent is a prerequisite to all other 200 level courses in psychology.

## PSYC 202. Introduction to Psychological Methois (4)

Techniques and procedures for making observations in a variety of psychological situations. Psychological methods demonstrated through topics of current research and application. Prerequisite: PSYC 201 or equivalent. Required for all 300 level courses.

## PSYC 203. Psychology of Marriage (4)

Psychological and ethical aspects of courtship, marriage and family life. (Formerly 300). Prerequisite: PSYC 201 or equivalent.

## P5YC 221. Psychology of Adjustment (4)

The principles of personal adjustment; maintenance and enhancement of mental health. Prerequisite: PSYC 201.

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## Psychology

## PSYC 241. Applied and Industrial Psychology (4)

Application of psychological principles to business and industry, as well as to other fields. (Formerly 205 and 441) Prerequisite: PSYC 201.

## Upper Division

PSYC 304. Experimental Methods in Psychology I (5)
Quantitative and experimental methodology with emphasis on psychophysical methods and measurement. Includes understanding and performing of basic experiments. (Lecture 4 hours, Lab 3 hours) Prerequisites: PSYC 202, MATH 160 or equivalent.

## PSYC 305. Experimental Methods in Psychology II (5)

Continuation of PSYC 304. Psychological scaling, techniques of data control, design and evaluation of experimental procedures. (Lecture 4 hours, Lab 3 hours) Prerequisite: PSYC 304.

## PSYC 309. Comparative Animal Behavior (4)

Study of behavior systems in animals, including man, with reference to major psychological constructs. Prerequisite: PSYC 202. BIOL 101 is recommended.

## PSYC 310. Introduction to Physiological Psychology (4)

Relationship between behavior and physiological processes, particularly neurophysiological processes. Prerequiistes: PSYC 202. ZOOL 323 is recommended.

## PSYC 313. Human Development (4)

The psychology of development: infancy, childhood, adolescence, and maturity. Prerequisite: PSYC 202.

## PSYC 314. Mental Deficiency (4)

The etiology, diagnosis and remediation of mental deficiency. (Formerly 413) Prerequisite: PSYC 313.

## PSYC 316. Introduction to Phychological Tosting (4)

Principles of psychological testing presented in a non-technical way. Descriptions of representative types of tests in common use. Prerequisite: PSYC 202.
PSYC 330. Social Psychology Laboratory
Laboratory experiments to demonstrate the variety of methods and content areas in social psychology such as social reinforcement and attitude change, impression formation, deviation and conformity. Prerequisite: Concurrent enrollment in PSYC 331 or permission of instructor.
PSYC 331. Introduction to Social Psychology (4)
Interpersonal relations including social attitudes, opinions; social structure and group dynamics. (Formerly 431) Prerequisite: PSYC 202.

## PSYC 332. Introduction to Personality (4)

Introduction to concepts of normal personality functioning. (Formerly 321) Prerequisite: PSYC 202.

PSYC 335. Introduction to the Study of Abnormal Eehavior (4)
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 350. Introduction to Perception and Cognition (4)

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.

PSYC 370. Introduction to Learning and Motivation (4)
Basic phenomena of learning and motivation such as: instrumental and classical conditioning, stimulus generalization, verbal learning, transfer and retention, drives, rewards, punishment. Prerequisite: PSYC 202.
PSYC 379. Introduction to Counseling Theory (4)
Introduction to major theories of counseling. Demonstrations and review of current literature. (Formerly 477) Prerequisite: PSYC 331, or 332, or 335.

## PSYC 402. History of Psychology (4)

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 409. Theory and Research in Comparative and Physiological Psychology (4)

Psychophysiological theory and research as it relates to comparative study of animal behavior, including man. Prerequisites: PSYC 304,309 and 310 or consent of instructor.

## PSYC 413. Early Child Development (4)

Psychological development during the first five years of life: emphasis on learning and perceptual-motor development. Prerequisite: PSYC 313 or consent of instructor.

## PSYC 416. Advanced Tests and Measurements (5)

Advanced concepts of psychological measurement as applied to the evaluation and use of psychological tests with emphasis on group tests. Prerequisites: PSYC 304 and 316. (Lecture 4 hours, Laboratory 3 hours)

## PSYC 432. Theory and Research in Personality (4)

Theory and research in the field of personality. Prerequisite: PSYC 332.
PSYC 436. Theory and Research in Clinical and Abnormal Psychology ( 4 )
Theory and research in clinical and abnormal psychology with emphasis on diagnostic and treatment systems. Prerequisites: PSYC 313 or 332 and PSYC 316, 335.

PSYC 450. Theory and Research in Perception (4)
Classical and contemporary theories and problems in perception. Prerequisite: PSYC 304 and 350.

PSYC 451. Theory and Research in Cognition (4)
Theories and problems in attention and thinking such as: consciousness, psycholinguistics, creativity, decision making. Prerequisites: PSYC 304 and 350. PSYC 305 is recommended.

PSYC 471. Theory and Research in Learning (4)
Classical and contemporary theories on research in the learning process. Prerequisites: PSYC 304 and 370 . PSYC 305 is recommended.

PSYC 478. Theory and Research in Motivation (4)
Theories and major research areas in motivation. Prerequisites: PSYC 304 and 370.

## PSYC 481. Theory and Research in Social Psychology (4)

Advanced study of social behavior emphasizing theories and research in social perception, social motivation, social attitudes. Prerequisite: PSYC 331.

## Psychology

## PSYC 490. Psychological Research Design (4)

Application of quantitative inferential procedures to the design of psychological research. Prerequisites: PSYC 305 and senior standing.

PSYC 491. Correlation and Test Theory (4)
Correlation and factor analytic concepts and procedures as they apply to evaluation of psychological data and construction of tests. Prerequisites: PSYC 305 or consent of instructor. PSYC 416 is recommended.

## PSYC 495. Selected Topics in Psychology (I-5)

Development of a specific area in psychology. Topics will vary depending on instructor. May be repeated for a total of 8 units. Prerequisite: Consent of instructor. PSYC 304 and one psychology course at 400 level are recommended.

## PSYC 496. Senior Seminar (4)

Review and discussion of current literature on general psychological topics. Prerequisites: PSYC 305 and senior standing.

## PSYC 497. Advanced General Psychology (4)

Review of the major content areas of psychology. Synthesis of concepts, facts and methods studied in specialized upper division courses. Prerequisites: PSYC 305 and senior standing.

PSYC 498. Individual Study (1-5)
For students capable of independent work and desirous of undertaking specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## Graduate

## PSYC 513. Advanced Human Development (4)

Empirical research on theoretical constructs in human development. Prerequisites: PSYC 313 or equivalent and four upper division courses in psychology.

## PSYC 532. Advanced Theory of Personality . (4)

Research in personality structure and dynamics. Prerequisites: PSYC 305 and 432.

## PSYC 361. Individual Intelligence Testing (4)

Administration, scoring, interpretation of Wechsler and Binet tests of intelligence. Prerequisites: PȘYC 305, 416 and consent of instructor. PSYC 491 is recommended.

## PSYC 578. Advanced Counsoling (4)

Counseling practices including commonly used methods of psychotherapy practice in techniques of counseling. See EDUC 578. Prerequisite: PSYC 379. PSYC 436 is recommended.

## PSYC 587. Advanced Social Psychology (4)

Theories and research in social psychology. Prerequisites: PSYC 305 and 481.
PSYC 590. Advanced Research Design (4)
Advanced techniques of experimental design. Prerequisite: PSYC 490.

## P5YC 592. Field Work in Psychology (4)

Experience in psychological work performed in schools, agencies, institutions under joint supervision of college and agency. Prerequisite: Consent of instructor.

P5YC 598. • Individual Study (1-5)
For qualified graduate students in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## Social Sciences

## Frederick E. Kottke, Ph.D., Coordinator

The student seeking a Bachelor of Arts, Social Sciences may select an interdepartmental major in social sciences. A major in the social sciences may serve as an academic major for the elementary teaching credential.

## REQUIREMENTS FOR BACHELOR OF ARTS, SOCIAL SCIENCES

Social Sciences Interdepartmental majors are to:

1. Complete the requirements for the Bachelor of Arts Degree.
2. Complete the major of not less than 48 upper division units approved by the major adviser in three of the following disciplines: anthropology, economics, geography, history, political science, psychology, and sociology. The student must satisfactorily complete 16 upper division units in each of three selected disciplines.

## Recommended courses:

A. Anthropology: Prerequisite: ANTH 206.

1. Anthropology 305.
2. Three courses from ANTH 306, 307, 308, 309, 335, 336, 402, or 421
B. Economics: Prerequisite: ECON 300 or equivalent. One course from each of four of the following fields:
3. Economic Theory and Doctrine (ECON 315, 330, 331, 400, 401, 402)
4. Public Finance and Fiscal Policy (ECON 454, 455, 456)
5. International Economics (ECON 405, 440, 441, 442, 443, 444, 445)
6. Money and Banking (ECON 332, 333)
7. Labor Economics (ECON 410, 411)
8. Economic History (ECON 310, 311)
C. Geography: Prerequisite: GEOG 201 or 202 or 240 or 241 . At least four upper division courses, one of which must be selected from group 1 and one from group 2:
9. Topical Geography (GEOG 310, 330, 335, 402, 495)
10. Regional Geography (GEOG 351, 352, 355, 357, 451, 495)
D. History: At least one lower or upper division course in each of three fields:
11. European History
12. United States History
13. Non-Western History

## Social Sciences

E. Political Science: Prerequisite: PSCI 202. Select two courses from each of the following fields:

1. American Government Emphasis: PSCI 322, 351, 353, 354, $455,362,450$, or 492.
2. Comparative Government and International Relations Emphasis: PSCI 312, 331, 414, 461, or 462.
F. Psychology: Prerequisite: PSYC 201, 202
3. PSYC 313.
4. At least 3 courses selected from the following:

PSYC 314, 331, 332, 335, 432, 481.
G. Sociology: Prerequisite: SOCL 101, 102. Select two courses from each of the following categories:

1. Family, Community, and Social Structure: SOCL 301, 315, 321, 331, 372, or 440.
2. Specialized Courses: SOCL 341, 344, 361, 371, 400, 424, 432, or 451.

## DEGREF MINOR IN SOCIAL SCIENCES

A minor in social sciences is not offered. For requirements for minors in the social sciences, see sections of this catalog pertaining to anthropology, economics, geography, history, political science, psychology, and sociology.

## TEACHING CREDENTIALS

Majors in social sciences seeking elementary and secondary credentials:

1. For students seeking the Standard Elementary credential, the Inter-Departmental Major in social sciences is recommended.
2. Students seeking the Standard Secondary Credential who elect the interdepartmental major must have at least 24 upper division units in history, geography, political science, or economics. Anthropology, psychology, and sociology are not commonly taught in the secondary schools.

## Sociology

Alfred W. Bowers, Ph.D., Professor, Chairman<br>Julian B. Roebuck, Ph.D., Professor<br>Harriet C. Stull, Ph.D., Professor<br>Antonio Donini, Ph.D., Associate Professor<br>Harry J. Hale, Jr., Ph.D., Associate Professor<br>Frank E. Cooney, M.A., Assistant Professor<br>J. Emery Fleming, Jr., MA, Assistant Professor

The Department of Anthropology/Sociology offers the Bachelor of Arts, Sociology. The major is designed to provide a comprehensive academic experience in sociology and the related field of anthropology. For the student seeking a liberal education, the major gives an insight into this important aspect of human relationships. The student, with the consent of his adviser, may select courses which provide a background in mental health, community development, sociological teaching and research, family relations, and government.

The student may arrange his program to attain background for professional roles in social welfare services, correctional institutions, mental health services and institutions, and probation and parole work.

The College also offers the degree Bachelor of Arts, Social Sciences. The student seeking this degree may select an interdepartmental major in sociology and any other discipline within the social sciences. (For further 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 40 upper division units, as approved by the major adviser.
4. Completion of a minor is not required.

## DEGREE MAJOR IN SOCIOLOGY

## Prerequisite to the Major

SOCL 101, 102, 203, 12 units
ANTH 206 or 207,4 units
Recommended courses in supporting fields:
One of the following as approved by major adviser, 4-5 units
ECON 320. Quantitative Analysis
MATH 160. Statistics
PSYC 304. Experimental Methods in Psychology I

## Sociology

Tho Major Units
A minimum of 40 upper division units distributed as follows:
Social Organizations and institutions ..... 8
Social Processes ..... 8
Theory and Methodology (SOCL 303, 341, 441, 442) ..... 16
$\dagger$ Electives from Sociology ..... 8
Total ..... 40

## DEGRER MINOR IN SOCIOLOGY

Twenty-four units approved by the minor adviser are required, including at least 20 units in upper division courses.

## TEACHING CREDENTIALS*

Majors in sociology for elementary and secondary credentials must fulfill the following requirements:

1. Degree major in sociology.
2. Secondary credential candidates must complete 9 units in courses in sociology as postgraduate work and receive approval of Sociology as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## COURSE DESCRIPTIONS <br> Lower Division

SOCL 101. Introduction to Sociology (4)
Basic concepts and perspectives in sociological analysis. This course together with SOCL 102 is a prerequisite for 300 and 400 level courses.

SOCL 102. Contemporary Sociology (4)
A survey of theoretical and empirical work in present-day sociology. Prerequisite: SOCL 101.

SOCL 203. Sociological Analysis (4)
Analysis of sociological variables in terms of conceptualization, measurement, graphic and tabular presentation; hypothesis formation and testing. Prerequisite: SOCL 101 and 102 or equivalent.

## sOCL 224. Social Problems in the United States (4)

A study of selected social problems in our society including causes, interrelationships and programs of amelioration. Prerequisite: SOCL 101 or 102 or consent of instructor.

## Upper Division <br> SOCIAL ORGANEZATION AND INSTITUTIONS

SoCL 301. Race and Ethnic Relations (4)
The sociology of minority group relations; with attention to specific racial, ethnic, and religious minorities. Prerequisite: SOCL 101 and 102 or consent of instructor.

[^29]SOCL 315. The Family
(4)

Social structure and changing functions of the modern family. Social interaction. recent sesearch and theoretical developments. Prerequisites: SOCL 101 and 102 or requisite: SOCL 101 and 102 or consent of instructor.

SOCL 321. Urban Sociology (4)
The urban concept; origin and development of urban areas; effects of urbanization on social institutions and social relations; research methods applied to urban life and form. Prerequisite: SOCL 101 and 102 or consent of instructor.

## SOCL 331. Social Stratification (4)

Origins, characteristics, and functions of social classes and castes; emphasis on recent research and theoretical developments. Prerequiistes: SOCL 101 and 102 or consent of instructor.

## socl 344. Black Studies (4)

Examination of the economic, political, religious and psychological sources of stability and of change in the black communities of the United States. Prerequisite: Junior standing, SOCL 101 and 102 or consent of instructor.
SOCL 361. Small Groups (4)
Structure and dynamics of small human groups; theory, research methods and empirical findings. Prerequisite: SOCL 101 and 102 or consent of instructor.

## SOCL 372. Social Welfare Services (4)

Study of the private and public policies relative to public welfare as they have developed with particular reference to American society. Prerequisite: SOCL 101 and 102.
SOCL 400. Mexican-American Studies (4)
Sociological analysis of the Mexican-American minority in American society. Prerequisite: Junior standing, SOCL 101 and 102 or consent of instructor.

## SOCL 432. Sociology of Religion (4)

Sociological analysis of religious belief, behavior, and organization; classical and current theory and research. Prerequisite: SOCL 101 and 102 or consent of instructor.

## socl 440. Social Organization (4)

Analysis of various types of organizations in American Society; internal and external processes and organizational structure. Prerequisite: SOCL 101 and 102 or permission of instructor.

## SOCL 445. Theories of Cọmmunity (4)

Historital examination and critical analysis of the most important classic and modern sociological theories of community. Prerequisite: SOCL 101 and 102 or consent of instructor.

## SOCL 460. Industrial Sociology (4)

Sociological analysis of industrial and other institutions of employment and work; work relations, labor unions, mariagement policies, and industrialization as a worldwide phenomena. Prerequisite: SOCL 101 and 102 or consent of instructor.

## social processes

## 5OCL 320. Social Change (4)

Sociology and șocial change, types and problems of change, factors in rate and direction, resistance to and acceptance of change, classic and modern theories on social change, structural-functional analysis of change. Prerequisite: SOCL 101 and 102 or consent of instructor.

## Sociology

## 5OCL 342. Population Theory and Resemrch (4)

World population theory and empirical studies from Malthus to the present, natality and mortality trends, basic sources of data and their research uses. Prerequisites: SOCL 101 and 102 or consent of instractor.

## SOCL 351. Human Ecology (4)

Examination of differential distribution and density of human populations with attention to social implications. World and U.S. ecological trends and urbanization; emphasis on contemporary U.S. Prerequisite: SOCL 101 and 102 or consent of instructor.

## SOCL 423. Criminology (4)

Theories, causes, characteristics, and social function of crime and delinquency in our society. The administration of criminal justice and the methods of prevention and reduction of crime will be analyzed. Prerequisite: SOCL 101 ánd 102 or consent of instructor.
SOCL 424. Socal Deviance and Contro! (4)
Examination of the normative structure and control mechanisms of the social system. Theories of deviant behavior, and relevant modern research. Prerequisite: SOCL 101 and 102 or consent of instructor.

## socl 451. Personality, Culture, and Social structure (4)

Relations between personality and social structure in a cultural context. Socialization and the allocation of status. Research methods and empirical findings. Prerequisite: SQCL 101 and 102 or consent of instructor.

## THEORY AND METHODOLOGY

## SOCL 303. Research Design in Sociology (4)

Development of designs for survey research; applications to the operating context of a survey. Prerequisite: SOCL 203.

## SOCL 341. History of Social Thought (4)

Development of social theories from ancient times to the 20th Century. Stress on some of the precursors of sociology. Prerequisite: SOCL 101, 102, 203.

## SOCL 403. Research Techniques (4)

Techniques of sociological research; questionnaire construction, interviewing rechniques, scale construction and data analysis. Prerequisite: SOCL 303.

## socl 441. Modern Sociological Theory I (4)

Critical analysis of the classical sociological theories of Comte, Pareto, Weber, Durkhëim, Mannheim, and other classic sociologists. Prerequisite: SOCL 341.

## SOCL 442. Modern Sociological Theory il (4)

Major contributions to our systematic sociological theory. Reading and critical analysis of selected works from Sorokin, Parsons, Merton, and other leading contemporary sociologists. Prerequisite: SOCL 341.
soci 495. Solected Topies in Sociology (1-5)
Topic to be specified in the Class Schedule. Topics vary each term, thus may be repeated for credit. Prerequisite: Consent of instructor.
SOCL 496. Senior Seminar (4)
Seminar for seniors majoring or minoring in sociology. Review and discussion of selected topics in sociology. Each student will be expected to report on an individual project. Prerequisite: Consent of instructor.
SOCL 498. Individual Study (1-5)
For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

# Speech Communication 

Randall C. Ruechelle, Ph.D., Professor, Chairman<br>Max C. Norton, Ph.D., Professor<br>James H. Platt, Ph.D., Professor<br>James R. McDearmon, Ph.D., Associatẹ Professor<br>Lewis J. Polidoro, Ed.D., Associate Professor<br>William J. Worthley, Ph.D., Assistant Professor<br>Richard S. Lucas, M.A., Assistant Professor<br>Sam Wellbaum, Ph.D., Assistant Professor

The Department of Speech Communication offers the Bachelor of Arts and Master of Arts, Speéch. 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 and of the skills in the art of oral expression.
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 elementary and secondary education, clinical speech pathology and audiology, mass communications, social welfare, law, and business.

## 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 40 upper division units.
4. Completion of a minor is not required.
DEGREE MAJOR IN SPRECH
Prerequisites to the Mejor
SPCH 200. Speech Communicition, 4 units One of the following as approved by the major adviser: SPCH 210. Group Discussion, 4 units SPCH 240. Oral Interpretation, 4 units
The Major Units
SPCH 300. Phonetics ..... 4
SPCH 305. General Semantics ..... 4
SPCH 312. Speech Composition ..... 4
SPCH 361. Introduction to Communication Disorders ..... 4
SPCH 400. Communication Theory ..... 4
Upper division courses in speech as approved by major adviser ..... 20
Total ..... 40

## dEgre minor in speech

(26 units, to include at least 18 units in upper division)

## Lower Division

SPCH 200. Speech Communication, 4 units
One of the following as approved by minor adviser, 4 units:
SPCH 210. Group Discussion
SPCH 240. Oral Interpretation

## Upper Division

SPCH 300. Phonetics or SPCH 467. Structural Linguistics and Phonology, 4 units
SPCH 305. General Semantics, 4 units
SPCH 312. Speech Composition, 4 units
Six units as approved by minor adviser to constitute a concentration in general speech or communication scienice.

## TEACHING CREDENTIALS

## STANDARD TEACHING CREDENTIAL

Standard Teaching Credential Specialization in Elementary or Secondary Education with academic major in speech (administered by the Department of Education) :

1. Degree major in speech.
2. Secondary credential candidate must complete 9 units in courses in speech as postbaccalaureate work and receive approval of speech as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## RESTRICTED CREDENTIAL: SPEECH AND HEARING HANDICAPPED

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 Restricted Credential, Specialization in Speech and Hearing Handicapped, California State Department of Education. The program as administered by the Department of Speech Communication is coordinated with the Master of Arts program in Speech.

1. General Requirements
a. A baccalaureate degree.

A speech major is recommended, but not required. Students majoring in speech for the baccalaureate shall complete requirements for area specialization in communication science.
b. Completion of provisions and principles of the United States Constitution as stated in Education Code Section 13132.
c. A fifth year or equivalent, of postgraduate education in Communication Science and Pathology and related areas to include either:
(1) 45 quarter ( 30 semester) units of upper division and/or graduate course work

OR
(2) A master's degree in speech and satisfactory completion of an Oral Communication Skills Examination.
d. Admission to credentials program on recommendation of the Credentials Admission Committee.

## 2. Specialized Preparation

a. 90 quarter units shall include undergraduate and graduate preparation in the development and disorders of speech, hearing and language, and cognate fields and the clinical management of disorders of communication. Courses to be selected from SPCH 300, 360, 361, 364, 365, 400, 461, 463, 464, 466, 467, 470, 500, 560, 561, 562, 563, 564, 565, 570, 571, 598, 641, and 642; PSYC 304, 313, 332, 335, 379 and 432; EDUC 412 and 576.

## MASTER OF ARTS $\mathbb{N}$ SPEECH

The department offers the Master of Arts Degree in Speech with concentration in Communication Pathology.

## Prerequisites for admission to the graduate program:

To be admitted to the program the following prerequisites must be met:

1. Completion of a bachelor's degree program from an accredited college or university.
2. Satisfactory completion of college entrance requirements to graduate studies.
3. Superior performance in the undergraduate major (3.0 G.P.A.). Exceptions to be granted only upon petition to the department.
4. A minimum of 40 undergraduate quarter units in speech including core course requirements for completion of the B.A. degree with concentration in communication science and cognate fields, to include the following:
Speech 300. Phonetics
Speech 360. Language Behavior and Development
Speech 361. Introduction to Communication Disorders
Speech 364. Speech and Hearing Science
Speech 400. Communication Theory
Speech 460. Diagnostic Methods in Communication Disorders
Speech 461. Communication Disorders I (Language)
Speech 462. Communication Disorders II (Speech)
Speech 463. Audiology
Psychology 335. Intro to Study of Abnormal Behavior
5. Satisfactory completion of a qualifying examination in communication pathology administered by the department after the completion of one quarter in course work beyond the baccalaureate degree.

## Continuation in the Program

The student is formally admitted to the program after completion of one quarter 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 G.P.A. must be maintained. Academic deficiency will result in withdrawal of candidacy. Departmental review of candidate's eligibility is mandatory.
2. Students are expected to maintain continuous registration. Exceptions will be granted only on petition to the department.

## REQUIREMENTS FOR THE DEGREE

The degree Master of Arts in Speech with concentration in Communication Pathology is awarded after completion of the following requirements:

1. 45 quarter units in graduate courses selected on advisement and to include research methodology (SPCH 597) and thesis preparation (SPCH 599). Graduate level courses in speech within the 500 series are applicable to the degree.

## Speech

Additional graduate level courses in supportive fields (not to exceed 15 units) are applicable upon advisement.
2. A grade point average of 3.0 or better earned in graduate level course work.
3. Satisfactory completion of an acceptable thesis.
4. Satisfactory completion of a comprehensive written and oral examination covering SPCH 597, 599 and related course work.
5. Reading knowledge of an appropriate foreign language is recommended.

## SPEECH <br> Lower Division

## SPCH 200. Speech Communication (4)

Fundamentals of oral communication with emphasis on the nature of logical discourse. Theory and practice of oral communication applied through preparation, presentation, and criticism of speeches. Required for General Education.

## SPCH 210. Group Discussion (4)

Organization and conduct of group discussion. Participation in small group discussions. Emphasis on gathering and presenting information, problem solving and decision making in the group setting.

## 5PCH 211. Argumentation and Debate (4)

Theory of argumentation as applicable to formal debate. Classroom practice in competition debate. (Formerly 311)

SPCH 240. Oral Interprefation (4)
Fundamentals of theory; techniques and practices in communicating from the printed page.

SPCH 292. Forensics Workshop I (1-2)
Preparation for and participation in intercollegiate forensics competition. Opportunity for participation in various on-campus and community speech activities. SPCH 292 and 392 may be repeated for a total of twelve units. (Formerly 310)

## Upper Division

SPCH 300. Phonetics (4)
Analysis of general American speech with emphasis on synthesis in connected discourse. Practice and drill with international phonetic alphabet. Application of sciences of phonetics to fields of general linguistics, dialects, pronunciation in foreign languages, speech correction, and language arts.

## SPCH 305. General Semantics

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. Speech Composition (4)

Advanced study of fundamentals of oral communication as applied to public address. Emphasis on research and analysis of significant current problems, invention and arrangement of persuasive appeals, and effective oral presentation. Prerequisite: SPCH 200 is recommended.

## SPCH 340. Oral Inferpretation of Children's Literature (4)

Application of principles of oral communication to interpretation of children's literature. Types of children's literature, with emphasis on criteria for selection of literature for oral interpretation. Prerequisite: Consent of instructor; SPCH 240 is recommended.

## SPCH 341. Oral Interpretation of Literature (4)

Application of principles of oral communication as they pertain to interpretation of poetry, prose, descriprive and dramatic literature. Prerequisite: Consent of instructopr; SPCH 240 is recommended.

## SPCH 342. Special Forms of Oral Interpretation (4)

Study of special and experimental forms of oral interpretation, individual and group. Performance experience with various forms. Prerequisite: SPCH 240 or consent of instructor.

## SPCH 360. Language and Speech Development (4)

Patterning and development of normal speech and language in children considered from neurological, psychological and semantic standpoints; functional analysis of verbal behavior. Relationship of speech and language learning to perception, cognition, bilingualism and language change. An introduction to the correction of speech and language disorders as they relate to the development of language skills of the child.

## SPCH 361. Introduction to Communicafion Disordors (4)

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 settings. Guided observations. Prerequisite: Concurrent enrollment in SPCH 300 or consent of instructor.

## SPCH 364. Speech and Hearing Science (4)

Anatomical and physiological characteristics of normal speech and hearing mechanisms, and their relationship to the fundamental acoustics of speech. Physiology and neurology of the speaking act. Prerequisite: SPCH 300 or consent of instructor.
SPCiH 365. Introduction to Psychoacoustics (3)
Background and research relating to acoustics and the psychology of hearing. Survey of methods and techniques of measurements employed in hearing science.

## SPCH 392. Forensics Workshop II (1-2)

Preparation for and participation in intercollegiate forensics competition. Opportunity for participation in various on-campus and community speech activities. SPCH 292 and 392 may be repeated for a total of 12 units. Prerequisite: SPCH 292 or consent of instructor. (Formerly 311)

## 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: SPCH 305 or 360 or consent of instructor.

## SPCH 410. Group Communication

Principles and practice of group discussion, conference development and leadership in democracy. Small group theory as it relates to group problem solving in education, industry, and community affairs. Prerequisite: SPCH 210 or consent of instructor.

## Speech

## SPCH 412. Theory of Parsuasion (4)

Theory of argument: evidence, reasoning, and processes of motivation. Systematic evaluation of issues, organization and preparation of materials intended to influence group opinion and action. Prerequisite: Consent of instructor; SPCH 200 is recommended.

## SPCH 414. Rhetorical Theory (4)

Rhetorical theory from classical to modern times. Influence of Aristotelian principles on development of rhetorical thought. Significant movements in development of rhetorical theory in France, Great Britain, and United States. (Formerly 413) Prerequisite: Senior standing or consent of instructor.

## SPCH 460. Diagnostic Methods in Communieation Disorders (4)

Principles and procedures in diagnosis of communication disorders. Case history taking, administration of diagnostic tests, interviews, reporting, and parent-teacher counseling. Concurrent enrollment in SPCH 470. for one unit is required. Prerequisites: SPCH 360, 361, or equivalent.
SFCH 461. Communication Disorders I (Language) (3)
Symposia on disorders related to the symbolizing processes. Relationship to the communication problems of the multiply handicapped child. Practicum in clinical diagnostics. Students are required to register concurrently in SPCH 470 for one unit. Prerequisite: SPCH 361 or consent of instructor.

## SPCH 462. Communication Disorders H (Speech) (3)

Continuation of SPCH 461. Symposia on disorders related to functional and organic causes; relationship to the speech and language problems of the multiply handicapped child. Presented by members of the staff. Practicum required. Students are required to register concurrently in SPCH 470 for one unit. Prerequisite: SPCH 361 or consent of instructor.

## SPCH 463. Audiology (4)

Anatomy and pathologies of hearing mechanism. Acoustics and puretone testing rechniques; theory and practice in group puretone screening tests; development and administration of hearing conservation programs; interpretation of hearing test results; basis for referral and follow-up procedures, and practicum in audiometrics. Students are required to register concurrently in SPCH 471 for one unit. Prerequisite: SPCH 361 or consent of instructor.

## SPCH 464. Language Development of the Hard of Hearing (4)

Theories of hearing. Interrelationship between hearing and pathology of the hearing mechanism; linguistic variables in the development of language of the deaf and hard of hearing. Acoustical, psychological and linguistic procedures in rehabilitation. Guided observations required. Concurrent enrollment in SPCH 471 for one unit is required. Prerequisite: SPCH 300 or consent of instructor.
SPCH 466. Speech Reading and Auditory Training (4)
Basic principles of speech and language development by observation of visible aspects of oral communication. Techniques of speech reading, auditory training, and speech improvement with impaired hearing. Concurrent enrollment in SPCH 471 for one unit is required. Prerequisite: SPCH 464 recommended.

## SPCH 467. Structural linguistics (4)

Study of the structure of language systems from the standpoint of the phonemic, morphemic and syntactical levels of organization; practice in the construction of grammatical models based upon structural and transformational approaches to linguistic analysis; comparison of the structures of principal English, Germanic and Romanic language dialects. Prerequisite: SPCH 300, SPAN 468, FREN 468, or consent of instructor .

5PCH 470. Clinical Practice: Speach and Language Disorders (1-3)
Supervised work with representative cases in articulation, stuttering, aphasia voice disorders, delayed speech and language, cleft palate, voice and cerebral palsy speech disorders. Internship is in both on-campus and off-campus settings. May be repeated for a total of 9 quarter units. Prerequisite: Admission to clinical program.
SPCH 471. Clinical Practice: Hearing Disorders (1-3)
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 is in both on-campus and off-campus settings. May be repeated for a total of 9 quarter units. Prerequisite: Admission to clinical program.
SP'CH 495. Selected Topics in Speech (Topics to bo specified in the Class Schedule.) (1-5)
Development of a selected branch of oral communication. Topics may vary each term, thus may be repeated for credit. Prerequisites: Upper division standing and consent of instructor .

## SFCH 496. Senior Colloquium in Speech and Communication Science (4)

Synthesis of philosophies of oral communication represented by analyses of research. Prerequisite: Consent of instructor.

## SPCH 498. Individual Study (1-5)

For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## SPCH 500. Psycholinguistics (5)

Study of the process of communication as the sciences of encoding and decoding messages in the production and reception of oral language. Prerequisite: SPCH 400 or consent of instructor.

## SPCH 560. Seminar: Aphasia and Symbolic Disorders (4)

Etiology, diagnosis, and therapy of aphasia. Problems related to the treatment of aphasia and related symbolic disorders. Concurrent enrollment in SPCH 570 for one unit is required. Prerequisite: Consent of instructor.

## SPCH 561. Seminar: Stuttering (4)

Theories and research in stuttering and neurological disorders. Guided observations, class discussions and evaluations. Concurrent enrollment in SPCH 570 for one unit is required. Prerequisite: Consent of instructor.

## SPCH 562. Seminar: Cleft Palate Speech (4)

Etiology, surgical and therapeutic procedures, parental counseling. Guided observation, discussion and evaluation. Concurrent enrollment in SPCH 570 for one unit is required. Prerequisite: Consent of instructor.

## SPCH 563. Seminar: Developmental Communication Disorders (4)

Diagnosis and treatment of developmental communication disorders including delayed speech and language; articulation; and related problems of learning secondary language skills of reading, spelling and writing. Concurrent enrollment in SPCH 570 for one unit is required. Prerequisite: Consent of instructor.

## SPCH 564. Seminar: Clinical Audiology (5)

Advanced procedures for the measurement of hearing loss; diagnosis of hearing disorders; theory and practice of hearing aid design and fitting in aural rehabilitation. Concurrent enrollment in SPCH 571 for one unit is required. Prerequisite: Consent of instructor.

## Speech

## SPCH 565. Seminar: Voice Disorders (4)

Etiology and treatment of specific disorders of pitch, quality and intensity; techniques for analysis of deviancy. Therapeutic observation of laryngectomized and dysphonia cases conducted in clinical and hospital environment. Concurrent enrollment in SPCH 570 for one unit is required. Prerequisite: Consent of instructor.

SPCH 570. Advanced Clinical Practice: Speech and Language Disorders (1-3)
Supervised work with representative advanced cases in stuttering, aphasia and voice disorders. 15 contact hours are required for each quarter unit of credit earned. May be repeated for a total of 9 units. (Formerly 660) Prerequisite: Admission to clinical program.

SPCH 571. Advanced Clinical Practice: Hearing Disorders (1-3)
Supervised work with representative cases of hearing disorders. Includes auditory training, lipreading, language development for the hard of hearing. 15 contact hours required for each quarter unit earned. May be repeated for 2 total of 9 units. (Formerly 661) Prerequisite: Admission to clinical program.

## SPCH 595. Selected Topics in Speech (Topics to be specified in Class Sehedulo.) (1-5)

Development of a selected branch of oral communication. Topics may vary each term, thus may be repeated for credit. Prerequisite: Graduate standing.

## SPCH 597. Research Mothods in Speech (5)

The purpose and methods of research in the field of speech; trends and developments with emphasis upon the development of methods of studying existing problems and discovering new ones in the field of speech. Prerequisite: Consent of instructor and PSYC 304 or demonstrated competency in fundamental psychological statistics.

SPCH 598. Iadividual Study (1-5)
For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

## SPCH 599. Thesis (4-8)

Thesis research. Prerequisite: Special permission.

## SPCH 647. Clinical Practice in Communication Disorders in Public Schools 1 (3)

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. Prerequisite: SPCH 300, 360, 361, 461, 462, 463, and 45 clinical clock hours in Speech 470, or 570 and 571.

5PCH 642. Clinical Practice in Communication Disorders in Public Schools It (Continuetion of SPCH 641) (6)
Supervised therapy of communication disorders in the public school setting. Prerequisite: SPCH 641. 15 contact hours required for each quarter unit earned. A maximum of 90 contact hours may be earned for 6 quarter units of credit.

## International Study Courses

Students enrolled at Stanislaus State College under the California State College's International Study Programs register concurrently at Stanislaus State College and at the host institution abroad. Credit for work taken abroad is in terms of Stanislaus State College courses. If the student studying abroad finds no counterpart courses at Stanislaus State College, he should register for one of the courses listed below.
INST 293. Projects in Study Abroad: (Suhject) No maximum number of units Open only to students in California State College's International Study Program.

INST 493. Projects in Study Abroad: (Subject) No maximum number of units Open only to students in California State College's International Study Program.

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

## Instructional Faculty

Gatin, Carl (1969) President Professor of Applied Sciences B.S., 1950, University of Southern California; M.S., 1955, University of Tulsa; Ph.D., 1959, Pennsylvania State University
Aamodt, Melvin H. (1970) Associate Professor of Anthropology and Geography B.A., 1958, Brigham Young University; M.A., 1960, University of Wisconsin; Ph.D., 1968, Indiana University
Ahanotu; Austin Metumara (1970)____ Assistant Professor of History B.A., 1967, Berea College; M.A., 1968; Ph.D., 1971, University of California, Los Angeles
*Ahlem, Lloyd H. (1962) Professor of Psychology A.B., 1952; M.A., 1955, San Jose State College; Ed.D., 1962, University of Southern California; Certified Psychologist, 1959, State of California
Barrett, Thomas P. (1961) .-_-_- Associate Professor of Business Administration B.A., 1954, Northeastern University; M.A., 1958, Michigan State University

Berg; Michael J. (1970)___ Assistant Professor of Mathematics A.B., 1965, Brandeis University; A.M., 1968; Ph.D., 1970, Dartmouth College.

Berkoben, Lawrence D. (1963) Associate Professor of English B.A., 1957, Pennsylvania State University; M.A., 1958, Ohio University; Ph.D., 1963, University of Washington
Booker, James L. (1970) $\qquad$ Assistant Professor of Chemistry B.S., 1963; M.S., 1965, Texas Technological College; Ph.D., 1970, University of Washington
Bowen, James C. (1970)__ Assistant Professor of Physical Education B.A., 1965, University of Northern lowa; M.A., 1969, State University of Iowa

Bowers, Alfred W. (1967) $\qquad$ Professor of Anthropology B.S., 1928, Beloit College; M.A., 1929, Ph.D., 1948, University of Chicago

Brewer, Joseph E. $\qquad$ Associate Professor of English B.A., 1947, University of Akron; M.A., 1948, University of Cincinnati; Ph.D., 1954, Case Western Reserve University
Brown, Judith A. (1969) Assistant Professor of Biological Sciences B.A.,. 1966, Whittier College; M.S., 1969, Northwestern University

Bruggman, Joseph E. (1960) $\qquad$ Professor of Music B.A., 1941, San Jose State College; M.A., 1947; Ed.D., 1949, Columbia University

Buchanan, William A. (1970) Assistant Professor of Psychology B.A., 1965; M.A., 1967, California State College at Los Angeles; Ph.D., 1969, University of Colorado
Camajani, Giovanni (1964)_P_P_ Professor of Music B.S., 1937; M.A., 1942; Ph.D., 1945, New York University; Fellow, 1945, Trinity College, London
Camarata, Martin L. (1964)
Associate Professor of Art B.S., 1956, New York State University at Buffalo; M.A., 1957, New York University
Canby, Joel (1970)
Professor of Anthropology B.A., 1941, Colorado College; A.M., 1948; Ph.D., 1949, Harvard University

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## Faculty

Carter, Dora L. (1969) ___ Assistant Professor of Physical Education and Health B.S., 1960, University of Oklahoma; M.S., 1964, University of Colorado

Caswell, John E. (1960) $\qquad$ Professor of History B.A., 1934; M.A., 1937, University of Oregon; Ph.D., 1952, Stanford University

Chang, Shang-Wang (1969) ____-_ Assistant Professor of Mathematics B.E. (Engineering), 1947, Tohuku University, Japan; M.S., 1961, Kansas State Teachers College; Ph.D., 1969, Iowa State University
Chapin, Wayne R. (1970) $\qquad$ Professor of Business Administration B.B.A., 1958; M.B.A., 1959, University of Texas at Austin; D.B.A., 1965, University of Southern California; C.P.A., 1958, State of Texas
 B.S., 1958, National Taiwan University; M.S., 1963, Case Western Reserve University; Ph.D., 1970, University of Rochester
Christofferson, Jay P. (1970) ___ Assistant Pıofessor of Biological Sciences B.S., 1961, University of Utah; M.S., 1965; Ph.D., 1970, University of Hawaii

Cole, James C. (1964) $\qquad$ A.B., 1947; M.A., 1948, Stanford University; Ed.D., 1956, Teachers College Columbia University
Colescott, Robert H. (1970)
Professor of Art A.B., 1949; M.A., 1952, University of California, Berkeley

Conant, Richard D. (1969) _-_-_-_-_Associate Professor of Physical Education A.B., 1955, Occidental College; M.S., 1956, University of California, Los Angeles; Ph.D., 1969, University of Oregon.
Cooney, Frank E. (1970) $\qquad$ Assistant Professor of Sociology B.A., 1966, University of San Francisco; M.A., 1967, University of Kentucky

Corbin, Joseph W. (1968) _-_-_-_ Assistant Vice President for Academic Affairs Associate Professor of Education B.S., 1960, Geneva College; M.Ed., 1961, University of Pittsburgh; Ed.D., 1967, University of the Pacific
Corum, Richard G. (1969)
Assistant Professor of English B.A., 1965; M.A., 1966, University of California, Berkeley

Coulter, R. Scott (1970) $\qquad$ Associate Professor of Music B.M., 1949; M.M., 1952, University of Pacific
*Credell, Edward R. (1967) .-_-_ Associate Professor of Education A.B., 1949, Fresno State College; M.S., 1956; M.Ed., 1960, University of Southern California; Ph.D., 1967, Northwestern University
Crist, William D. (1969) $\qquad$ Assistant Professor of Economics B.S., 1960; M.A., 1962, University of Nebraska

Crowley, Gerard J. (1960)
Executive Dean;
Professor of Management A.B., 1942, Loyola College; Ed.M., 1951, Boston University

Day, William W. (1970)<br>$\qquad$ Dean, School of Professional Studies Professor of Education B.A., 1956; M.S., 1960, University of Wyoming; Ed.D., 1964, University of Nebraska<br>Dean, Britten (1967)<br>$\qquad$<br>Associate Professor of History A.B., 1957, Brown University; M.A., 1962; Ph.D., 1969, Columbia University

[^31]Dinse, Noble T. (1970) Associate Professor in Drama B.S., 1968; M.A.T., 1970, Portland State University

Donini, Antonio (1966) $\qquad$ Associate Professor of Sociology A.B., 1941, Institute of Classical Literature and Humanities; M.A., 1945, San Miguel; M.S.Sc., 1957; Ph.D., 1960, Gregorian University, Rome, Italy
 B.A., 1964, University of California, Berkeley; M.A., 1966; Ph.D., 1970, University of California, Los Angeles
Dyche, Chester W. (1970) ._-_ Associate Professor of Mathematics B.A., 1952, Linfield College; M.A., 1957, Oregon State University

Eichensehr, Frank C. (1969) Assistant Professor of Psychology B.S., 1964, Ohio State University; M.A., 1968, University of Minnesota

Erickson, Edward C. (1970)
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## INDEX

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## NOTES

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Lt. Gov. Ed Reinecke talks with a number of SSC students during his visit to the eampus last spring.

## LIBRARY

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## STUDENT SERVICES

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Test Officer B.A., 1957, Sir George Williams University; M.A., 1958; Ph.D., 1962, Columb ia University

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Peyton, Cary R. (1970). . . . . . . . . . . . . . . . Assistant to the Dean B.S., 1954. United States Military Academy, West Point

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Edmondson, Jr., James H. (1971)
Counselor B.S., 1970, California State Polytechnic College San Luis Obispo; M.A.,

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[^0]:    * Classes are not scheduled to meet during the Reading Period. This is a time provided for students to pursue additional reading assignments and for faculty to be available for consultation with students. In certain art and science classes instructors may assign additional studio and laboratory work rather than additional readings. Examinations should not be scheduled during the Reading Period.

[^1]:    *The late filing periods will end carlier if admission quotas are filled.

[^2]:    * The student may also be subject to expulsion, suspension and/or probation for other causes. See pages 48-49 in Student Services section of this catalog.

[^3]:    * Students may satisfy subject requirements in United States History and Constitution, California State and Local Government, and in oral expression by passing examinations in these fields. $\dagger$ HIST 474, Constitutional History of the United States, 4 units, will fulfill the U.S. Constitution portion of this requirement.

[^4]:    * Course must be raken 3 consecutive quarters to be applicable.
    $\dagger$ Students may satisfy subject requirements in United States History and Constitution, California State and Local Govemment, and in oral expression by passing examinations in these fields.

[^5]:    $\ddagger$ Exceptions to the Health and Physical Education requirement are as follown:

    1. A student may be excused from such course who states in writing that the course in health is contrary to his religious beliefs; under this condition the student is permitted to substitute a course in the feld or felds specifically desigunted by the Vice President for Achdemic Affairs in lieu of the required health course.
    2. A student may be exempted by the Vice President for Academic Affairs from the physical education requirements if the student is over 25 years of age. Appropriate units in other gelds may be substituted in order to meet the requirements of
[^6]:    * Master of Arts programs are offered in Education, English, History and Speech. Specific requirements will be found in the catalog sections for the departments concerned.

[^7]:    * See Education. Before electing to pursue this minor the student seeking a secondary credential should consult a credential adviser as to possibilities of student teaching and professional placement.

[^8]:    * Students planning to seek advanced degrees are advised to complete both a year sequence of college physics and a year sequence of organic chemistry. If interested in molecular biology, microbiology, or biochemistry, the student should also elect a year sequence in calculus.

[^9]:    $\dagger$ A maximum of 14 units may be satisfied by courses at lower division level as approved by major adviser.
    $\ddagger$ Secondary credential candidate with a degree major in biological sciences is advised to complete 2 degree minor in the physical sciences.

[^10]:    * 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 Stanislaus State College.

[^11]:    * Courses in applied psychology are not the equivalent of PSYC 201 and do not fulfill this requirement.

[^12]:    * Students planning to attend graduate school or work in industry should complete MATH 222 and 223 and one year of German.

[^13]:    $\dagger$ See Education.

[^14]:    * The California State Board of Education is empowered to change credential requirements without prior notice. The College will make changes in programs leading to credentials whenever revisions are reported to it in the California Administrative Code, Title 5, Education or by other official notifications.

[^15]:    * A qualified graduate student entering in the fall quarter may petition for student teaching to be completed in two quarters.

[^16]:    * These requirements are deemed minimal; an adviser may require additional academic or professional work of a candidate as individual needs may require.

[^17]:    *Sometimes referred to as a "Four Plus One" program because the credential involves a four year baccalaureate degree for initial certification; an additional 45 quarter units (one year) is to be completed within the ensuing seven years.
    $\dagger$ These requirements are deemed minimal; an adviser may require additional academic or professional work of a candidate as individual needs may require.
    $\ddagger$ This course must be taken prior to Student Teaching III (EDUC 443).

[^18]:    § The Standard Teaching Credential with a Specialization in Secondary Teaching is also issued on the basis of a partial fullfillment of requirements. Information may be obtained from the College Credentials Office.
    $\dagger$ These requirements are deemed minimal; an adviser may require additional academic or professional work of a candidate as individual needs require.

    * As these majors and minors are not commonly taught in the secondary schools, students should consult with the Education Department for employment potential.

[^19]:    * As these majors and minors are not commonly taught in the secondary schools, students should consult with the Education Department for employment potential.
    $\dagger$ Electives must include at least 9 quarter units of approved upper division or graduate course work in the teaching major or the teaching minor and total, along with professional course work, no less than 45 quarter units to meet credential requirements.

[^20]:    * Specific seminar titles will be announced in the Quarterly Class Schedules.

[^21]:    * A student who can demonstrate equivalent preparation may be exempt from 4 to 24 units of the lower division requiremants. Two years of college level Spanish or the equivalent is required for admission to upper division courses.

[^22]:    * A student who can demonstrate equivalent preparation may be exempt from 4 to 24 units of the lower division requirements. Two years of college level Spanish or the equivalent is required for admission to upper division courses.
    $\dagger$ See Education.
    $\ddagger$ A student who can demonstrate equivalent preparation may be exempt from 4 to 24 units of the lower division requirement. Two years of college level French or the equivalent is required for admission to upper division courses.

[^23]:    $\dagger$ See Education.

[^24]:    * Students must earn a grade of $\mathbf{C}$ or better in all mathematics courses listed as prerequisites. Courses in which grades of less than $C$ are earned will not be accepted toward the major or minor in mathematics.

[^25]:    $\dagger$ One and a half units of physical education activities are required in General Education for graduation. In addition, physical education majors are required to achieve satisfactory skill in at least six activities. This requirement may be met by passing proficiency tests. Activity classes should be taken as needed.
    $\ddagger$ These courses may apply to the General Education requirements.

[^26]:    * One and a half units of physical education activities are required in General Education for graduation. In addition, physical education minors are required to achieve satisfactory skill in at least three activities. This requirement may be met by passing proficiency tests. Activity classes should be taken as needed.

    Minors in physical education seeking to teach in secondary school are required to participate in at least one querter of intercollegiate athletics.

[^27]:    * Under certain circumstances MATH 110 or MATH 210 will be accepted in lieu of MATH 160 with prior approval of the major adviser.

[^28]:    $\dagger$ Before electing to pursue this major or minor the student seeking a secondary credential should consult with a credential adviser as to possibilities of student teaching and professional placement.

[^29]:    * Before electing to pursue this major or minor the student seeking a secondary credential should
    consult a credential adviser as to possibilities of student teaching and professional placement.
    $\dagger$ The elective units should be selected in consultation with and approved by the major adviser.
    PSYC 331, 432, and ANTH 305, 401, 411 and 421 may be applied to the major program if they are not included in a minor in psychology or anthropology.

[^30]:    * Leave of absence 9-1-70 to 9-1-72.

[^31]:    * Leave of absence 10-5-70 for limited term service in Office of the Chancellor.

