# STANISLAUS <br> STATE <br> COLLEGE 

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# STANISLAUS STATE COLLEGE 

the california state colleges

## CATALOG

1969-70


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## SUMMER SESSION 1969

May 15, Thursday _—_-_Due date for filing applications for summer session
May 15, Thursday ..._ Due date for filing applications for financial aid in summer session 1969
June 20, Friday ___ End of Regular Registration Period (refer to Summer Session Bulletin)
June 23-August 1 $\qquad$ Six-week session
August 4-August 15 $\qquad$ Two-week session

## FALL QUARTER 1969

January 1, Wednesday ...___ Period for accepting admission applications for fall quarter 1969 begins
March 1, Saturday
Due date for filing applications for admission or readmission, transcripts and supportung aomıssion documents for fall quarter 1969 (although applications will be accepted after the due date, the Coliege cannot guarantee complete admission processing for students who complete the application procedure after this date)
April 1, Tuesday
Due date for filing applications for financial aid in the 1969-70 academic year
September 11-18, Thursday
through Thursday
Student Orientation Program
September 18, Thursday ___ Registration (refer to Class Schedule)
September 18, Thursday ____Last day to register without late registration fee
September 19, Friday ....-_._-_Instruction begins
September 25, Thursday ___........First day to add or drop a course
October 3, Friday ......................ast day of late registration
October 3, Friday $\qquad$ Last day to add a course
October 3, Friday Last day to apply for fall 1969 graduation
October 3, Friday $\qquad$ Last day to file application for partial refund of fees from dropping courses or withdrawing from the College
October 14, Tuesday ___ Last day to drop a course without a grade
October 14, Tuesday …-.........Applications due for spring and summer 1970 graduation
October 23, Thursday ___Scholarship reports due
November 10-December 3
Monday through
Wednesday $\qquad$ Advising period for winter registration
November 11, Tuesday _-.......Legal holiday (Veterans Day)
November 24, Monday $\qquad$ Classes meet on Thursday schedule
November 27-30, Thursday
through Sunday
Thanksgiving holiday
December 1, Monday
Last day to drop a course

December 2, Tuesday ...-.-.-. Last day of classes for fall quarter
December 3, Wednesday ......Registration for winter quarter (refer to Class Schedule)
December 3, Wednesday .-.......Last day to register for winter quarter withour late registration fee
December 3-8, Wednesday
through Monday $\qquad$ Reading period *
December 9-13, Tuesday
through Saturday $\qquad$ Final examinations for fall quarter
December 13, Saturday Fall quarter ends

## WINTER QUARTER 1970

September 15, Monday --.-......-Period for accepting admission applications for

November 15, Saturday -.-.-......Due date for filing applications for admission or readmission, transcripts, and supporting admission documents for winter quarter 1970 (although applications will be accepted after the due date, the College cannot guarantee complete admission processing for students who complete the application procedure after this date)
November 15, Saturday _-_........Due date for filing applications for financial aid in winter quarter 1970
December 3, Wednesday .-.-..... Registration for winter quarter (refer to Class Schedule)
December 3, Wednesday ...-..... Last day to register for winter quarter without late registration fee
January 1, Thursday_-_-_Legal holiday (New Year's Day)


January 16, Friday....-.-_____ Last day of late registration
January 16, Friday--_-_-_ Last day to add a course
January 16, Friday............_-_ Last day to apply for winter 1970 graduation
January 19, Monday .....-.-.............. Last day to file application for partial refund of fees from dropping or withdrawing from the College
January 28, Wednesday..._-..............
January 28, Wednesday...-........... Applications duc for fall 1970 graduation
February 6, Friday .-._-_-_-_-_ Scholarship reports due
February 16-March 6,
Monday through Friday _-_-_- Advising period for spring and summer registration
February 23, Monday.-.-....-.-....... Legal holiday (Washington's Birthday, Sunday, February 22)
March 6, Friday___________________ dast day to drop a course

[^0]
## Academic Calendar

| March 6, Friday | Registration for spring quarter (refer to Class Schedule). No classes to be held |
| :---: | :---: |
| March 6, Friday | Last day to register for spring quarter without late registration fee |
| March 13, Friday | Last day of classes for winter quarter |
| March 16, Mond | Reading Day |
| March 17-21, Tuesday throu | Final examinations for winter quarter |
| March 21, Saturd | Winter quarter ends |
|  | ING QUARTER 1970 |
| December 15, M | Period for accepting admission applications for spring quarter 1970 begins |
| February 15, Sun | Due date for filing applications for admission or readmission, transcripts, and supporting admissions documents for spring quarter 1970 (although applications will be accepted after the due date the College cannot guarantee complete admission processing for students who complete the application procedure after this date) |
| February 15, Sun | Due date for filing applications for financial aid in spring quarter 1970 |
| March 6, Friday | Registration (refer to Class Schedule) |
| March 6, Friday | Last day to register without late registration fee |
| March 30, Mond | Instruction begins |
| April 3, Friday. | First day to add or drop a course |
| April 10, Friday | Last day of late registration |
| April 10, Friday | Last day to add a course |
| April 10, Friday | Last day to apply for spring 1970 and summer 1970 graduation |
| April 13, Mond | Last day to file application for partial refund of fees from dropping courses or withdrawing from the College |
| April 22, Wedne | Last day to drop a course without a grade |
| April 22, Wednes | Applications due for winter 1971 graduation |
| May 1, Friday | Scholarship reports due |
| May 4-June 5, Monday throu | Advising period for fall registration |
| May 29, Friday | Last day to drop a course |
| May 30, Saturday | Legal holiday (Memorial Day) |
| June 4, Thursday | Last day of classes for spring quarter |
| June 5-8, Friday through | Reading Period |
| June 9-12, Tuesday throu | Final examinations for spring quarter |
| June 13, Saturday | Commencement |
| ane 13, Saturday | Spring quarter ends |

## TRUSTEES OF <br> THE CALIFORNIA STATE COLLEGES

## EX OFFICIO TRUSTEES

## SUMMER SESSION 1970 (TENTATIVE)

May 15, Friday_-_-_-_-_ Due date for filing applications for summer session 1970 registrations
May 15, Friday $\qquad$ Due date for filing applications for financial aid in summer aid in summer session 1970
June 19, Friday_-_End of Regular Registration Period (refer to Summer Session Bulletin)

August 3-14. Two-week session

## OFFICE HOURS

| Regular Session__ Monday-Friday, 8 a.m. to 12; 1 to 5 p.m. |  |
| :---: | :---: |
| Summer Session__-_-_Monday-Friday, 8 a.m. to 12; 1 to 5 p.m. |  |
|  | LIBRARY HOURS |
| Regular Session_-.-........-Tonday-Thursday, 8 a.m. to 10 p.m.; |  |
| Six-week sessio | Monday-Thursday, 7:30 a.m. to 7 p.m.; Friday, 7:30 a.m. to 4:30 p.m.; Saturday, 9 a.m. to 1 p.m. |
| Two-week sess | Monday-Friday, 7:30 a.m. to 4:30 |

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San Jose, California 95114
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## THE CALIFORNIA STATE COLLEGES

The 19 campuses of the California State Colleges, spanning the state from Humboldt County in the north to San Diego in the south, represent the largest system of public higher education in the Western Hemisphere and one of the largest in the world. Current enrollment exceeds 212,000 full-time and part-time students. The faculty and administrative staff number approximately 10,000 .

Each college in this system, with a geographic and curricular character of its own, offers a basic program in the liberal arts. Course offerings leading to the bachelor's and master's degree and a limited number of joint doctoral degrees are designed to satisfy existing student interests while serving the educational and professional requirements of the state.

The California State Colleges are dedicated to rigorous academic standards. The primary faculty responsibility is the instructional process, with recognition of the necessary role of research in institutions of higher education.

Responsibility for the California State Colleges is vested in the Board of Trustees, appointed by the Governor, and its administrative officer, the Chancellor. The Trustees and the Chancellor set broad policy for the colleges while delegating responsibility for implementation to the colleges. A statewide Academic Senate, made up of representatives elected by the faculty at each college, recommends academic policy to the Board of Trustees through the Chancellor.

While the oldest of the colleges, San Jose State College, was founded over a century ago, the California State Colleges system under an independent Board of Trustees was created by the Donahoe Act of 1960.

The California State Colleges are now in a dynamic period of development. Prior to World War II there were seven State Colleges with a peak total enrollment of 13,000 . Since 1947, twelve new colleges have been established and sites have been selected for new campuses in Ventura, San Mateo and Contra Costa counties. Enrollment in the system is expected to reach 300,000 by 1980.

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 Administrative Assistant to the Business Manager Francis B. Harrison, M.B.A.
Business Services Officer Thomas J. White, A.B.
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Supervisor of Buildings and Grounds John L. Foster, B.S.

## LIBRARY

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Public Services Librarian J. Carlyle Parker, M.L.S.

Head Catalog Librarian Agnes L. Bennett, A.M.L.S.
Reference Librarian Audrey V. O'Brien, M.S.
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Catalog Librarian Orlen N. Gabrielson, M.L.S.

## GENERAL INFORMATION

## HISTORY OF THE COLLEGE

The College is one of eighteen institutions comprising the California State College system. Dr. J. Burton Vasche was appointed first president of the College. The College opened its doors for the first time on September 19, 1960, in temporary facilities at the Stanislaus County Fairgrounds in Turlock. The College, which in its first years limited enrollment to juniors and seniors, admitted its first freshman class in the fall of 1965 .

Gerard J. Crowley, upon the death of President Vasche, became acting president in June, 1962.

Dr. Alexander Capurso was appointed president of the College in March, 1963, by the Board of Trustees of the California State College system and assumed this post July, 1963.

The College moved to its new campus in June, 1965. New air-conditioned facilities, including a Library Building and Classroom Building, provide well-equipped facilities for the sciences, arts, and music, in addition to lecture and seminar rooms in other disciplines. Effort has been made to develop a campus outstanding in efficiency and beauty through the use of distinctive features, both in interior and exterior design. The master plan for the campus has been designed for an eventual enrollment of 12,000 students.

## PHILOSOPHY AND OBJECTIVES OF THE COLLEGE

The objectives of the College are two-fold:

1. To offer a liberal arts program of outstanding academic merit.
2. To provide professional training of high quality in areas such as Education and Business Administration.

In pursuing these objectives the College espouses certain basic principles:

Effective learning demands active participation and total commitment.

Learning is more than a quantitative acquisition of facts. In a liberal arts college it becomes ideally an imaginative recreation of knowledge with student and instructor cooperating in a free exchange of informed and responsible points of view.

A liberal arts education stresses principles and theories of knowledge. Though specific information and skills are necessary in modern education, they are best understood within a broad intellectual framework.

## General Information

The liberal arts properly lay emphasis upon the interrelatedness of knowledge without minimizing the importance of scholarly fields of intensive specialization. The College encourages students and faculty to cross departmental lines where possible.

The liberal arts combine a body of learning with an attitude of mind. The body of learning provides a basis for later specialization as well as wide involvement with academic and moral values. As an attitude of mind, through the joint efforts of several disciplines probing fundamental concepts, the liberal arts develop tools for more effective thinking, analytical judgment, critical evaluation, aesthetic appreciation, and sound choice making. The College does not consider the academic process as a categorical imperative: learning either for immediate ends or for long range self-development. Rather it views education as a comprehensive whole, necessary both for professional competence and for the fulfilment of individual potential.

The faculty and administration of the College hold that a true liberal arts program must be rigorous, exacting, stimulating, exciting, rewarding, and intellectually satisfying.

## THE LIBERAL ARTS BASE

The Liberal Arts base is designed to give knowledge of our cultural heritage, of the basic principles of science, and of the intellectual processes that underlie the fulfilment of a total college education. This base, more broadly known as General Education, is built upon the notion that over two or more years of college knowledge in some academic disciplines will be required eventually of all entering freshmen, while a choice of acquiring knowledge in certain other academic disciplines will be permitted in order to develop further the maturing process in those freshmen. All entering freshmen must be prepared to complete in that time span, however, specific amounts of required units of credit in the broad disciplinary families of social sciences, natural sciences, the humanities, and the arts. This liberal arts base, once completed, insures a beginning in the realization of the philosophy and objectives of the College.

## 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.

## DEGREE AND CREDENTIAL PROGRAMS

The College offers programs leading to the Bachelor of Arts degree and the Master of Arts degree.

The College offers programs of study leading to the following credentials which are fully accredited by the California State Board of Education:

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.
As part of these programs, internship opportunities are available for qualified candidates in elementary and secondary teaching.

For details of credential programs, see the section on Credential Programs and the sections on Education and Communication Arts and Sciences.

## QUARTER SYSTEM

In September 1965, the College converted from the 16 -week semester system to the quarter system, each quarter being approximately 11 weeks in length. The quarter calendar will allow the College to move into year-round operation by simply adding a fourth quarter. The typical student enrolls in four four-unit courses each term, enabling him to concentrate his efforts on fewer courses during a single term than normal under the semester 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 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 equipped to seat 350 readers. It features an outdoor reading area, 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 80,000 volumes and about 1,000 periodicals. Backfiles of most of these periodicals are avail-
able. The Library has recently become 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 new Library Building. About 4,500 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 1,200 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 all 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 see Admission to the College.

For information refer to the Office of the Associate Dean, Educational Services and Summer Session.

## INTERNATIONAL PROGRAMS

The California State Colleges offer academic year programs of study at a number of distinguished universities abroad. For 1969-70 the cooperating universities are: University of Aix-Marseille, France; Free University of Berlin and University of Heidelberg, Germany; The Hebrew University of Jerusalem and Tel Aviv University, Israel; University of Florence, Italy; Waseda University, Tokyo, Japan; University of Granada and University of Madrid, Spain; University of Stockholm and University of Uppsala, Sweden; National University, Taiwan. Academic work successfully completed at the cooperating universities
abroad may be applied toward the degree requirements of the College in accordance with college regulations.

A selection among applicants from all California State Colleges is made on the basis of academic, linguistic, and personal qualifications. The criteria are:
a. Upper division or graduate standing by the beginning of the academic year abroad;
b. Academic achievement;
c. Proficiency in the language of instruction;
d. Faculty recommendations.

Cost to the student includes round trip transportation from San Francisco to the host university, room and board for the academic year, and medical insurance. In 1969-70 these costs are: France, Germany, Spain, $\$ 2,300$; Israel, Taiwan, $\$ 2,000$; Italy, Japan, Sweden, $\$ 2,500$. Payments may be scheduled throughout the year.

Programs in Israel, Italy, Japan, Sweden, and Taiwan do not require previous linguistic preparation; applicants for all other programs must demonstrate adequate facility in the language of instruction at the host university.

Application for the 1970-71 academic year should be made early in the Fall semester of 1969. Detailed information may be obtained at College Office of the Dean of Student Affairs, or by writing to the Office of International Programs, The California State Colleges, 1600 Holloway Avenue, San Francisco, California 94132.

## ADMISSION TO THE COLLEGE

The College admits qualified high school graduates, transfer students from junior 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. 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 will be considered for admission under one of the following provisions. Except as noted, sub-

## Admission to the College

mission of the results of the College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Test (ACT) 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.
Business Administration: Mathematics, 4 years; English, 4 years.
Chemistry: Mathematics, 4 years; foreign language, 2 years (German preferred); chemistry, 1 year; physics, 1 year.
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.
History: History and/or social science, 4 years preferred; foreign language, 4 years preferred.
Mathematics: 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 Science: History and/or social science, 4 years preferred.
Psychology: Biology; mathematics, 4 years; English, 4 years.
Social Sciences Interdepartmental 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 Graduates and Residents. An applicant who is a graduate of a California high school or a legal resident for tuition purposes must have a grade point average and total SAT (or composite ACT) score which provides an eligibility index* placing him among the upper one-third of California high school graduates. The grade point average is based upon all high school work taken, excluding work completed in the freshman year as well as any courses in physical education or military science. The table below does not cover every case, but gives several examples of the test score needed with a given grade point average to be eligible for admission.


[^1]
## Admission to the College

Non-Residents Graduating from High Schools in Other States or Possessions. An applicant who is a non-resident for tuition purposes and who is a graduate of a high school in another state or a U.S. possession must have an eligibility index which would place him among the upper one-sixth of California high school graduates. The minimum required eligibility index is 3402 for the SAT (or 826 for the ACT) and is calculated as in the previous section.

Graduates of High Schools in a Foreign Country. An applicant who is a graduate of a foreign high school must have preparation equivalent to that required of eligible California high school graduates. The College will carefully review the previous record of all such applicants and only those with promise of academic success equivalent to that of eligible California high school graduates will be admitted.

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. Such applicants are not required to take the SAT (or ACT). 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 and Records.

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 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 Scholastic Aptitude Test (or ACT).

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.

Applicants with Fewer 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 continuous 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

Graduate students may be admitted with unclassified status if they have completed a four-year college course and hold an acceptable baccalaureate degree. Classified status in a graduate program is obtained only through formal application to the Dean of the College for master's degree programs or to the College Credentials Office 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.

## 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 accepted and it later becomes evident that admission will not be possible, it and any supporting documents will, at the applicant's request, be forwarded to any State College where space is still available. No additional application fee is required.

## ADMISSION PROCEDURE

## WHO NEED APPLY

An Application for Admission or Readmission form must be filed by any person who plans to enroll for a fall, winter, or spring quarter and who either was not enrolled for residence credit or audit courses, or

## Admission to the College

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 must apply for readmission with graduate standing in order to continue his enrollment. Enrollment in summer session or extension courses does not exempt a person from the above requirements.

Students Seeking Enrollment for Fewer than 7 Units. Students seeking to enroll in a fall, winter, or spring quarter for fewer than seven quarter units 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.)

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, available on request from the Admissions and Records Office, are accepted beginning January 1 for the fall quarter, September 15 for the winter quarter, and December 15 for the spring quarter. Applications for admission or readmission with all transcripts and supporting admission documents are due in the Admissions and Records Office March 1 for the fall quarter, November 15 for the winter quarter and February 15 for the spring quarter. Although applications will be accepted after the due date, the College cannot guarantee admissions processing for students who complete the application procedure after these due dates.

Although the College anticipates that it will be able to accommodate all students who are expected to enroll, it is possible that control of enrollment on a first-come, first-serve basis will be necessary because of budgetary limitations imposed on the California State Colleges. For this reason, and because priority in registration may be permitted based on the date a student completes the admission procedure, all applicants for admission are urged to apply as early as possible.

## APPLICATION FEE

A fee of ten dollars ( $\$ 10$ ) is charged for processing of applications for admission to the College. This fee is non-transferable, non-refundable and applied 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 applicant must request 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.

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

Applicants with Courses in Progress. An applicant who is in attendance at a school or college at the time of application 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 or form DD 295 with his application.

Graduate Students. 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 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 transcripts be sent directly to the Office of the Dean of the College or College Credentials Office, 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

## Admission to the College

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 units (sixty semester units) completed at regionally accredited colleges are required to take 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 this test if they do not file the results of a 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. Although the SAT is preferred the American College Test (ACT) is accepted as a substitute examination.

The Scholastic Aptitude Test (SAT) may be taken at the College and other testing centers throughout the world on the dates listed below. Applicants for admission should take the SAT not later than March for fall admission, July for winter admission, and January for spring admission. The test fee is $\$ 5.50$, payable at the time of application to take the test.

Saturday, May 3, 1969
Saturday, July 12, 1969
Saturday, November 1, 1969
Saturday, December 6, 1969

Saturday, January 10, 1970
Saturday, March 7, 1970
Saturday, May 2, 1970
Saturday, July 11, 1970

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. Application forms to take the test may be secured from high school and college counseling offices and the College Entrance Examination Board. Applicants are expected to request the College Board to release SAT score reports directly to the College.

Special institutional administrations of the SAT on dates to be announced prior to the admission deadlines will be arranged exclusively for applicants of the College. Interested applicants should contact the Office of the Associate Dean, Counseling and Testing, 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 more than 6 units; 2) former students of the College enrolling for more than 6 units who were not regularly enrolled at the College during any of the three quarters immediately preceding. All other admitted students must submit a health history statement. Appropriate forms will be provided all admitted students.

## 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.

## 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 Major or Minor.)

While a student may elect to graduate under the degree requirements in effect at the time of his admission, 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

## Admission to the College

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 units, 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 elective units.

## CREDIT FOR MILITARY SERVICE

Undergraduate students who have been in military service may receive credit toward a baccalaureate degree. Courses taken at military service schools if appropriate in purpose, scope, and depth 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.

## Admission to the College

## ACADEMIC ADVISEMENT

Academic 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. Freshmen, however, must first arrange an initial advisement conference through the Counseling and Testing Center. The Counseling and Testing staff, along with a group of faculty advisers will provide assistance through the medium of testing and counseling for students who are uncertain concerning their choice of major and/or its concomitant vocational choice, as well as for students requiring only verification of an existing choice. Assignment or reassignment of advisers is made through the academic departments on official declaration or change of major. (See Declaration or Change of Major or Minor.)

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. Students are encouraged to consult their adviser at any time as the need arises. Specific days for registration advising are designated each quarter in the Academic Calendar to provide a time for those new and continuing students who need to consult their adviser for assistance in determining their program of courses for the approaching term.

A student is prepared for an advising conference only after he has studied applicable catalog requirements, reviewed course offerings in the Class Schedule, and prepared a Trial Study List. Materials a student must take to the advising conference include the prepared Trial Study List, the Evaluation of Credit form (if issued), transcript(s) and cata$\log (s)$ of former college(s), SSC grade reports, and a program planning form (if issued).

## 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, if needed, should 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. A student may not receive credit in any course for which he is not registered. 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.

## CREDENTIAL PROGRAMS

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 of the Credentials Office under the direction of the Coordinator of Credential Programs. Applications for admission to a credential program, assignments to a credential adviser, placements in student teaching, and institutional recommendations for life credentials are all coordinated by the Credentials Office.

## ADMISSION TO A CREDENTIAL PROGRAM

The student who plans to apply for admission to a credential program needs to become familiar with the eligibility requirements as stated in the College catalog which is current at the time he expects to be admitted to a credential program. 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 $2.25(\mathrm{C}+$ ) or a 2.50 grade point average in his most recent 45 quarter units of course work. Any deviation from this grade point standard will be considered only when the student files an official petition form (CAC-4) presenting compensating factors and supporting verification.

Preliminary registration with the Credentials Office is made by the student no later than the second week of the quarter prior to seeking enrollment in his first credential course(s). At that time, a Credentials Admissions Program (CAP) folder is initiated. This folder includes the following information that is to be completed by the student prior to eligibility for enrollment:

1. Application for admission to program.
2. Official transcripts of all college work except SSC.
3. Autobiography emphasizing college interests and activities with children or young people.
4. Three letters of recommendation, including one from an instructor in his major.
5. Health statement (top portion of State form by student).
6. Fingerprint cards (2).
7. Speech and hearing clearance.

Conditional admission to a credential program is granted when the student satisfactorily completes the folder. A credential adviser is then assigned for programming by the appropriate coordinator. After advisement, a conditional admission number and card are issued to the student for admittance to the first credential course(s).

Admission to a credential program remains conditional until the following steps are completed: (1) residency and admission requirements in the current catalog are satisfied; (2) a grade of "C" or better has been received in the first professional course(s); and (3) the Credentials Admissions Committee has acted favorably on the candidates under standards set forth in the California Administrative Code, Title 5, Education. Section 41101 of this code requires that each teacher candidate must be evaluated in terms of academic aptitude, scholarship, professional aptitude, physical fitness, fundamental skills, personality and character, and many-sided interests.

Admission to a credential program then becomes official and a credential card is issued to the student. This official admission is prerequisite to the following: (1) all courses which follow the first one(s) in which the student enrolls; (2) placement in field work experiences; (3) recommendation by the College for issuance of a credential; and (4) referral to and by the College professional placement service.

## CONTINUANCE IN A CREDENTIAL PROGRAM

Retention in a teaching credential program is based upon continuous satisfactory student performance as evaluated by the Credentials Admissions Committee. 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

## DEANS' LIST OF HONOR STUDENTS

Each quarter the Dean of the College and the Dean of Student Affairs jointly publish a list of undergraduate honor students. To qualify for the Deans' 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 $3.5\left(\mathrm{~B}+{ }^{\circ}\right)$ grade point average for all course work attempted at the College.

## Academic Standards

## GRADING SYSTEM


B-Very Good ___ 3 grade points per unit
C-Satisfactory ___ 2 grade points per unit

F-Failing $\qquad$ 0 grade points
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 average; 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 $\mathbf{F}$ if not removed by the last day of the third following quarter, except when an extension of time has been granted
H-Audit No effect on units earned or grade point average
NC-No Credit $\qquad$ No effect on units earned or grade point average
NR-No Report $\qquad$ No grade reported by instructor
W-Withdrawal, Ungraded___N 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 Schedule 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 departmentally approved for credit grading.

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" indicates that a student is eligible to continue in attendance and is not under academic disqualification or disciplinary suspension from the College. A student in "Good Standing" may, however, be enrolled on probation.

Probation: Probation designates a student whose academic achievement has been unsatisfactory. A student whose undergraduate or graduate grade point average is below 2.0 (C), based upon all course work attempted at the College and/or other colleges, is placed on probation. A student on probation is eligible to continue his attendance at the College.

Disqualification: Poor academic achievement may lead to disqualification. A disqualified student is not in "Good Standing" and is not eligible to continue his attendance at the College. A student will be subject to disqualification if he:

1) Accrues, as a lower division student (less than 90 quarter units of college work completed), an overall or SSC grade point deficiency of 23 grade points or more.
2) Accrues, as a junior ( $90-1341 / 2$ quarter units of college work completed), an overall or SSC grade point deficiency of 14 grade points or more.
3) Accrues, as a senior ( 135 quarter units of college work completed or more) or a graduate student, an overall or SSC or graduate grade point deficiency of 9 grade points or more.
4) Fails to earn a 2.0 (C) grade point average while on probation.
5) Does not earn at least a 1.0 (D) grade point average during any quarter.
6) Neglects to remove any grade point deficiency within three quarters of admission on probation or of the quarter in which the grade point deficiency was incurred.

Reinstatement After Disqualification: After completion of the period of disqualification and after fulfillment of any other requirements stipulated, a student may apply for readmission and petition for reinstatement through the Admissions and Records Office.

## STANDARDS FOR ORAL AND WRITTEN EXPRESSION

Students are expected to demonstrate an appropriate standard of English in all of their college work. Failure to do so may be considered in their final evaluation.

## POLICIES AND PROCEDURES

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

## GENERAL EDUCATION CREDIT

The Class Schedule 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 current catalog section entitled General Education, which lists acceptable General Education courses.

## CLASS ATTENDANCE

Regularity in attending classes is assumed. Students are allowed no specified number of absences, but legitimate absences for which instructors will make allowances are: illness, accident, death in family, 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.

## 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, unless he merits a WS grade. An auditor is not permitted to take examinations in the course. An audited course will not be posted on a student's permanent academic record unless he has formally registered for the course and, in the opinion of his instructor, has attended a substantial number of class meetings.

## CONCURRENT ENROLLMENT

A matriculated undergraduate student or a graduate 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 and from the Registrar. Approval will be granted only when the course(s) is not offered by the College. Request for Approval of Concurrent Enrollment forms are available at the Admissions and Records Office forms rack. Credit may not be granted for units earned during concurrent enrollment unless
prior approval is obtained. Such approval is necessary even though the student is not enrolled in resident courses at the College during the same quarter in which he is enrolled at another institution or for the College's extension courses. Although approval for concurrent enrollment may be granted, the acceptance of credit depends on evaluation policy. (See Evaluation and Acceptance of Credit.)

## OFFICIAL PROGRAM LIMITS

A student electing during 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 to the Student Affairs Office. Registration for excess units must be approved by the Dean of Student Affairs and the Dean of the College. 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 from the Student Affairs Office.

## 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 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. Students who wish to secure unit credit toward a degree under this plan must register at a regular registration period for the course to be completed by examination. The letter grade earned 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.

## INDIVIDUAL STUDY COURSES

Individual study courses are available in certain fields to a student who has demonstrated capacity for independent study and superior ability in regular course work in those fields at the College. 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 may 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

## Policies and Procedures

forms rack. The request for individual study must be approved by the student's individual study instructor, major adviser, and the department head concerned. 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 MAJOR OR MINOR

A student who selects or changes his major after admission must file a Declaration or Change of Major or Minor form with the Admissions and Records Office. This request form must be endorsed by his current major adviser, and department head of his new major. The requirement and procedure are similar for selection or change of a minor.

## 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 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 $W U$, 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 be absent for an academic year may for valid reasons 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.

## 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.

## Policies and Procedures



## GRADE REPORTS TO STUDENTS

A report of final grades in all courses will be mailed to a student after the conclusion of each quarter and summer session. A student who desires his grades mailed to a different address than that indicated on his address card at the time of registration must notify the Admissions and Records Office one week prior to the end of the term.

## CHANGE OF ADDRESS

A student who changes his local 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.

## 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 $\$ 1.00$ 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
Regular Students (over 6 units)

Associated Student's Fees







Except that no student shall be required to pay an aggregate amount in excess of $\$ 20.00$ for the entire year.
Student Union Fees




OTHER FEES AND CHARGES (in addition to registration feos)
Nonresident tuition-(maximum $\$ 297.00$ per quarter) subject to change Per unit, as follows:
For the first 14 units (per quarter)
For the 15th unit and over (maximum) _-_ 297.00
Foreign Nonresident tuition (maximum $\$ 85.00$ per quarter)
Per unit, as follows:
For the first 14 units (per quarter)



## Fees and Refunds

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 ..... 15.00
Extension Courses--per unit:
Lecture and Discussion Courses ..... 12.00
Activity Courses ..... 15.50
Science Laboratory Courses ..... 24.00
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, two-wheeled vehicle, per quarter ..... 1.00
Alternate vehicle (auto) in addition to fee for first vehicle, per quarter ..... 1.00

## NONRESIDENT STUDENTS

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

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

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

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

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

## REFUND REGULATIONS

Written application for refund of fees must be made on the forms available from the Admissions and Records Office. The application must be received in the Admissions and Records Office not later than the 14th calendar day following the first day of instruction.

Upon withdrawal from college, the State will refund the total Material and Service Fee less $\$ 10.00$. Upon changing from Regular to Limited status, the State will refund the difference between the two applicable Material and Service Fee less \$5.00.

For each unit of nonresident fee charged, the State will refund the entire fee charged during the first week of each quarter; thereafter $90 \%$ will be refunded the 2 nd week, $70 \%$ the 3 rd week, $50 \%$ the 4th week, $30 \%$ the 5 th week, $20 \%$ the 6 th week. There will be no refund after the 7th week.

Refunds for parking will be given upon application if the parking decal is returned. For the first 25 days of each quarter, $66 \%$ of the fees charged will be refunded. Between 26 days and 50 days, $33 \%$ will be refunded and no refunds will be given after 51 days.

Upon withdrawal from college, the student body fee and student union fee charged will be refunded up to the deadline if the student body card is received with the application. Upon changing from regular to limited status, the refund of the difference will be refunded.

No refunds can be made if the application is received after the stated deadlines.

## STUDENT AFFAIRS

Services are available to aid students in evaluating their own capabilities and objectives and to assist them in selecting activities which will help them gain maximum benefit from their college experience. These and other services are coordinated by the Dean of Student Affairs and include orientation, counseling, group and individual testing, placement, part-time jobs and summer work, student health and welfare, loans and scholarships, student activities, housing, and alumni.

## COUNSELING AND TESTING SERVICE

The Counseling and Testing Office provides a variety of services which may be broadly defined as psychological in character and related to problems of student adjustment and evaluation in an academic environment. The Counseling and Testing Office, under the direction of the Associate Dean, Counseling and Testing, is primarily responsible for assisting students with problems of vocational choice, the selection of an appropriate academic major (in consultation with the student's academic adviser), educational weaknesses, and personal-social-emotional adjustment. More specifically, the Counseling and Testing Office is able to assist students with problems which can be broadly classified into such categories as personality and social adjustment; and educational, vocational, financial, and health problems. Examination of these problem

## Student Affairs

categories will make it readily apparent that they are an attempt to describe difficulties arising from the individual's attempt to cope with his total environment.

The Counseling and Testing Office is also able to provide administration, scoring, and interpretation in connection with a wide variety of psychological tests, the results of which can serve such purposes as admission of students to the College; acceptance and placement of students into particular academic programs; providing information for both student and counselor as a basis for counseling on educational, vocational, and personal problems.

Students are urged to take advantage of the services offered by the Counseling and Testing Office as soon as it becomes apparent that a problem exists which may adversely affect their ability to cope satisfactorily with their environment.

The Counseling and Testing Office is located in the Library Building, Room 102. The office is open from 8:00 A.M.-5:00 P.M., Monday through Friday during the entire year.

## ADMISSIONS COUNSELING

The Director of Admissions and Records assists students in interpreting admissions requirements and in filing applications for admission. Problems concerning evaluation of transcripts should be directed to the Admissions and Records Office.

## ACADEMIC ADVISING

Academic advising is primarily the responsibility of faculty members in the specific academic areas. The Counseling and Testing staff, along with a group of faculty advisers, provides assistance through the medium of testing and counseling for students who are uncertain concerning their choice of major and/or its concomitant vocational choice, as well as for students requiring only verification of an existing choice. Any student who is uncertain of his choice of academic major may avail himself of the assistance offered by the Counseling and Testing Office until a definite academic goal is chosen. (See Academic Advisement and Registration.)

## INTERNATIONAL STUDENTS

Special services for international students are coordinated by the Counselor-Financial Aid/Foreign Students. 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 the community.

The International Club is a chartered campus organization whose objective is to help develop community awareness of, and interaction with, international cultures and affairs through educational and social

## Student Affairs

programs. The College maintains a close liaison with the Citizens Committee for International Students of Turlock. Details regarding the International Student Program may be obtained in the Office of the Counselor for Financial Aid/Foreign Students.

## STUDENT FINANCIAL ASSISTANCE

Scholarships. A number of scholarships and awards are offered each year to new and enrolled students on the basis of financial need, scholastic attainment, character, and professional promise. Some scholarships are limited to a particular field of study. These funds, in general, are administered by the Financial Aid Office.

College Student Loan Fund. These loans are generally available on an emergency or short-term basis and are not meant to completely cover expenses. Each student would be expected to enroll with enough funds to cover all normal expenses for the quarter. Loans are usually limited to $\$ 75.00$ and repayment is expected in $30-45$ days.

National Defense Student Loan. Stanislaus State College participates in the Federal Loan Program provided by Title II of the National Defense Education Act of 1958. The program was established to provide low-interest loans to deserving students with financial need. Undergraduates may borrow a maximum of $\$ 1,000.00$ a year to a total of $\$ 5,000.00$ and graduates may borrow $\$ 2,500.00$ a year to a total of $\$ 10,000.00$. Cancellation of part, or all, of the loan is possible for those students entering the education profession.

Inquiries should be directed to the Financial Aid Office.
Federal Insured Student Loan. Undergraduate and graduate students may borrow up to $\$ 1,500.00$ a year from a commercial lending institution. If the adjusted family income is less than $\$ 15,000.00$ a year, the Federal Government will pay the interest while the borrower is a full-time student. The student assumes $7 \%$ interest on the unpaid principal upon graduation. Detailed information and applications are available from participating lending institutions or the Financial Aid Office.

Work-Study Program. Stanislaus State College participates in the Federal Work-Study Program as provided for in the Economic Opportunities Act of 1964. Students in need of part-time employment who are from low income families may qualify for jobs. Participants may work an average of 15 hours a week while classes are in session and 40 hours a week otherwise. Inquiries should be directed to the Financial Aid Office.

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Educational Opportunity Grant. Stanislaus State College participates in the Federal Grant Program as provided for in the Higher Education Act of 1965. Deserving students may be awarded a grant of from $\$ 200.00$ to $\$ 1,000.00$ a year. Inquiries should be directed to the Financial Aid Office.

Part-Time Employment. The Financial Aid Office maintains a listing of part-time employment from area employers. Following registration all interested students should complete an Employment Reference Card used for referral and placement. In addition to the Employment Reference Card a constant check of the employment board should be maintained.

Waivers of Non-Resident Fees. Certain non-resident and foreign visa students may be eligible for a reduction in tuition fees. Please refer to the Financial Aid Office for details.

Other Sources of Student Aid. More detailed information on work opportunities, loans and scholarships together with specifically funded loans and scholarships for which a student may apply can be obtained by securing a copy of the Financial Aid Program Announcement from the Financial Aid Office, Stanislaus State College, Turlock, California 95380.

The programs listed are programs which Stanislaus State College administers and are by no means the end of aid possibilities, for all available programs in the United States are too numerous to mention. Additional information may be obtained by writing to the NEA Research Division, 1201 Sixteenth Street, N.W., Washington, D.C., for "Guide to Sources of Information on Scholarships" and to North American Educational Computer Services, Inc., Princeton, New Jersey 08450.

## Scholarship and Loan Funds

American Assyrian Civic Club of Turlock
Beta Delta Subchapter of Alpha Delta Kappa-Teachers Honorary
California Congress of Parents and Teachers Elementary Education
California Retired Teachers Association-Laura Settle
Edwin O. and Mae M. Jones Memorial
Epsilon Nu of Delta Kappa Gamma
Faculty Women's Club of Stanislaus State College
Fine Art Club of Stanislaus State College
Fred C. Beyer Memorial
J. Burton Vasche Memorial

Los Compañeros Club of Stanislaus State College
Merced Venture Club
Newman Club of Stanislaus State College
Rotary Club of Turlock
Soroptimist Club of Turlock

Turlock Refrigeration Company<br>Walter A. Fisher Memorial<br>White Scholarship and Loan

## 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 California 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. 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. This form need only be requested once each academic year and is used to certify admission to the College, satisfactory progress, and completion or termination of a degree 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 or from the Admissions and Records Office.

## Student Affairs

## HOUSING

The College maintains a current listing of off-campus rooms, apartments and houses. These accommodations are neither inspected nor supervised by the College. Immediately adjacent to the campus is a privately owned co-educational dormitory and an apartment complex. Students, along with their parents, are expected to take responsibility for assessing desirability and adequacy of available accommodations. Students interested in locating housing are encouraged to contact the Student Housing Office at the College as early as possible prior to enrollment so that maximum assistance can be provided. No charge is made for housing locator service.

## FOOD SERVICES

Food services are available at the College Cafeteria. Meals are served from 8:00 a.m. to 4:00 p.m. five days a week. Services range from full meal to sandwiches and snacks.

## BOOKSTORE

The Kiva Bookstore, owned and operated by the Stanislaus State College Foundation, carries all required and recommended texts. The store also stocks supplies needed in the various courses.

## STUDENT HEALTH

The objective of Student Health Services is to assist the student in maintaining an optimum state of health, both physical and mental, so that he may realize to the fullest the opportunities afforded by the College.

## HEALTH EXAMINATIONS

A complete physical examination by the student's private physician is required for the following categories of admitted students: 1) new students enrolling for more than 6 units; 2) former students of the College enrolling for more than 6 units who were not regularly enrolled during any of the 3 quarters immediately preceding. 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 seeking private medical care with a physician of his choice.
The College has a Health Center in Room 117A of the Classroom Building, which makes available emergency medical services to all students. Referral Services: Health or medical problems beyond the ability of the Health Center staff to treat are referred to physicians in
the community. Basic out-patient medical services are provided as part of the materials and services fee paid by each regular student (more than 6 units) upon his enrollment in the College.

## HEALTH INSURANCE PLAN

A voluntary supplemental hospital/surgical insurance plan is available to all regular students at a cost of $\$ 47.16^{*}$ for a full calendar year. Foreign students must carry the supplemental coverage or furnish satisfactory proof of equivalent coverage.

The College urges all students to be covered by some form of hospital/surgical insurance as the campus Health Center is not equipped with an infirmary.

Detailed information is available at the Health Center, or in the Office of the Dean of Student Affairs.

## STUDENT ACTIVITIES

A program of activities is planned to satisfy a broad range of student interests. A representative student government serves as the official voice of the student body in its relations with the faculty and the administration. Student activities are coordinated with the academic program of the College and provide opportunities for the development of responsibility, leadership, and maturity. Membership in student organizations is determined without regard for race, color, religion, or national ancestry. Inquiries pertaining to student activities may be directed to the President of the Associated Students or to the Dean of Student Affairs.

The following student groups have attained full status as campus organizations: Associated Women Students, Biology Club, Business Club, Campus Christian Fellowship, Circle K, Collegium Musicum, Fine Art Club, French Club, Grub Street Society, International Club, KSSC (Voice of Stanislaus), Los Compañeros, Newman Club, Ski Club, Students for a Political Renaissance, Theatre Society, and Tri Tau Club.

## STUDENT CONDUCT AND RESPONSIBILITY

The College assumes that students are mature individuals who have a serious purpose in attending college and that they will assume responsibility for their personal behavior according to acceptable standards of conduct and good taste. In return for the broad freedom granted to students as individuals and as organized groups, the individual student assumes certain obligations to obey established law and regulations, to conduct social and other activities in a manner compatible with the purposes of the College, and to pursue courses of study with sincerity and diligence.

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## Student Affairs

This assumption on behalf of students and their organizations continues until individuals by their actions create situations requiring that measures be taken possibly leading to (a) loss of privileges, (b) disciplinary probation, (c) official censure, (d) suspension, or (e) expulsion from the College.

Actions warranting such measures will include the violation of rules and regulations governing student conduct as duly promulgated by authorized officials of the California State College System and of Stanislaus State College and those violations of public law punishable under the provisions of pertinent Codes of the State of California. (Student Conduct Policy adopted 5/23/67)

## PLACEMENT

The College provides placement services to assist qualified students and alumni in securing appropriate full-time or part-time employment. Placement services include: testing and counseling on vocational choice and selection; counseling on proper techniques for applying for a position; assistance with the preparation of placement packets and forwarding them to prospective employers; listing of available positions; and arranging interviews. Responsibility for preparation of the placement packet and for actually seeking a position rest with the individual.

## TEACHER PLACEMENT

As a general rule a student becomes eligible for teacher placement when he has been accepted into a credential program, is recognized as having had the equivalent of student teaching experience at the College, and is recommended for placement services by the Department of Education. Other students may be eligible, under exceptional circumstances. Confidential placement files should be initiated by students during the quarter preceding student teaching. Prospective candidates may obtain an informational brochure entitled Teacher Placement Service Announcement, as well as assistance in completing the placement packet at the Placement Office.

## BUSINESS AND PROFESSIONAL PLACEMENT

Placement services are available to students who have received degrees from the College, or who will have completed a minimum of 36 quarter units at the College and are recommended by the chairman of their department or division. It is recommended that students register for business and professional placement upon attaining senior standing. Prospective candidates may obtain assistance in completing the placement packet at the Placement Office.

## PART-TIME AND SUMMER EMPLOYMENT

A list of part-time job opportunities is maintained as a part of the College's Student Aid Program. Directories and other data concerning summer employment opportunities for college students are also available. The College attempts to assist students in locating jobs as closely related as possible to their major interests. Students anticipating need for part-time summer employment are encouraged to contact the Financial Aid Office as early as possible so that maximum assistance can be provided.

## GRADUATE RECORD EXAMINATIONS

The College is a testing center for the Graduate Record Examinations (GRE) of the National Program for Graduate School Selection. The GRE are required by a number of colleges throughout the United States for admission to postbaccalaureate degree programs. These examinations include a basic graduate aptitude test and advanced tests in the following subject fields: Anthropology, Biology, Business, Chemistry, Economics, Education, Engineering, French, Geography, Geology, History, Literature in English, Mathematics, Music, Philosophy, Physical Education, Physics, Political Science, Psychology, Sociology, Spanish and Speech.
The Graduate Record Examinations will be administered on a national basis in the following months during 1969 and 1970:

April 26, 1969
July 12, 1969
October, 1969
December, 1969

January, 1970*
February, 1970*
April, $1970^{*}$
July, 1970*

Students must register with the Educational Testing Service by mail to take the GRE and must observe the registration closing dates listed above. Registration forms, Bulletins of Information for Candidates, and information concerning the Graduate Record Examinations are available at the Office of the Associate Dean, Counseling and Testing or by letter from the Educational Testing Service, 1947 Center Street, Berkeley, California 94701.

## ALUMNI

The Alumni Association maintains a close tie with the College. It is organized for the following purposes:

1. To assist the College in developing its human and material resources, with the objective of achieving the highest standards of academic excellence.
2. To encourage creativity and research in all areas.
[^3]
## General Requirements for Degrees

3. To provide avenues by which the alumnus may contribute to the advancement of knowledge.
4. To maintain and strengthen bonds between the alumnus and the College to the mutual benefit of both through the stimulation of continual intellectual growth.
5. To promote the mutual welfare of all members.

Inquiries concerning alumni activities may be directed to the Stanislaus State College Alumni Association, in care of the Dean of Student Affairs.

## THE COLLEGE FOUNDATION

The College Foundation has been organized to provide essential services which cannot be provided from State appropriations. On behalf of the College, the Foundation receives private gifts and public grants. These include contributions to loan and scholarship funds, the library, laboratories, and special collections, as well as research grants and general donations. The Foundation also maintains the College Bookstore and the College food service.

## 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 remains in continuous enrollment pursuing the same objective may elect to meet the graduation requirements in effect either at the time of his entering the College and a degree program 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.

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 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 units attempted at the College.

## GENERAL EDUCATION

A General Education program of courses and units, distributed as indicated below, is required. This program has been developed by the faculty to provide breadth and depth of education through a variety of intellectual and creative 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 fulfillment of major requirements. The College accepts certification of general education-breadth requirements by another accredited institution according to regulations of the California Administrative Code.

## Nafural Sciences

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

1. BIOL 101. Principles of Biology, 5 units

ZOOL 102. Principles of Zoology, 5 units
BOTY 103. Principles of Botany, 5 units
ENTO 300. Principles of Entomology, 5 units.
2. CHEM 101. Principles of Chemistry I, 5 units

CHEM 102. Principles of Chemistry II, 5 units
PHSC 100. Introduction to Natural Sciences, 5 units
PHYS 101. Mechanics and Heat, 5 units

## General Requirements for Degrees

PHYS 102. Electricity and Optics, 5 units
ASTR 200. Descriptive Astronomy, 4 units
GEOL 200. Principles of Geology I, 4 units
GEOL 201. Principles of Geology 1I, 4 units

## Social Sciences

1. One of the following courses covering United States history: *

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: *
PSCI 202. American Government, 4 units
3. Two courses from one of the following groups:
a. ANTH 205. Introduction to Human Origins, 4 units

ANTH 207. Primitive Social Systems, 4 units
b. ECON 250. Principles of Economics I, 4 units

ECON 251. Principles of Economics II, 4 units
ECON 310. Economic History of Western Civilization, 4 units
c. HIST 101. Western Civilization I, 4 units

HIST 102. Western Civilization II, 4 units
HIST 361. Colonial America, 4 units
d. PSCI 213. Comparative Government, 4 units

PSCI 331. International Relations, 4 units
e. SOCL 201. Introduction to Sociology, 4 units

SOCL 301. Race and Ethnic Group Relations, 4 units
SOCL 331. Social Stratification, 4 units
4. One course in general psychology:

PSCY 201. Incroduction to Psychology, 4 units

## Humanifies

One course from each of the following groups:

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

ENGL 202. Introduction to Literature Il, 4 units
ENGL 215. Perspectives on 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
MUS 100. Introduction to Music, 4 units
MUS 241. Chorus, 1 unit $\dagger$
MUS 242. Choral Ensemble, 1 unit $\dagger$
MUS 243. Instrumental Ensemble, 1 unit $\dagger$
MUS 244. Concert Band, 1 unit $\dagger$

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## General Requirements for Degrees

## Basic Skills

1. The following sequence in English composition courses:

ENGL 100. Freshman Composition, 4 units
ENGL 200. Sophomore Composition, 4 units
2. One basic course in oral expression: **

SPCH 200. Speech Communication, 4 units

## Additional Courses

1. One health course: *

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

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. These courses must be selected from those listed above under the categories Natural Sciences, Social Sciences or Humanities, or from the list below. Only courses outside the major field of study are applicable.
BIOL 263. Conservation of Natural Resources, 3 units
BIOL 332. Genetics, 3 units
BIOL 363. Ecology, 4 units
BIOL 381. Evolution, 3 units
CHEM 103. Principles of Chemistry III, 5 units
CHIN 101. Elementary Chinese I, 4 units
CHIN 102. Elementary Chinese II, 4 units
CHIN 103. Elementary Chinese III, 4 units
DRAM 220. Introduction to Theatre, 4 units
DRAM 230. Theatre Workshop, 2 units
DRAM 421. History of the Theatre, 4 units
EDUC 200. Introduction to Education, 2 units
FREN 101. Elementary French I, 4 units
FREN 102. Elementary French II, 4 units
FREN 103. Elementary French III, 4 units
FREN 201. Intermediate French I, 4 units
FREN 202. Intermediate French II, 4 units
FREN 203. Intermediate French III, 4 units
FREN 311. Composition and Conversation, 4 units
FREN 312. Advanced Oral and Written Composition, 4 units
GERM 101. Elementary German I, 4 units
GERM 102. Elementary German II, 4 units
GERM 103. Elementary German III, 4 units
GERM 201. Intermediate German I, 4 units
GERM 202. Intermediate German II, 4 units
GERM 203. Intermediate German III, 4 units

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## General Requirements for Degrees

MATH 100.
Math for Liberal Arts Students I, 5 units
MATH 101. Math for Liberal Arts Srudents II, 4 units
MATH 110. College Algebra and Trigonometry, 4 units
MATH 210. Finite Mathematics, 4 units
MUS 301. History and Literature I, 3 units
MUS 302. History and Literature II, 3 units
MUS 303. History and Literature III, 3 units
PHIL 110.
Deductive Logic, 4 units
PHIL 111. Inductive Logic, 4 units
PHYS 103. Modern Physics, 5 units
SPAN 101.
SPementary Spanish I, 4 units
SPAN 102. Elementary Spanish II, 4 units
SPAN 201.

General Education Program Total-70 quarter (47 semester) units
NOTE: The College certifies completion of General Education-Breadth requirements to another institution according to regulations of the California Administrative Code only when all above requirements have been fulfilled or when all requirements in one of the categories of Natural Sciences, Social Sciences, Humanities or Basic Skills has been fulfilled.

## MAJOR

The major consists of a pattern of upper division courses which are prescribed by the department or division 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.

The College offers, programs leading to the Bachelor of Arts degree with a major in the following areas:

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

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

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

## 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 (except in physics) and a minimum of 22 quarter units (except in physics) 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 | Fine Art | Physical Sciences |
| :--- | :--- | :--- |
| Biology | French | Physics |
| Business Administration | History | Political Science |
| Chemistry | Mathematics | Psychology |
| Drama | Music | Sociology |
| Economics | Philosophy | Spanish |
| English | 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 bacçalaureate 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.

[^6]
## Goneral Requirements for Degrees

(3) Maintain at least a 2.0 (C) grade point average for all Stanislaus State College 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.

## 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 Academic Affairs Office 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 Graduate Dean, or 3) academic ability to succeed in a graduate program as evidenced by achievement in a program 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 Graduate Dean.

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## 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 Graduate Dean are acceptable in the unit requirements. Only in exceptional cases and with departmental recommendation and approval of the Graduate Dean 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 18 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 from extension courses or transfer credit, 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 Graduate Dean, it may be changed with recommendation of department faculty and approval of the Graduate Dean.

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.

## General Requirements for Degrees

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 Graduate Dean a prospectus for a thesis or project which has been approved by the department.

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 Graduate Dean. The comprehensive examination carries no unit credit.



## ANNOUNCEMENT OF COURSES

## COURSE NUMBERING SYSTEM <br> DEPARTMENTAL REQUIREMÉNTS <br> COURSE DESCRIPTIONS

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## COURSE NUMBERING SYSTEM

## COURSE LEVEL IDENTIFICATION

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.
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:

| 492, 592 and 692 | rkshops |
| :---: | :---: |
| 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.

## 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: (Subject) 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.

# Anthropology 

Alfred W. Bowers, Ph.D., Professor, Coordinator<br>Nancy J. Schmidt, Ph.D., Assistant Professor<br>Richard E. Ross, M.A., Assistant Professor

The Division of Arts and Sciences 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 36 upper division units as approved by the major adviser.
4. Completion of a minor is not required.

DEGREE 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 36 upper division units distributed as follows:
Non-Western Cultures, The American Indian8

Archeology, Physical Anthropology … 8


DEGREE MINOR IN ANTHROPOLOGY
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 competence.

## 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 (4)

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 stady 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.

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

## Upper Division <br> 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 societies 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.

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## Anthropology

## 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 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 populations. Prerequisites: 8 units of upper division credit in anthropology or consent of instructor.

## ANTH 411. Community Studies

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

ANTH 412. Contemporary Civilizations I (4)
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 (4)

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 or consent of instructor.

## Anthropology

## 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.

## 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 (3-4)

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.

## ANTH 327. New World Archeology (4)

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 (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

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

# Biological Sciences 

Steve J. Grillos, Ph.D., Professor, Chairman<br>Glenn A. Hackwell, Ph.D., Associate Professor<br>James C. Hanson, Ph.D., Associate Professor<br>Perpetuo S. Mayol, Ph.D., Assistant Professor<br>Bobby J. Neal, Ph.D., Assistant Professor<br>Judith A. Brown, M.S., Assistant Professor

The 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 sciences, 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 36 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.

[^9]The Major ..... Units
BIOL 332. Genetics ..... 3
BIOL 351. Cellular and Molecular Biology ..... 3
BIOL 363. Ecology ..... 4
BIOL 496. Seminar in Biology ..... 3
Course in botany (upper division) as approved by major adviser ..... 4
Course in physiology (upper division animal or plant) as approved by major adviser ..... 4
Courses in zoology (upper division) as approved by major adviser ..... 4

+ Courses as approved by major adviser ..... 25
Total ..... 50
DEGREE MINOR IN BIOLOGICAL SCIENCES
( 31 units, to include at least 16 units in upper division)
Lower Division

BIOL 101. Principles of Biology, 5 units
ZOOL 102. Principles of Zoology, 5 units
BOTY 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 sciences.
2. Secondary credential candidates must complete 9 units in courses in biological sciences as postgraduate work and receive approval 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 Blology <br> Lower Division

## BIOL 101. Prineiples 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

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## Biological Sciences

conservation movement and present day conservation problems such as air and water pollution. (Lecture 3 hours) Prerequisite: None.

## Upper Division

## EIOL 322. General and Cellular Physiology (5)

Physico-chemical properties of protoplasm, permeability, metabolism and nuclearcytoplasmic interaction. (Lecture, 3 hours; laboratory, 6 hours) Prerequisite: One year college level biology or equivalent; CHEM 101, 102, and 103 are recommended.

BIOL 332. Genetics (3)
Mechanisms of inheritance and relationships of heredity 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.

## IIOL 334. Genetics Laboratory (1)

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

## BIOL 351. Cellular and Molecular Biology (3)

Basic concepts of cellular phenomena dealt with at the molecular level of organization. (Lecture, 3 hours) Prerequisite: One year college level biology or equivalent; CHEM 101, 102, 103 are recommended.

BIOL 353. Principles of Microbiology (4)
Structure, classification, physiology, distribution, and life histories of microorganism. (Lecture, 2 hours; laboratory, 6 hours) Prerequisite: BIOL 101 or BOTY 103, or equivalent.

## BIOL 363. Ecology (4)

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

## EIOL 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.

## BIOL 451. Histological and Cytological 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 495. 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.

## BIOL 496. Seminar in Biology (1)

Presentations and discussions of selected biological phenomena through study of biological literature. (Discussion, 1 hour) May be repeated for a total of 4 units. Prerequisite: Consent of instructor.

BIOL 498. Individual Study (3-4)
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.

BIOL 598. Individual Study (3-5)
For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

# BOTANY <br> Lower Division 

## BOTY 103. Principles of Botany <br> (5)

Basic botanical principles common to the plant kingdom. Principles of plant biology and the major types and groups of plants; physiology, anatomy, ecology, classification, and evolution of plants. (Lecture, 4 hours; laboratory, 3 hours; field trips) No prerequisite; BIOL 101 recommended.

## Upper Division

## BOTY 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.

## EOYY 312. Morphology of Vascular Plants (4)

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

## BOTY 370. Flowering Plants (4)

Structure, kinds, taxonomic relationships, and classification of local flowering plants with practice in their collection and identification. (Lecture, 2 hours; laboratory, $\sigma$ hours; field trips) Prerequisite: BOTY 103 or equivalent.

## Bory 410. Plant Anatomy (5)

Microscopic study of structure and development of plant tissues, with emphasis upon tissues of seed plants. (Lecture, 3 hours; laboratory, 6 hours) Prerequisites: BOTY 103 and 312, or equivalent.
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.

## BOTY 495. Selected Topics in Motany (Topics to be specified in Class Schedule) (2-4)

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 <br> Upper Division

## ENTO 300. Principles of Entomology <br> (5)

Classification, life history, structure, and basic physiology of insects. (Lecture, 3 hours; laboratory, 6 hours; field trips) Prerequisite: BIOL 101 or ZOOL 102, or equivalent.

## Biological Sciences

## ENTO 333. Medical 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, 2 hours; laboratory, 6 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.

## ENYO 422. Insect Physiology (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: ENTO 300 or consent of instructor.

## ENTO 495. Selocted Topics in Entomology (Topic to be specified in the Class Schedule) (2-4)

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.

## ZOOLOGY <br> Lower Division

## ZOOL 102. Principles of Zoology <br> (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) No prerequisite; BIOL 101 recommended.

## 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: BIOL 101 or ZOOL 102 or equivalent.
zOOL 313. Vertebrate 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. Comparativa Anatomy of Vertebrates 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.

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

Concinuation 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.
zOOL 323. Physiology (5)
Principles of functional anatomy and physiology of organ systems with special reference to human physiology. (Lecture, 3 hours; laboratory, 6 hours) Prerequisites: BIOL 101 or ZOOL 102 or equivalent; ZOOL 312 recommended.

## zOOL 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) Prerequisice: ZOOL 443 or consent of instructor.

## zOOL 453. Cellular Biology <br> (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 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: Two years 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: Two years of zoology or consent of instructor.

## ZOOL 464. Mammalogy

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

## zOOL 495. Selected Topics in Zoology (Topics to be specified in the Class Schedule) (2-4)

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>Robert W. Lambright, D.B.A., Professor<br>Kenneth G. Young, M.B.A., C.P.A., Professor

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 <br> 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 all 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

## Business Administration

currently available 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 REQUIREMENTS

Students seeking the Bachelor of Arts, Business Administration must:

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

## 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.

## DEGREE MAJOR IN EUSINESS ADMINISTRATION

Prerequisites to the Major
BUS 211. Principles of Accounting, 5 units
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 units, (or ECON 320. Quantitative Analysis, 4 units)
MATH 210. Finite Mathematics, 4 units
PSYC 201. Introduction to Psychology, 4 units
SPCH 200. Speech Communication, 4 units
Completion of General Education requirements in history and government.
The Business Administration Core
ECON 315. National Income Analysis, 4 units (effective 1970-71)
ECON 331. Managerial Economics, 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 318. Managerial Accounting and Information Systems, 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

## Business Administration

## 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, 4 units
One of the following as approved by the major advisor:
BUS 317. Legal Factors in Business, 4 units
BUS 412. Auditing, 4 units
BUS 414. Income Tax Accounting, 4 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 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 advisor:
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 332. Money and Banking, 4 units
BUS 421. Investments, 4 units
BUS 424. Financial Institutions, 4 units
BUS 414. Income Tax Accounting, 4 units

## Marketing

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

Professional careers in marketing are to be found in the marketing deparments of industrial firms, in merchandising firms, and in specialized marketing firms such as advertising agencies and marketing research agencies, etc.
Course requirements are as follows:
BUS 442. Marketing Research, 4 units
BUS 443. Sales Management, 4 units
One of the following as approved by the major advisor:
BUS 444. Industrial Marketing, 4 units
BUS 445. Retailing, 4 units
BUS 449. Problems in Marketing Strategy, 4 units

## DEGREE MINOR IN BUSINESS ADMINISTRATION

Prerequisites to the Minor
BUS 211. Principles of Accounting, 5 units
ECON 250, 251. Principles of Economics I-II, 8 units
Required Courses in Minor Field
ECON 331. Managerial Economics, 4 units
BUS 303. Business and its Environment, 4 units
BUS 313. Managerial Accounting, 5 units
BUS 318. Managerial Accounting and Information Systems, 4 units
BUS 322. Business Finance, 5 units
BUS 330. Administrative Organizations, 4 units
BUS 341. Basic Marketing, 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

## EUS 211. Principles of Accounting (5)

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

## BUS 303. Business and its Invironment (4)

Continuing interaction and adaptation of business and its legal, economic, political, and social environment. Prerequisites: ECON 251 and completion of General Education requirements in U.S. History and Government.

## Business Administration

## EUS 311. Intermediafe 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.

## BUS 312. Intermediate Accounting II (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. Prerequisite: BUS 311 or consent of instructor.

## EUS 313. Managerial Accounting (5)

Analysis and use of accounting and financial data by management for planning, control and decision making. Primarily designed for student who is pursuing a conconcentration in administration; 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, profit planning, direct costs, and pricing policies. (Formerly 316) Prerequisite: BUS 211.

## 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 318. Managerial Accounting and Information Systems (4)
Information economics; fundamentals of computer hardware and software. Emphasis on 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. Prerequisite: BUS 311 or BUS 313.

## EUS 322. Business Finance (5)

Analysis of investment opportunities, determination of funds requirements, sources and uses of funds, cost of capital, capital structure and funds managenent. Extensive use of case problems. Prerequisites: ECON 331; BUS 311 or BUS 313.

## 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. (Formerly 334.) Prerequisites: PSYC 201 and BUS 303.

## EUS 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 (4)

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, and PSYC 201.

## EUS 341. Basic Marketing (4)

Marketing process with emphasis on the management point of view. Consideration is given to 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 and PSYC 201.

## BUS 401. Readings in Business 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.

## BUS 408. Business Policy <br> (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 or concurrent enrollment in all other courses required for business major.

## BUS 411. Advanced Accounting (4)

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

## BUS 412. Auditing (4)

Standards and procedures broadly applied to examination of financial statements, including a consideration of field of public accounting, professional ethics, internal controls, preparation of working papers, and audit reports. Prerequisites: BUS 312 , and 314.

BUS 414. Income Tax Accounting (4)
History and philosophy of federal income tax law and regulations and procedures for determining income tax liability of individuals and business firms. Prerequisite: BUS 211.

## BUS 415. Seminar in Accounting Theory (4)

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

BUS 421. Investments (4)
Analysis of classes of securities and fundamental criteria involved in the construction and management of various types of securities portfolios. Prerequisite: BUS 322 or ECON 332.

## 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; enterrelationships of financial intermediation and business firms. (Formerly 324) Prerequisites: BUS 322 or ECON 332.

## EUS 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.

## Business Administration

EUS 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. Prerequisites: BUS 331 and 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. Prerequisites: BUS 331, MATH 210, and MATH 160 or ECON 320.

## EUS 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. Prerequisites: BUS 318, 330, and 433 or 434.

## 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. Prerequisites: BUS 341; ECON 320 or MATH 160.

## EUS 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

Analysis of the managerial activities in marketing of industrial goods. Coverage of market information, market planning, distribution methods, pricing strategies, and promotional problems in industrial marketing. Prerequisite: BUS 341 or consent of instructor.

## BUS 445. Retailing (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. Prerequisite: BUS 341 or consent of instructor.

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.

BUS 498. Individual Study (3-4)
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 department chairman.

# Chemistry 

Evan M. Thompson, Ph.D., Associate Professor, Coordinator<br>Hobart G. Hamilton, Ph.D., Assistant Professor<br>Glen O. Hultgren, 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 CHEMISTRY
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, 4 units
Required courses in supporting fields*:
PHYS 101. Mechanics and Heat, 5 units
PHYS 102. Electricity and Optics, 5 units
PHYS 103. Modern Physics, 5 units
MATH 119. Analytical Geometry and Matrices, 4 units MATH 120, 221. Calculus I-II, 8 units

The Major Units
CHEM 321, 322, 323. Organic Chemistry I-III 9




CHEM 464, 465. Physical Chemistry Laboratory I-II ..-_-_-_-_-_-_ 3

* Students planning to attend graduate school or work in industry should complete PHYS 221,222, and 223; MATH 222 and 223 and one year of German.


## Chemistry

## The Major-Continuod

At least two of the following courses as approved by major adviser:
CHEM 427. Advanced Organic Chemistry
CHEM 467. Advanced Physical Chemistry
CHEM 480. Introduction to Biochemistry
CHEM 495. Selected Topics in Chemistry
CHEM 498. Individual Study
PHYS 372. Modern Physics

Total
41-43

## DEGREF 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 clementary 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 postgraduate 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 101. Principles of Chemistry I (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 II (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 I (4)

Principles and practice of chemical analysis. (Lecture, 2 hours; laboratory, 6 hours) (Formerly 300) Prerequisite: CHEM 103.

## Upper Division

CHEM 321. Organic Chemistry 1-Lecfure (3)
Principles, basic techniques, and syntheses. Aliphatic and aromatic compounds. (Lecture, 3 hours) Concurrent enrollment in CHEM 324 required. (Formerly 327) Prerequisite: CHEM 103.

CHEM 322. Organic Chemistry II-Lecture (3)
Continuation of CHEM 321. (Lecture, 3 hours) Concurrent enrollment in CHEM 325 required. (Formerly 328) Prerequisite: CHEM 321.

## Chemistry

## CHEM 323. Organic Chemistry III-Lecture (3)

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) (Formerly 327) Prerequisite: CHEM 103.

CHEM 325. Organic Chemistry II-Laboraitory (1-2)
Continuation of CHEM 324. (Laboratory, 3 or 6 hours) Concurrent enrollment in CHEM 322 required. (Formerly 328) Prerequisite: CHEM 324.

## CHEM 326. Organic Chemisfry III-Laboratory (1-2)

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

## CHEM 401. Advanced Inorganic Chemistry

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) (Formerly 301) Prerequisite: CHEM 211 and 461, or consent of instructor.

CHEM 427. Advanced Organic Chemistry
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 and PHYS 103.

CHEM 462. Physical Chemistry II (3)
Continuation of CHEM 461. (Lecture, 3 hours) Prerequisite: CHEM 461.
CHEM 463. Physical Chemistry III (3)
Continuation 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 Biochemistry (4)
Chemical composition of cells, metabolism, enzymology. (Lecture, 4 hours) Prerequisite: CHEM 323 or consent of instructor.

## Chemistry

## CHEM 495. Selected Topics in Chemistry (Topic to be specified in the Class Schedule) (2-5)

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

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

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.

## Graduate

CHEM 598. Individual Study (3-5)
For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

# Communication Arts and Sciences 

Randall C. Ruechelle, Ph.D., Professor, Chairman<br>Max C. Norton, Ph.D., Professor<br>James H. Platt, Ph.D., Associate Professor<br>Richard S. Lucas, M.A., Assistant Professor<br>Bruce D. Hood, M.A., Assistant Professor<br>Susan E. Kellogg, M.S., Assistant Professor<br>Jere D. Wade, M.A., Assistant Professor

The Department of Communication Arts and Sciences offers the Bachelor of Arts and Master of Arts, Speech. In addition, it provides a curriculum designed to develop a substantial background in theory and function of oral communication and the art of oral expression to serve the following academic and professional needs:

1. To provide the general student in liberal arts with an opportunity to increase his understanding of the theories and processes of oral communication and of the skills in the art of oral expression.
2. To provide opportunities through both speech and drama 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 SPEECH

Prerequisites to the Major
SPCH 200. Speech Communication, 4 units
One of the following as approved by the major adviser:
SPCH 210. Discussion, 4 units
SPCH 240. Oral Interpretation, 4 units
The Major Units

SPCH 300. Phonetics



SPCH 400. Communication Theory _-_ 4

## Speech-Drama

The Major-Continued Units
SPCH 410. Group Communication ..... 4Upper division courses in speech as approved by majoradviser; DRAM 421, DRAM 440, and SPAN 468may be applied16
Total ..... 40

## DEGREE 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. 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 science.

## TEACHING CREDENTIALS

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 postgraduate work and receive approval of speech as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

Restricted Credential Authorizing Service as Speech and Hearing Specialist (administered by the Department of Communication Arts and Sciences.)
Students planning careers as Speech and Hearing Specialists should consult with the credential adviser in the Department of Communication Arts and Sciences regarding program requirements for the Restricted Credential, Specialization in Speech and Hearing Handicapped, California State Deparment of Education.

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
$O R$
(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 313, 432, and 435, EDUC 412, 482, 632, and 676.

## MASTER OF ARTS IN 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 463. Audiology
Psychology 435. Abnormal Psychology
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 çollege 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 deparment.

## Speech-Drama

## 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. 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.

## DEGREE MINOR IN DRAMA

Twenty-six units approved by the minor adviser are required, including at least 16 units in upper division courses. Courses to be selected from DRAM 220, 230, $300,310,340,421,440 ;$ SPCH 240, 340, 341.

## COURSE DESCRIPTIONS

DRAMA
Lower Division
DRAM 200. Expression for the Performing Artist (4)
Principles and practice of stage speech, movement and non-verbal communication for the actor, singer and performer.

DRAM 220. Introduction to Theatre (4)
Comprehensive view of theatrical art; the theater as a cultural force; fundamentals of dramaturgy and theatrical production.

DRAM 230. Theatre Workshop I (2)
Practice in all phases and forms of theatrical production for public performance. May be repeated for a total of 6 units. (Formerly 320)

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.

DRAM 303. Stage Lighting (4)
Theory and practice of theatrical stage lighting; plotting, service and operation of contemporary devices. Prerequisite: Consent of instructor.

## DRAM 310. Stagecraft (4)

Principles and practice in the techniques of building, painting, and mounting stage scenery and properties.

## DRAM 3I1. Scene Design (4)

Practice in the techniques of conception and creation of effective theatrical scenery. Recommended prerequisite: Beginning drawing or two-dimensional design. Prerequisite: Consent of instructor.

## DRAM 322. Creative Drama for Children (3)

Methods of developing original dramatizations with children; creating plays from children's literature. Introduction to the basic principles of socio-drama. Two lectures and one demonstration workshop weekly. Prerequisite: Consent of instructor.

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

DRAM 421. History of Theatre, 500 B.C.- 1650 A.D. (4)
Historical analysis of dramatic and thearrical activity from ancient Greece to Elizabethan England.

DRAM 422. History of Theatre, 1650 A.D. to Present Day (4)
Historical analysis of dramatic and theatrical activity from restoration England to the American present day.

DRAM 430. Theatre Workshop II (2)
Participation in student directed experimental production of dramatic scripts. May be repeated for a total of 4 units.

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

DRAM 498. Individual Study (3-4)
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.

## SPEECH

Lower Division

## SPCH 200. Speech Communication (4)

Fundamentals of public speaking with emphasis on the nature of logical discourse. Functions and practices of oral communication applied to preparation and presentation of speeches.

SPCH 210. Diseussion (4)
Organization and conduct of group discussion. Designed to give the student an understanding of the processes of group problem solving and decision making.
SPCH 240. Oral Interpretation (4)
Fundamentals of theory; techniques and practices in communicating from the printed page.

## 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.

## Speech-Drama

## SPCH 305. General Semanties (4)

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 310. Forensics (1-3)
Planning and participation under faculty supervision in college-wide sponsored speech and forensics activities. May be repeated for a total of 6 quarter units. Prerequisite: Consent of instructor.

## SPCH 311. Argumentation and Debate (4)

Study of forms and uses of oral argument applicable to forensic speaking. Classroom practice in applying argumentation in comperitive debate. Prerequisite: Consent of instructor.

## 5PCH 312. Speech Composition (4)

Advanced study of fundamentals of oral communication as applied to public address. Factors determining audience reaction, methods of thought development and organization in establishing a basis for understanding problems inherent in communicating with audiences of various kinds. Prerequisite: SPCH 200 is recommended.

## SPCH 340. Oral Interpretation 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 Interprefation of Literature (4)

Application of principles of oral communication as they pertain to interpretation of poetry, prose, descriptive and dramatic literature. Prerequisite: Consent of instructor; SPCH 240 is recommended.

## 5PCH 360. Language Behavior and 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. (Formerly 465)

## SPCH 361. Infroduction to Communication Disorders

(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 foundamental acoustics of speech. Physiology and psychology of the speaking act. Prerequisite: SPCH 300 or consent of instructor.

## SPCH 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 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 (4)

Principles and practice of group discussion, conference development and leadership as tools in a democracy. Procedures for effecting problem solving through group interaction in education, industry and community affairs. Prerequisite: SPCH 210 or equivalent.

## SPCH 412. Theory of Persuasion (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 Communication Disorders (4)
Principles and procedures in diagnosis of communication disorders. Case history taking, administration of diagnostic tests, interviews, reporting, and parent-teacher counseling. Prerequisites: SPCH 360, 361, or equivalents.

## SPCH 461. Communication Disorders I (Language) (3)

Symposia on disorders related to the symbolizing processes. Relationship to the language and speech problems of the multiply handicapped child. Prerequisite: SPCH 361 on consent of instructor.

## SPCH 462. Communication Disorders II (Speech) (3)

Symposia on speech 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. Prerequisite: SPCH 361 or consent of instructor.

## SPCH 463. Audiology (4)

Anatomy and pathologies of hearing mechanism. Acoustics and puretone testing techniques; 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. Prerequisite: SPCH 300 or consent of instructor.

## Speech-Drama

## 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. Prerequisite: SPCH 464 recommended.

## SPCH 467. Structural Linguistics and Phonology (4)

Phonemic, morphemic and syntactic linguistic structures. Comparative study of the phonemic structures of principal English, Romanic and Germanic dialects. Prerequisite: SPCH 300 or SPAN 468 or consent of instructor.

SPCH 470. Clinical Practice in Speech 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 in 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.

SPCH 496. Senior Colloquium in Speech and Communication Science (4)
Synthesis of philosophies of oral communication represented by analyses of research. Prerequisite: Consent of instrutcor.

SPCH 498. Individual Study (3-4)
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 incoding 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. Prerequisite: SPCH 361 or consent of instructor.

## SPCH 561. Seminar: Stuttering (4)

Theories and research in stuttering and neurological disorders. Guided observations, class discussions and evaluations. Prerequisite: SPCH 361 or consent of instructor.

## SPCH 562. Seminar: Cleft Palate Speech (4)

Etiology, surgical and therapeutic procedures, parental counseling. Guided observation, discussion and evaluation. Prerequisite: SPCH 361 or consent of instructor.

## 5PCH 563. Seminar: Developmental Communication Disorders <br> (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. Prerequisites: SPCH 461 or 462 or 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. Students are required to register concurrently for SPCH 571 for one unit. Prerequisite: SPCH 463 or consent of instructor.

## 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. Prerequisite: SPCH 361 or consent of instructor.

## SPCH 570. Advanced Clinical Practice: Speech Correction (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 a total of 9 units. (Formerly 661) Prerequisite: Admission to clinical program.

## SPCH 597. Research Methods 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.

SPCH 598. Individual Study (3-5)
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 641. Practicum in Communication Disorders in the Public Schools (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.

## SPCH 642. Clinical Practice in Communication Disorders in Public Schools (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.

## Economics

Frederick E. Kottke, Ph.D., Professor, Coordinator<br>Klaus H. Kalb, Ph.D., Associate Professor<br>William C. 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) the economics major will enable the department to enhance its course offerings for the prospective business administrative major, vocational objectives in government and industry.

The College also offers the degree Bachelor of Arts, Social Sciences. The student seeking this degree may select their interdepartmental major in economics and any other discipline 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 ECONOMICS

## 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

## DEGREE MINOR IN ECONOMICS

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

## 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 postgraduate 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 III (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: Course in 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: Course in 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: Course in economic principles or consent of instructor.

## ECON 401. Economic Thought I (4)

Important ideas of major schools of economics and economists from 1500-1900; Mercantilism through Neoclassical economics.

## ECON 402. Economic Thought II (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: Course in economic principles or consent of instructor.

## Economics

## MONEY AND BANKING

## ECON 332. Money and Banking! (4)

Relationship of money and credit to production and exchange; monetary policies for full employment and economic stability. Prerequisite: Course in economic principles or consent of instructor.

## ECON 333. Money and Banking il (4)

Development of banking; the Federal Reserve System; bank supervision and regulation; noncommercial financial institutions; international banking mechanisms.

## PUBLIC FINANCE AND FISCAL POLICY

## ECON 454. Public Finance and Fiscal Policy (4)

Principles, problems, and policies of public expenditure, credit, debt, budgeting, and fiscal policy.

## ECON 455. Taxation and the American Economy (4)

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.

## ECON 456. State and Local Finance and Its Administration (4)

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)

Development of labor movement in United States; wages and wage theory; productivity measurement; unemployment and price stability.

## ECON 411. Collective Bargaining (4)

Laws and regulations effecting labor relations; conciliation, mediation, and arbitration procedures and responsibilities.

## INTERNATIONAL ECONOMCS

## ECON 405. Comparative Economic Systems (4)

Capitalism and alternative economic systems; differences and comparative performance. Prerequisite: Course in 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: Course in economic principles or consent of instructor.

## ECON 441. International Trade (4)

Concepts of international exchange; exchange rates, balance of payments, free versus regulated trade, and international investment. Prerequisite: Course in economic principles or consent of instructor.

## ECON 442. Soviet Economics (4)

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

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: Course in 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 310. Economic History of Western Civilization (4)
Analysis of economic development of United States and Europe; economic theories of growth as applied to Western Culture. May be counted for credit in history major and minor.

## ECON 320. Quantitative 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: Course in economic principles 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 493. Individual Study (3-4)

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

## Education

James C. Cole, Ed.D., Professor, Chairman Charles R. Farrar, Ed.D., Professor<br>Haig A. Rushdoony, Ed.D., Professor<br>Richard V. Jones, Ed.D., Associate Professor<br>Priscilla R. Smith, Ed.D., Associate Professor<br>Lorna M. Swain, Ed.D., Associate Professor<br>Edward R. Credell, Ph.D., Associate Professor<br>David Glenday, Ed.D., Associate Professor<br>R. J. Moriconi, Ed.D., Assistant Professor<br>Jack A. Graves, Ed.D., Assistant Professor<br>Lloyd R. Thompson, Ed.D., Assistant Professor

The College, in addition to curricula in the liberal arts, offers professional programs in the Department of Education 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 in the Credentials Office. Graduate programs leading toward a Master of Arts in Education with concentrations in elementary or secondary curriculum or supervision 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 Communication Arts and Sciences 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. Prior to undertaking course work in professional education leading to a credential, it is assumed that the student will have acquired a broad base of liberal arts academic preparation, including a major and 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 fulfillment of certification regulations.*

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

[^11]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. After advisement, he will be scheduled for one of the following credential programs.

## THE ELEMENTARY CREDENTIAL PROGRAM

Coordinator: Haig A. Rushdoony<br>(Advisers: Credell, Graves, Rushdoony, Smith, Thompson)

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 Credential 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 in Credentials Office.
6. Completion of application form by deadline due date.

## APPLICATION SCHEDULE FOR STUDENT TEACHING AND INTERNSHIP

Application must be on file in the College Credentials Office in accordance with the following schedule:

1. For student teaching beginning in:
a. Fall Quarter $\qquad$ May 1 (those in attendance during spring quarter)
July 1 (new summer session SSC enrollees)
b. Winter Quarter

November 1
c. Spring Quarter. February 1
2. For internship teaching beginning in:
a. Fall Quarter
b. Winter and Spring Quarters.

February 1
No internships begin

## Education

## TYPES OF ELEMENTARY CREDENTIAL PROGRAMS

A candidate for the elementary teaching credential may 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 Speciaiization in Elementary Teaching, issued for life. In the parcial, four-year program, Plan II, eligible students may complete student teaching as undergraduates, fulfilling fifth year requirements for the Standard Credential while teaching. In the Internship Program in elementary teaching, Plan III, eligible students may enter the internship program which includes full-time teaching while receiving college credit under college supervision during the post-baccalaureate 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 Pattern

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: $\ddagger$ (Note: All units referred to are quarter units.)

## Single Subject

Anthropology
Biological Sciences
Chemistry
Economics
English
Fine Art

History
Mathematics
Music
Physical Education
Physics
Political Science
Psychology

Sociology
Spanish
Speech
Interdepartmental
Physical Sciences
Social Sciences
3. General education requirements as specified in the California Administrative Code, Title 5, Chapter I. California credential regulations require $671 / 2$ quarter units of General Education, including 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. Fine Arts (music, art, and drama)
f. Foreign Languages

The humanities must include either four quarters of English course work including a course in English composition or three quarters of English course work, and in addition, the passing of a special examination in English composition. The requirements on the provisions and principles of the United States Constitution must be completed for the issuance of this credential. This re-

[^12]quirement 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.
4. MATH 100 or 600 .
5. EDUC 411-Social Foundations of Education, and EDUC 412—Psychological Foundations of Education.
6. EDUC 425 and by advisement at least three of the following: EDUC 426 , 427, 428, and 429.
7. Student Teaching: EDUC 441, 442, 443.
8. Other courses by advisement.
9. 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 Credentials Admissions Committee for the Standard Teaching Credential with a Specialization in Elementary Teaching.

## II. 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 or 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.

[^13]
## Education

## 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 from the school district and the college.

## REQUIREMENTS AND PROCEDURES FOR THE 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) 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)
b. Maintenance of a minimum grade point average of 2.7 .
c. Recommendation for Classified Status by College Internship Screening Committee.
d. Admission to Classified Status by Credentials Admissions Committee.

Upon satisfactory 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 in California Administrative Code, Title 5, Chapter 2.
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, or 428.
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:
a. A minimum of fourteen (14) 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

Coordinator: Richard V. Jones, Jr.
(Advisers: Farrar, Glenday Jones, Moriconi, Swain)
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 the teaching major, minor, and professional education courses.
4. Satisfactory completion of at least one approved course at this college in the Education Department.

## APPLICATION SCHEDULE FOR STUDENT TEACHING AND INTERNSHIP

Application must be completed in the College Credentials Office in accordance with the following schedule:

1. For student teaching beginning in:
a. Fall Quarter $\qquad$ May 1 (those in attendance during spring quarter)
b. Winter Quarter $\qquad$
c. Spring Quarter
2. For internship teaching beginning in:
a. Fall Quarter

February 1
b. Winter and Spring Quarters No internships begun

## TYPES OF SECONDARY CREDENTIAL PROGRAMS

A candidate for the Secondary Teaching Credential may pursue one of the following: Plan I-the regular five-year pattern; or Plan II-the Internship Program.s

## I. The Regular Five-Year Pattern

Candidates admitted to the Secondary Program are to complete successfully: 1

1. Baccalaureate degree from an accredited institution.
2. General Education requirements as specified in the California Administrative Code, Title 5, Chapter I. California credential regulations require $671 / 2$ 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 English composition or three quarters of English course work, and in addition, the passing of a special examination in English 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 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 post-baccalaureate work in courses in the major as recommended by the major adviser and approved by the credential adviser. $\ddagger$

## Single Subject

Anthropology *
Biological Sciences
Chemistry
Economics *
English
Fine Art
History

Mathematics
Music
Physical Education
Physics
Political Science
Psychology *
Sociology *

Spanish
Speech

## Interdepartmental

Physical Sciences
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 have completed a minor of sufficient scope as to equip the student with a second teaching field.
§The Standard Teaching Credential with a Specialization in Secondary Teaching is also issued on the basis of a partial fullillment of requirements. Information may be obtained from the College Credentials Office.

* As these majors and minors are not commonly taught in the secondary schools, students should consult with the Secondary Coordinator for employment potential.
$\dagger$ These requirements are deemed minimal; an adviser may require additional academic or professional work of a candidate as individual needs require.
$\$$ For graduate students from other accredited institutions, the Califormia State Board of Education accepts additional majors; students holding other degree majors should contact the Credentials Office prior to application to program.

Anthropology *
Biology
Chemistry
Drama
Economics*
English
Fine Art
French
History

Mathematics
Music
Philosophy*
Physics
Pólitical Science
Psychology*
Sociology *
Spanish
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 re-arranged in consultation with a credential adviser.
Foundations (Normally taken in the last two quarters prior to student teaching)
EDUC 411. Social Foundations of Education (4)
EDUC 412. Psychological Foundations of Education (4)

## Curriculum and Instruction

First Quarter

> EDUC 448. Introduction to Secondary Education (6)
> EDUC 671. Student Teaching in Secondary Schools I Electives $\dagger$

Second Quarter
EDUC 449. Curriculum Planning in Secondary Schools (4)
EDUC 672. Student Teaching in Secondary Schools II (4) Electives $\dagger$
Third Quarter
EDUC 673 . Student 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 577. Counseling and Guidance (3)
EDUC 676. Exceptional Children and Youth (4)
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.

## 11. 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

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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.
b. Completion of General Education, English, and Constitution requirements as noted for the Regular Five-Year Pattern.
c. GPA minimum of 2.7 in teaching major, 2.5 in teaching minor, and 2.5 overall in upper division work.
d. Completion of screening procedures, including:
(1) Application forms
(2) Interviews and testing
e. Acceptance into program by Internship Screening Committee and the Credentials Admissions Committee.
f. Completion of EDUC 471 (Student Teaching in Secondary Schools I) during the spring quarter prior to the internship year.
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 primarily to meet the professional growth needs of experienced 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 involves a block of common studies, the Foundations Core, for all students and minimum studies in an area of emphasis to provide for special needs and interests.

## Education

## Foundations Core:

EDUC 501. Advanced Studies in Sociology of Education (3)
EDUC 502. Seminar: History of Education (3)
EDUC 503. Seminar: Comparative Education (3)
EDUC 504. Seminar: Philosophies of Education (3)
EDUC 505. Seminar: Methods of Research in Education (3)
EDUC 506. Seminar: Applied Theories of Learning (3)
EDUC 599. Thesis or Project (3)
Two of the following common studies:
EDUC 575. Seminar: Tests, Measurement and Evaluation (3)
EDUC 577. Seminar: Counseling and Guidance (3)
EDUC 587. Seminar: New Developments in Education (3)
Area of Specialization-Elementary Curriculum
EDUC 521. Seminar in Elementary Education (3)
One of the following areas of emphasis:
EDUC 525. Seminar in Reading Curriculum, K-6 (3)
EDUC 526. Seminar in Social Studies Curriculum, K-6 (3)
EDUC 527. Seminar in Language Arts Curriculum, K-6 (3)
EDUC 528. Seminar in Mathematics Curriculum, K-6 (3)
EDUC 529. Seminar in Science Curriculum, K-6 (3)
Approved professional or upper division/graduate level academic subject field courses selected to provide depth and background for thesis or project topic.

## Area of Specializafion-Secondary Curriculum

EDUC 548. Seminar in Secondary Education (3)
One of the following areas of emphasis:
EDUC 541. Seminar in Social Stadies Curriculum, 7-12 (3)
EDUC 542. Seminar in English Language Arts Curriculum, 7-12 (3)
EDUC 543. Seminar in Mathematics Curriculum, 7-12, (3)
EDUC 544. Seminar in Science Curriculum, 7-12 (3)
An approved graduate level curriculum course, e.g. EDUC 564.
Approved upper division or graduate level academic subject field courses selected to provide depth for teaching fields.

Area of Specimlization-Supervision and Curriculum
One of the following:
Reading and Language Arts Curriculum (525,527,542)
Social Studies Curriculum (526, 541)
Science and Mathematics Curriculum (528,529,543,544)
One of the following:
EDUC 561. School Organization and Administration (3)
EDUC 562. School Supervision (3)
EDUC 563. Educational Leadership (3)
EDUC 564. Curriculum Planning and Development (3)
Approved professional or upper division/graduate level academic subject field courses selected to provide depth and background for Thesis or Project topic.

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Programming worksheets outlining required and elective course work for each specialization may be obtained at the Department of Education Office.

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 needs to be filed with the College Department of Education before the student seeks programming advisement.

## COURSE DESCRIPTIONS

## Lower Division

## EDUC 100. Participation in Individual Instruction (2)

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.

## EDUC 200. Introduction to Education (2)

An overview of the field of education and the responsibilities of teaching. Designed for students contemplating entrance into the field of teaching at the elementary, secondary, or college level, and for others who desire a general overview of education in the U.S. Recommended, but not required in the credential program. Prerequisite: Medical clearance must be obtained prior to public school observation.

## FOUNDATIONS

## Upper Division

## EDUC 4II. 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)
Introduction to teaching in the modern elementary school. Directed observation is included. Prerequisites: EDUC 411 and 412.

## EDUC 425. Reading in Elementary Schools (4)

Teaching reading in grades $\mathrm{K}-9$; concepts and applications of reading skills 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 (4)

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. Mathematies in Elementary Schools
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 $\mathrm{K}-9$; 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 (4)
Purposes, materials, activities, and techniques applicable in elementary school health and physical education. Prerequisites: EDUC 411 and 412.

## 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 and correlation of reading with total curriculum of elementary schools, K-9. Prerequisites: EDUC 425, 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 Flanning in Secondary Sehools (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.

## EDUC 498. Individual Study (3-5)

For qualified undergraduate students in need of specialized stady 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. A minimum of 20 clock hours of actual classroom teaching- 30 hours for those enrolled for 6 units. Includes a weekly two-hour on-campus meet-

## Education

ing dealing with legally required instruction in elementary schools, the structure of public education, and student teaching problems. $\mathbf{P}$ or $\mathbf{F}$ grade is given. Prerequisites: Completion of or concurrent enrollment in two curriculum courses. (Petition required for 6 units enrollment.)

EDUC 442. Student Temching in Elementary Schools II (4)
Supervised observation-participation and student teaching in public elementary school settings. A minimum of 30 clock hours of actual classroom teaching. Includes a weekly two hour on-campus meeting dealing with professional ethics and activities, use of audio-visual, and student teaching problems. P or F grade is given. (Formerly 440) Prerequisite: EDUC 441, and four curriculum courses (one or two concurrently).

EDUC 443. Student Teaching in Elementary Schools III (10 or 12)
Supervised observation-participation and student teaching in public elementary school settings to complete cumulative minimum 180 clock hours of actual classroom teaching. Full-day assignments. Includes a weekly two-hour seminar dealing with teaching topics and problems. P or F grade is given. Prerequisite: EDUC 442 and/or approval of coordinator. (Petition required for 12 units enrollment.)
EDUC 444. Student Teaching in Outdoor Education: Elementary (2-3)
Student teaching sixth graders out-of-doors for six days; accompanying introductory practicum in principles of outdoor education. If written project is approved, the enrollment is for three units. P or F grade is given. Prerequisite: EDUC 442.

EDUC 471. Student Teaching in Secondary Schools I (4)
Supervised observation-participation and student teaching in public secondary school settings. A minimum of 20 clock hours of actual classroom teaching. Includes a two-hour on-campus class each week dealing with methodology, materials of instruction, and problems encountered in student teaching experience. Prerequisites: EDUC 411, 412, concurrent enrollment in EDUC 448, and consent of credential adviser.

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EDUC 671. Student Teaching in Secondary Schools I (4)
Supervised observation-participation and student teaching in public secondary school settings. A minimum of 20 clock hours of actual classroom teaching. Includes a two-hour on-campus class each week dealing with methodology, materials of instruction, and problems encountered in student teaching experience. P or F grade is given. Prerequisites: EDUC 411 and 412, concurrent enrollment in EDUC 448, 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. A minimum of 40 clock hours of actual classroom teaching. Includes a two-hour on-campus class each week dealing with methodology, instructional materials, and problems encountered during the student teaching experience. P or F grade is given. Prerequisites. EDUC 671, and completion of or concurrent enrollment in EDUC 449.

## EDUC 673. Student Teaching in Secondary Schools III ( 6 )

Supervised observation-participation in student teaching in public secondary school settings. A minimum of 60 clock hours of actual classroom teaching in major and minor fields. Includes a weekly two hour on-campus seminar dealing with teaching topics and problems. P or F grade is given. Prerequisite: EDUC 672.

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## EDUC 678. Seminar: Teaching in the Modern Secondary School

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.

## SUPERVISION, COUNSELING, SPECIAL STUDIES, AND SEAINARS

## EDUC 477. Counseling Theory (4)

Consideration of the major theories of counseling. Demonstrations, and reviews of current literature. (Formerly EDUC 482) Same as PSYC 477. Prerequisite: PSYC 321 or 432 ; consent of instructor.

## 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, speical grouping arrangements, enrichment reading, and latest developments in the reading field. Prerequisite: EDUC 435 or equivalent.

EDUC 632. 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 SOCL 525) Prerequisite: EDUC 479, SOCL 313, or consent of instructor.

## EDUC 633. 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 SOCL 528) Prerequisite: Consent of instructor.

EDUC 635. Pupil Personnel Services Seminar (3)
Current practices in pupil personnel services. Organization and administration of pupil personnel services. Open to practicing personnel. Prerequisite: Consent of instructor.

EDUC 676. Exceptional Children and Youth (4)
Physical, intellectual, social, and emotional deviations among children and youth; community resources; educational adjustments. (Formerly 485) Prerequisite: Consent of instructor.

## EDUC 680. 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 480) Prerequisite: Consent of instructor.

## EDUC 681. Educational and Occupational 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 SOCL 427 and EDUC 481) Prerequisite: Consent of instructor.

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EDUC 683. School Supervision and Administration Seminar
Case study analysis of practical problems in school administration and supervision. Open to practicing principals, supervisors, and consultants.

## 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.

## 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: School Supervision and Administration (3-6)
Actual work experience in school supervision; completion of projects related to the credential the student is seeking. Concurrent enrollment in EDUC 683 required. Prerequisite: Consent of credential adviser.

## EDUC 698. Individual Study (3-5)

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

## INTERNSHIP PROGRAMS

## Professional Postgraduate

## EDUC 611. Internship Teaching in the Secondary Sehool 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 if (4)
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 Sehool III (4)
Internship teaching in public secondary school under joint district-college supervision. Prerequisites: EDUC 612 and concurrent enrollment ${ }^{-1}$ EDUC 616.

## EDUC 614. Secondary Internship Seminar I (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 II (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 Séminar 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 (4-6)

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 (4-6)

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 (4-6)
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 651. Internship Seminar 1-Elementary

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

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 concurrent enrollment in EDUC 642.

EDUC 653. Internship Seminar 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 (3)

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 <br> (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.

## EDUC 503. Seminar: Comparative Education

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.

## Education

## 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. Saminar: 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

Analysis and evaluation of reading curriculum, $\mathrm{K}-6$, 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 (3)
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 Mathematies Curriculum, K-6 (3)
Analysis and evaluation of mathematics curriculum in elementary schools, K-6. 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 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.

## Education

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. (Formerly EDUC 661)

## EDUC 562. School Supervision (3)

Techniques and practices used in school supervision; selection, placement and evaluation of school personnel; analysis of personnel administration. Prerequisite: EDUC 561 (Formerly EDUC 648)

## 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 Development

Analysis of models in curriculum development; systematic planning for curriculum improvement; behavioral objectives. (Formerly EDUC 645) 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.

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.

## Education

## EDUC 578. Advanced Counseling <br> (4)

Counseling practices including commonly-used methods of psychotherapy. Practice in techniques of counseling. See PSYC 578. (Formerly 631) Prerequisite: EDUC 477.

## EDUC 587. Seminar in New 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) Prerequisite: Consent of instructor.

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

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.

## English

James P. Jensen, Ph.D., Associate Professor, Chairman<br>*Lawrence D. Berkoben, Ph.D., Associate Professor<br>Douglas H. Taylor, Ph.D., Associate Professor<br>Richard D. Bretz, M.A., Assistant Professor<br>Leonard Brill, Ph.D., Assistant Professor<br>Arnold L. Goldman, M.A., Assistant Professor<br>Laurence H. Jacobs, M.A., Assistant Professor<br>Lola V. Johnson, M.A., Assistant Professor<br>Jean H. Riddle, M.A., Assistant Professor<br>Jack W. Williams, M.A., Assistant Professor

The Department of English offers the degree, Bachelor 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.

## DEGREE MAJOR IN ENGLISH

## Prerequisites to the Major

ENGL 100, 200. Freshman Composition and Sophomore Composition, 8 units
ENGL 201, 202. Introduction to Literature I-II, 8 units
Note: Reading knowledge of an appropriate foreign language is required. To satisfy this requirement two years of college level foreign language study or equivalent or satisfactory performance in a language examination, as determined by the Department of English, may be acceptable. Transfer students who earn junior or higher standing at Stanislaus State College by spring 1970 are exempt from this requirement.

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## English

The Majior Units
ENGL 300. Junior Composition ..... 4
Two courses from the following sequence: ENGL 311, 312, 313. English Literature I-II-III ..... 8
Two courses in any one of the following sequences, provided it covers the lit-erary period omitted from the $311,312,313$ 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-IIIENGL 335, 336, 337. Literature of the Victorian Period I-II-III8
One course in one of the following sequences as approved by major adviser: ENGL 416, 417. Milton I-II ENGL 405, 406. Chaucer I-II ..... 4
Two courses in the following sequence as approved by major adviser: ENGL 421, 422, 423. Shakespeare I-II-III ..... 8
Courses in English as approved by major adviser ..... 16

## DEGRE MINOR IN ENGLISH

(28 units, to include at least 16 upper division units)

## Lower 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. English Literature I-III
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. ENGL 361 Advanced Composition-Usage is recommended as an elective.
2. Secondary credential candidates must complete 9 units in courses in English as postgraduate work and receive approval of English Department as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## 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 General 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.
4. A reading knowledge of an appropriate foreign language after spring 1971.
Requirements for the Degree ..... UnitsI. Completion of at least 45 units to include the following:A. English 500. Seminar: Graduate Studies in English5
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:
5. Thesis ..... (5)
6. Upper division courses in English selected in consultation with the student's graduate adviser. ..... (10)
Total ..... 10 ..... 45D. Comprehensive examination:Candidates must pass a written comprehensive examination coveringtheir choice of three of seven subject-areas.
E. Maintenance of continuous registration except for summer sessions.F. Reading knowledge of an appropriate foreign language as determinedby the Department of English.

## Requirements for the Thesis Program:

1. A minimum of 40 units of approved gradaate 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 Nom-Thesis Program:

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.
3. A four-hour written comprehensive examination, the time to be divided equally among the candidate's chosen subject-areas.
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## English

## 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 215. Perspectives in Literature (4)

Readings in various literary masterworks with emphasis upon their contemporary relevance. (Satisfies G. E. requirement for non-majors.)

## Upper Division

## ENGL 300. Junior Composition (4)

Advanced writing on a literary topic emphasizing rhetorical analysis and research methods. Prerequisites: ENGL 200 or its equivalent and junior standing.

## ENGL 303. The Modern Short Story (4) SS

Reading and analysis of modern short stories.

## ENGL 311. English Literature I (4)

Beginnings to 1600: Beowulf, Chaucer, Spenser, et. al. Prerequisite: ENGL 201 or equivalent.

## ENGL. 312. English Literature II (4)

1600 to 1800: Shakespeare, Milton, Dryden, Johnson, et al. Prerequisite: ENGL 201 or equivalent.

## ENGL 313. English Literature III (4)

1800 to the present: Wordsworth, Tennyson, Arnold, Yeats, et al. Prerequisite: ENGL 201 or equivalent.

## ENGL 315. Eighteenth Century Literature I (4)

Literature of the Restoration: emphasis on Restoration drama, Dryden, Pope, and Swift. Prerequisite: ENGL 201 or equivalent.

## ENGL 316. Eighteenth Century Literature II (4)

Literature of the mid and late eighteenth century; emphasis on Johnson, Boswell, Goldsmith, et al. Prerequisite: ENGL 201 or equivalent.

## ENGK 321. English Novel I

Defoe, Richardson, Fielding, Sterne, and Austen.

## ENGL 322. English Novel II (4)

Dickens, Thackeray, George Eliot, Hardy, and Conrad.
ENGL 331. Literature of the Romantic Period I (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 333. Literature of the Romantic Period III (4)

Romantic essayists and novelists. Prerequisite: ENGL 201 or equivalent.
ENGL 335. Literature of the Victorian 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 337. Literature of the Victorian Period III (4)

Pater, Wilde, the Aesthetes, Housman, et al. Prerequisite: ENGL 201 or equivalent.

ENGL 344. Early Nineteenth 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 370. Minority Literature (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.

## English

## ENGL. 410. Renaissance Literature (4)

Sidney, Spenser, Wyatt, and Surrey. Prerequisite: ENGL 201 or equivalent.

## ENGL 413. Seventeenth Century Literaturel (4)

Donne, Jonson, Webster, and Herbert. (Formerly 435) Prerequisite: ENGL 201 or equivalent.

## ENGL 414. Seventeenth Century 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.

EṆGL 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 (4)

Tragedies and romances. (Formerly 422) Prerequisite: ENGL 421 or consent of instructor.

## ENGL 439. Modern Eritish Literuture I (4)

1900 to 1930; Yeats, Joyce, Lawrence, Forster, et al. (Formerly 324)

## ENGL 440. Modern Eritish Literature II (4)

Since 1930; Huxley, Green, Greene, Waugh, et al.
ENGL 442. Twentieth Century Ameritan Literature (Authors to be specified in Class Schedule) (4)
Intensified study of selected American authors of the period.

## ENGL 444. American Novel I <br> (4)

Hawthorne, Melville, Twain, James. (Formerly 341)

## ENGL 445. American Novel II

Fitzgerald, 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 450. Literary Interpretation (4)

Approaches and methods in the study of literature. Prerequisite: ENGL 201 or equivalent.

## English

ENGL 481. Modern European Literafure (4)<br>Gide, Mann, Kafka, Sartre, Camus.

ENGL 482. Types of Dramatic Literature (4)
Dramatic forms with examples drawn from American, English, and European literature. (Formerly 455)

## ENGL 483. Modern Drama (4)

American, English, and European dramatic literature from 1890 to the present.
ENGL 495. Advanced Studies in English (Topic to be specified in Class Schedule) (4)

Intensified study of a major figure, area, or topic in English. (Formerly 496) May be repeated for a total of 8 units. Prerequisite: Consent of instructor.

ENGL 498. Individual Study (3-4)
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.

## Graduate

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.

## ENGL 500. Seminar: Graduate Studies in English

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 so 1550

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 (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 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.

## English

## ENGL 560. Seminar: Twentieth 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 598. Individual Study (3-5)
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)

# Fine Art 

Ralf Parton, M.A., Associate Professor, Chairman<br>Martin L. Camarata, M.A., Associate Professor<br>Gerald L. McDowell, M.A., Assistant Professor James Piskoti, M.F.A., Assistant Professor<br>Barry A. Rosenberg, M.A., Assistant Professor Garner H. Tullis, M.A., Assistant Professor

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

The department emphasis is upon the development of the student's creative potential in order to prepare and encourage him to make independent critical judgments.

The fine 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, FINE ART

Fine 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 48 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 FINE ART MAJOR AND MINOR

1. No particular pattern of high school art courses is required for admission to the fine art program, but candidates for a major in fine art are expected to have special interest and ability in art as revealed by superior grades in fine art courses.
2. A freshman or lower division transfer will be evaluated for acceptance as a major or minor in fine art during the final quarter of the sophomore year. Students entering as transfers at the upper division level will be evaluated for acceptance as majors or minors in fine art during the latter part of the first quarter in which they enroll in fine art courses in the College. Evaluation will be based upon lower division course work completed in fine art and a portfolio to include work done on the student's own initiative and work done under class supervision.

## Fine Art

3. The Department of Fine Art reserves the right to retain student art works and slides for temporary or permanent exhibitions.
4. All seniors will submit a set of slides for the department's file.
5. All students engaged in studio courses are required to work 6 hours per course per week outside of the scheduled studio time.
6. All fine art majors are required during their senior year to present a representative portfolio of their art work to a faculty committee and to participate in a group or one-man show. Satisfactory performance of both work and exhibition is mandatory for fulfillment of the major's requirement.

## DEGREE MAJOR IN FINE ART

Foundation Program ..... Units
ART 100. Basic Drawing ..... 4
ART 101. Anatomical Drawing ..... 4
ART 102. Pictorial Systems ..... 4
ART 110. Foundations of Two-Dimensional Composition ..... 4
ART 120. Foundations of Color ..... 4
ART 130. Foundations of Threc-Dimensional Composition ..... 4
ART 210. Relief Printing ..... 4
ART 220. Oil Painting ..... 4
ART 230. Modeling ..... 436
Upper Division Requirements
ART 300. Life Drawing ..... 4
ART 301. Figure Drawing ..... 4
ART 302. Pictorial Composition ..... 4
ART 311. Intaglio ..... 4
ART 312. Lithography ..... 4
ART 321. Water Color ..... 4
ART 323. Mixed Media ..... 4
ART 331. Metal Sculpture ..... 4
ART 332. Carving ..... 4
Total ..... 72All majors should take their required courses in an order which doesnot violate the prerequisites.
DEGREE MINOR IN FINE ART
(36 units, to include at least 12 upper division units)
Lower DivisionART 110. Foundations of Two-Dimensional Composition, 4 unitsART 120. Foundations of Color, 4 units
ART 130. Foundations of Three-Dimensional Composition, 4 units
ART 210. Relief Printing, 4 units
ART 220. Oil Painting, 4 units
ART 230. Modeling, 4 units

## Upper Division

ART 340, 341, 342. Art History, 12 units

## TEACHING CREDENTIALS

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

1. Degree major in fine art.
2. ART 497, Senior Colloquium.
3. Secondary credential candidates must complete a minimum of 9 units in studio courses in Fine Art as postgraduate work and receive approval of the Department of Fine Art as to subject matter competence.
4. Complete requirements for credential as presented by the Education Department.

## COURSE DESCRIPTION

## DRAWING AND FOUNDATIONS

## Lower Division

## ART 100. Basic Drawing

(4)

Drawing as a means of visual expression; observation and representation of still life and the human form; various drawing media will be used.

## ART 101. Anatomical Drawing (4)

Structure of individual objects; emphasis on the human form. Further development of calligraphic techniques.

## ART 102. Pictorial Systems (4)

Forms and their relationship to pictorial space. Various space concepts as related to the development of a personal pictorial language.

ART 110. Foundations of Two-Dimensional Composition (4)
Studio exploration of plastic elements as a basis for building visual language for two-dimensional composition.

## ART 120. Foundations of Color

Laboratory investigation of color interaction.
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.

## Upper Division

ART 300. Life Drawing (4)
Further investigation of visual language. Problems in figure and drapery, still life, and landscape, using a variety of drawing media. Emphasis on group studies and composition. Prerequisite: ART 101, 102, or consent of instructor.

## ART 301. Figure Drawing <br> (4)

Drawing the draped and undraped figure with an emphasis on proportion, structure, anatomy, and compositional possibilities; insertion and articulation of the bone, joint, and muscle structure. Prerequisite: ART 11 or 102, or consent of instructor.

## ART 302. Pictorial Composition (4)

Elaboration of problems explored in Pictorial Systems (ART 102).

## ART 405. Advanced Drawing

Advanced problems in drawing with emphasis upon expression. Prerequisite: Either ART 300, ART 301, or consent of instructor. May be repeated for a total of 12 units.

## Fine Art

## PRINTMAKING

## Lower Division

## ART 210. Reliof Printing

Fundamental theories and practices involved in the process of relief printmaking. Emphasis on materials, techniques, tools, and craftsmanship. (Formerly 362) Prerequisite: ART 100, 101, 102, 110, 120, and 130, or consent of instructor.

## ART 311. Intaglio Printing (4)

## Upper Division

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

## ART 415. Advanced Printmaking (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: ART 210, 311, 312 or consent of instructor.

## PAINTING

## Lower Division

## ART 220. Oil Painting (4)

Fundamental theories and practices involved in the painting processes; emphasis on materials, techniques, tools, and craftsmanship. Problems in the oil medium.

Prerequisite: ART $100,101,102,110,120$, and 130 , or consent of instructor.

## Upper Division

## ART 321. Watercolor Painting (4)

Techniques of aqueous painting including watercolor, casein, gouache, and egg tempera; concentration upon techniques as they relate to expression. Prerequisite: Completion of foundation courses or consent of instructor.

## ART 323. Mixed Media (4)

Techniques of casein, gouache, tempera, collage, acrylic; intermixing of oil and water-base media. Prerequisite: Completion of foundation courses or consent of instructor.

## ART 395. Art Studio in Mexico (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. Prerequisites: ART 220, 321, 323 or consent of instructor.

## Postbaccalaureate

ART 695. Art Studio in Mexico (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.

## SCULPTURE

## Lower Division

## ART 230. Modeling (4)

Fundamental theories and practices involved in modeling, emphasis on materials, techniques, tools, and craftsmanship.
Prerequisite: ART 100, 101, 102, 110, 120 and 130 or consent of instructor.

## Upper Division

## ART 331. Metal Sculpture (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 foundation 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 foundation 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: ART 230, 331, 332 or consent of instructor.

## HISTORY AND CRITICISM <br> Upper Division

ART 340. Art History I (4)
Analysis and interpretation of the visual arts and their historical development from prehistoric through Roman; concentration upon painting and sculpture. (Formerly 325)

ART 341. Art History Il (4)
Analysis and interpretation of the visual arts and their historical development from the Medieval through Roccoco; concentration on painting and sculpture. (Formerly 326)
ART 342. Art History III (4)
Analysis and interpretation of the visual arts and their historical development from the French academy to the present; emphasis on painting and 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.

## Fine Art

## 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 from post-Impressionism to the present, with emphasis on post-World War I in America.

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

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

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

Significant trends, schools, and styles of art of the Americas from Pre-Colombian through contemporary art forms.

## ART 496. Senior Seminar (4)

Intensified study of the nature and problems confronting the contemporary American artist. Prerequisite: Senior fine art major or consent of instructor.

## ART 497. Senior Colloquium (4)

Intensified study of the nature of art in the secondary public school. Prerequisite: Senior art major and minor involved in the credential program 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 fine 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 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 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 (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.

## ART 480. Art Education in Secondary Schools (4)

Contemporary trends in art education. Development, selection, and organization of teaching materials and procedures towards building art curriculum on secondary levels; observation and participation.

## 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.

## POSTEACCALAUREATE

## ART 696. The World of Visual Arts (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. May be repeated.

# Foreign Languages 

Lowell G. Richardson, Ph.D., Associate Professor<br>George H. Yu, Ph.D., Assistant Professor<br>Margaret L. Wilson, M.A., Instructor

The Communication Arts and Sciences offers the Bachelor of Arts, Spanish. Minors are offered in French and Spanish and a major in French is projected.

The program in foreign languages, French and Spanish, is designed to meet the needs of students who plan to teach foreign languages and literature, as well as those who have need for foreign languages to support an academic discipline or profession. Lower division German and first year Chinese are offered.

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, SPANISH

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.

## DEGREE 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

Unifs
Required course in supporting field:
SPCH 467. Structural Linguistics and Phonology, 4 units
Required courses in major field:

SPAN 312. Advanced Style and Syntax ................................................... 4



One course in Spanish American literature or civilization as approved by
major adviser



[^17]
## DEGREE MINOR IN SPANISH

( 36 units, to include at least 12 units in upper division with minimum of 22 college units)

## Lower 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 postgraduate work and receive approval of Foreign Languages as to subject matter competence.
3. Complete requirements for credential as presented by the Education Department.

## DEGREE 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

## 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.
[^18]
## COURSE DESCRIPTIONS

## CHINESE

## Lower Division

## CHIN 101. Elementary Chinese I <br> (4)

Introduction to standard Chinese by the audio-lingual method. Elements of the written language are introduced. Prerequisite: None.

## CHIN 102. Elementary Chinese II

Continuation of CHIN 101. Prerequisite: CHIN 101.
CHIN 103. Elementary Chinese III (4)
Continuation of CHIN 102. Prerequisite: CHIN 102.
FRENCH

## Lower Division

FREN 101. Elemenfary 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 (4)

Continuation of FREN 102. Prerequisite: FREN 102 or equivalent.
FREN 201. Intermediate French 1 (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.

FREN 202. Intermediate French II (4)
Continuation of FREN 201. Prerequisite: FREN 201, or equivalent.
FREN 203. Intermediate French III (4)
Continuation of FREN 202. Prerequisite: FREN 202, or equivalent.

## Upper Division

FREN 311. Composition and Conversation (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.

FREN 312. Advanced Style and Syntax (4)
Intensive review of grammar, writing and speaking of current idiomatic French. Prerequisite: FREN 311 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 Literature 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.

## Foreign Languages

## FREN 41I. Advanced Composition <br> (4)

Intensive practice at advanced level in written and spoken French. Prerequisite: FREN 311.

## FREN 421. French Poetry 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 Novel of the Nineteenth 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. Twentieth Century French Drama (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 Liferature (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 451. Literature of Age and Enlightenment (4)
French literature of l'Age de Raison from the Revocation of the Edict of Nantes to the French Revolution, stressing Voltaire, Rousseau, Montesquieu, and Diderot. Prerequisites: FREN 341 and 342 or consent of instructor.

## FREN 461. French Civilization I (4)

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. French Phonetics (4)

A scientific 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 498. Individual Study (3-5)
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.

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## Foreign Languages

GERM 102. Elementary German 1 I (4)
First year German. Continuation of GERM 101. Prerequisite: GERM 101 or equivalent.

## GERM 103. Elementary German IH (4)

First year German. Continuation of GERM 102. Prerequisite: GERM 102 or equivalent.

## GERM 201. Intormediate Gorman 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.

## SPANISH <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 201. 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. Intermediate Spanish II (4)

Continuation of SPAN 201. Prerequisite: SPAN 201 or equivalent.

## SPAN 203. Intermediate Spanish III (4)

Continuation of SPAN 202. Prerequisite: SPAN 202 or equivalent.

## Upper Division

## SPAN 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 I (4)

Early period through the Golden Age. Lecture and discussion. (Formerly 441) Prerequisite: two years of lower division Spanish or consent of instructor.

## SPAN 342. Literafure of Spain 1f (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.

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

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.

## Graduate

SPAN 598. Individual Study (3-5)
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

Leon S. Pitman, M.A., Assistant Professor

The Division of Arts and Sciences offers courses in geography as supportive materials for the Social Sciences.

## COURSE DESCRIPTIONS

## Lower Division

GEOG 200. Introduction to Geography (4)
Introductory study of the traditions, concepts, tools and methods of modem 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 envuronment, 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.

## Upper Division

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.

## GEOG 351. Geography of North America

Spatial pattern, analysis and relations of environments in North America with emphasis on their evolvement, infiuences of human-natural environmental factors, problems of regional inequalities.

History<br>David Bentheim Stenzel, Ph.D., Professor, Chairman<br>John E. Caswell, Ph.D., Professor<br>J. W. Smurr, Ph.D., Professor<br>Curtis R. Grant, Ph.D., Associate Professor<br>Franklin B. Holder, Ph.D., Associate Professor<br>John P. Rasmussen, Ph.D., Associate Professor<br>Britten Dean, M.A., Assistant Professor<br>Robert R. Smith, M.A., Assistant Professor<br>Ronald Jay VanderMolen, 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. The student seeking a Bachelor of Arts, Social Sciences may select an interdepartmental major in history and other disciplines within the social sciences.

## 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 40 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.
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. (Transfer students who earn junior or higher standing at Stanislaus State College by spring 1970 are exempt from this requirement.)

## History

DEGREE MAJOR IN HISTORY
Prerequisites to the Major
Required courses in the major field:HIST 101, 102, 103. Western Civilization I-III, 12 units
The Major ..... UnitsCompletion of two courses in each of the following groups as approved bymajor adviser:
Group One
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
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
HIST 351. Colonial Hispanic America
HIST 352. Hispanic American States Since Independence
HIST 380. East Asia in Traditional Times
HIST 381. East Asia in the Modern World
HIST 403. Age of Exploration
HIST 404. Rise of European Colonial Systems 1800-1914
HIST 405. Fall of European Colonial Systems 1914-1965
HIST 480. Modern ChinaHIST 484. Modern Japan8
Completion of the following:
HIST 496. Senior Seminar ..... 4
Electives on advisement ..... 12
Total ..... 40
DEGREE MINOR 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 postgraduate 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. Forty quarter units of upper division history to include HIST 496 Senior Seminar, or equivalent.
2. A grade point average of 3.0 in the undergraduate major.
3. Satisfactory performance in the Graduate Record Examinations, both general aptitude and history.
4. A reading knowledge of an appropriate foreign language will be required for admission to the program after the spring 1971 registration period.

## Requirements for the Degree

I. Completion of at least 45 units to include the following:

Option A. Thesis Plan Units


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 Study
10-13
Minimum required in 500 level courses - 20
Additional electives selected from courses listed under II below to complete at least 45 units for the degree.
Recommendation for the degree by the candidate's committee. To help make its recommendation, the committee will meet with the candidate to review the thesis.
Option B. Colloquia Plan
HIST 593. The History of Historical Writing. $\quad 5$


Minimum required in 500 level courses
Satisfactory performance on a written examination (to be reviewed by his committee) in the candidate's field of specialization.
Recommendation for the degree by the candidate's committee.

## History

II. Additional electives selected from the following upon advisement: ..... UnitsHIST 403. Age of Exploration, 4 unitsHIST 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 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 470. American Diplomatic History, 4 units
HIST 474. American Constitutional 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
HIST 523. Colloquium in Modern European 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 unitsAdditional Electives20-25
III. Additional RequirementsOf 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 admissionto classified graduate standing.
Students are to maintain continuous registration except for summersessions.
A reading knowledge of an appropriate foreign language as determinedby the Department of History.Satisfactory completion of a comprehensive oral examination. No coursework below " $B$ " grade level will be accepted in fulfilling any M.A. re-quirements. If the candidate earns less than a " B " average in any singlequarter, departmental review of the candidate's eligibility is mandatory.Withdrawal of candidacy may result.

## COURSE DESCRIPTIONS

## history of civilization series

## Lower Division

## HIST 101. Western Civilization I (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.
HIST 103. Western Civilization III (4)
Continuation of HIST 102; the modern world since the Enlightenment. Meets General Education requirement in U.S. History.

## HISTORY OF EUROPE SERIES <br> Upper Division

HIST 311. Hellenic Civilization I (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 II (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 equivalent.

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 Reformation Fra. Prerequisites: Sophomore standing and HIST 101, 102, 103 or equivalent.

## HIST 322. Europe From 1648 to 1799 (4)

The Ages of Enlightenment and Revolution. Prerequisites: Sophomore standing and HIST 101, 102, 103 or equivalent.

HIST 323. Nineteenth Century 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.

## history of america series

Upper Division

## 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-Bellum 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. America 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.

## 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. Prerequisite: Sophomore standing.

## History

## HISTORY OF EAST ASIA SERIES <br> Upper Division

## HIST 380. East 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. Prerequisites: Sophomore standing and one year of college level history.

## HIST 381. East Asia in the Modern World (4)

Disintegration of the traditional civilizations of China, Japan, and Korea under the impact of the West, and the subsequent quest for reintegration and adjustment to the West since the mid-thirteenth century. Prerequisites: Sophomore standing and one year of college level history.

## HIST 389. East Asian Intellectual History (4)

Historical survey of the major works of Chinese and Japanese thought. Prerequisites: Sophomore standing and one year of college level history.

## HISTORY OF HISPANIC AMERICA SERIES <br> Upper Division

HIST 351. Colonial Hispanic America (4)
From the eve of European conquest to the end of colonial control by Spain and Portugal. Prerequisites: Sophomore standing and HIST 101, 102, and 103 or equivalent.

## HIST 352. Hispanic American States Since Independence <br> (4)

From the struggle for independence to the mid-twentieth century. Prerequisites: Sophomore standing and HIST 101, 102, 103 or equivalent. HIST 351 recommended.

## SPECIALIZED STUDIES

## 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. Modern World History Since 1945 (4)

Prerequisites: HIST 101, 102, and 103 or equivalent and consent of instructor. HIST 308 is recommended.

## HIST 367. California History and Geography <br> (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 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 1800-1914 (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 Systems 1914-1965 (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. Prerequisites: Junior standing and HIST 101, 102, and 103 or equivalent.

## 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. Germany Since 1648 (4)
Prerequisites: Junior standing and HIST 101, 102 and 103 or equivalent.

## HIST 442. Russia Since 1689 (4)

Prerequisites: Junior standing and HIST 101, 102 and 103 or equivalent.
HIST 446. Modern Britain (4)
Tudor era to present: evolution from medieval kingdom to modern state. Prerequisites: Junior standing and HIST 101, 102 and 103 or equivalent.

HIST 450. History of Mexico (4)
From pre-Columbian civilizations to the mid-rwentieth century, with emphasis on the nineteenth and twentieth centuries. Prerequisites: Junior standing and HIST $101,102,103$ or equivalent.

## 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.

## 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.

## History

## HIST 478. American Intellectual and Social History 1 (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

Evolution of American thought and social institutions from the mid-ninetcenth 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 one year of college level history. HIST 380 and 381 recommended.

## HIST 484. Modern Japan (4)

Development of Japan; emphasis on the period 1853 to present. Prerequisites: Junior standing and one year of college level history. HIST 380 and 381 recommended.

## HIST 496. Senior Seminar (Topics to be specified in Class Schedule) (4)

Methodology of History. Research techniques applied to investigation of original source material. May be repeated for a maximum of 8 units. Prerequisites: Senior standing, advanced course work in history, and consent of instructor.

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

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.

## Graduate

## HIST 523. Colloquium in Modern European History (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 European 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 Class Schedule)

Directed reading in the literature of the field. Prerequisites: Advanced course work in American history and consent of instructor.

## HIST 564. Seminar in American History (Topics to be 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 598. Individual Study (3-5)
For qualified graduate students in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisites: Consent of instructor.

## HIST 599. Thesis (5)

Thesis research. Prerequisite: Consent of instructor.

## Mathematics

James N. Javaher, Doctorat d'Université, Professor, Chairnan<br>Narendra L. Maria, Ph.D., Associate Professor<br>Rudolph B. Merkel, Ph.D., Associate Professor<br>Shang Wang Chang, Ph. D., Assistant Professor<br>Louis A. Feldman, Ph.D., Assistant Professor<br>Martin N. Fealk, M.A., Assistant Professor

Courses in mathematics are designed primarily to provide thorough undergraduate training in pure and applied mathematics, and to serve the needs of majors in mathematics, science, and other departments. 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.
4. Completion of a minor is not required.

DEGREE MAJOR IN MATHEMATICS
Prerequisite to the Major
MATH 119. Analytic Geometry and Matrices, 4 units.
MATH 120, 221, 222, 223. CaIculus I-IV, 16 units.
The Major ..... Units
MATH 311, 312, 313. Analysis I-III ..... 12
MATH 351, 352. Modern Algebra I-II ..... 8
Courses in mathematics as approved by major adviser ..... 20
Total ..... 40
dEgREE MJNOR IN MATHEMATICS
(28 units, to include at least 16 units in upper division)

## Lower Division

MATH 119, 120, 221. Analytic Geometry and Matrices; Calculus I-II, 12 units.

## Upper Division

MATH 351. Modern Algebra I, 4 units (Physical Science majors may substitute with MATH 321,420 or 460 )

Courses as approved by minor adviser, 12 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 as a part of the $16-22$ units approved by the major adviser in the degree major in mathematics.
3. Secondary credential candidate must complete 9 units in courses in mathematics as postgraduate work and receive approval of Mathematics Department as to subject matter competence.
4. Complete requirements for credential as presented by the Education Department.

## COURSE DESCRIPTIONS *

## Lower Division

## MATH 100. Math for Liberal Arts Students 1 (5)

Sets, relations, structure of number systems, systems of numerations, modular arithmetic, properties of the sets of natural numbers, integers, rational and irrational numbers, real numbers, applications. Recommended for general students and those seeking an elementary teaching credential. Not open to students who have had MATH 120 or equivalent. Credit not applicable to major or minor in mathematics. Prerequisites: One year of high school algebra and a knowledge of plane geometry or consent of instructor.

## MATH 101. Math for Liberal Arts Students il (4)

Continuation of MATH 100. Euclidean geometry, solid figures, measurements, polyhedra, functions and graphs, Cartesian coordinates, inequalities, logic, mathematical patterns, and mathematical systems. Recommended for general students and those seeking an elementary credential. Not open to students who have had MATH 120 or equivalent. Credit not applicable to major or minor in mathematics. Prerequisite: MATH 100 or consent of instructor.

## MATH 110. College Algebra and Trigonometry

Binominal theorem, inequalities, theory of equations, quadratic systems, determinants, probability, trigonometric functions; solution of triangles, graphing, inverse functions, complex numbers, polar coordinates, trigonometric series, hyperbolic functions, application to practical problems. Recommended for students of applied sciences. Prerequisite: Two years of high school algebra.

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## Mathematics

## MATH 119. Analytic Geometry and Matrices (4)

Euclidean plane, coordinate system, functions, analytic trigonometry, properties of vectors, analytic geometry and conic sections, matrices, change of coordinate systems. Prerequisites: Two years of high school algebra, one year of plane geomctry, and one-half year of plane trigonometry or MATH 110.

## MATH 120. Calculus I (4)

Limit and continuity, 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, linear algebra, vector spaces, vector field theory, introduction to differential equations. Prerequisite: MATH 119.

## 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: One year of high school algebra.

## MATH 210. Finite Mathematics (4)

Fundamental principle of truth, laws of deductive reasoning, use of tree diagrams in problem solving, algebra of sets, theory of partitions and counting, probability, finite stochastic processes, Markov chains.

MATH 221. Calculus II (4)
Continuation of MATH 120. Prerequisite: MATH 120.

## MATH 222. Calculus III (4)

Continuation of MATH 221. Prerequisite: MATH 221.

## MATH 223. Calculus IV (4)

Continuation of MATH 222. 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. Introduction to the Theory of Sets (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 the Real Numbers (4)

Derivation of the positive integers from the Peano axioms, their additive, multiplicative, and Archimedian properties; the existence of zero and negative integers; integers as an Archimedian ordered integral domain, 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 Classical Geometry (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, differentration, complex variables. Cauchy-Riemann conditions. Riemann-Stielties integral. Sequences and series of functions. Uniform convergence, Fourier series, functions of several variables, implicit function theorem, inverse function theorem, Lagrange multipliers, Green's and Stoke's theorems, Lebesgue's theory. Prerequisite: MATH 223.

MATH 312. Analysis It (4)
Continuation of MATH 311. Prerequisite: MATH 311.
MATH 313. Analysis III (4)
Continuation of MATH 312. Prerequisite: MATH 312.
MATH 321. 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)

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 223 or consent of instructor.

## MATH 332. The 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 334. Differential and Algebraic Topology
Homotopy, the fundamental group and simple correctedness, differentiable connections and their relation to curvature, elementary homology and cohomology, various manifold dualities, De Rham's theorem. Prerequisites: MATH 333 and 351.

## Mathematics

## MATH 341. Introduction to Linear Programming (4)

Linear programming problems and their mathematical formulation solutions other than linear programming, linear programming models, linear equations and linear inequality systems, the simplex method, validity of solutions. Prerequisite: MATH 119 or consent of instructor.

## MATH 342. Linear Programming (4)

Vector spaces and matrices, geometry of linear programs, equivalent and redundant systems, generalization of the simplex method by means of multipliers and perturbations, price concept in linear programming, linear programming and game theory. Prerequisite: MATH 341.

## MATH 343. Extensions of Linear Programming (4)

Classical transportation problem, optimal assignment, distribution problems, transshipment problem, maximal flows in networks; uncertainty, nutrition problem, allocations of aircraft to routes under uncertainty of demand. Prerequisite: MATH 342.

MATH 351. Modern Algebral (4)
Elementary properties of groups, rings, integral domains, and fields. Prerequisite: Consent of instructor.

## MATH 352. Modern Algebra II (4)

Modules and ideals, invariant direct-sum decompositions of vector spaces, groups with operators, fundamental theorem on finitely generated Abelian groups, the rational and Jordan forms, inner product spaces, bilinear forms. Prerequisite: MATH 351.

## MATH 353. Linear Algebra (4)

Linear equations, vector spaces, linear transformations, polynomials, determinants. Prerequisite: Consent of instructor.

## 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

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 approval of the department. 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, and curl. Applications to geometry and physics. Prerequisite: MATH 222.

## Mathematics

## MATH 431. Numerical Analysis I (4)

Newton, Lagrange and Chebyshev approximation of functions. Inverse interpolation, numerical evaluation of roots and define integrals. Prerequisite: MATH 223.

## MATH 432. Numerical Analysis II (4)

Solution of systems of linear equations. Application of numerical methods to the solution of partial differential equations and integral equations. Prerequisite: MATH 431.

## 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 312.

MATH 498. Individual Study (3-4)
For students capable of independent work and in need of advanced and specialized study. May be repeated for a total of 9 units. Prerequisites: Senior standing, consent of instructor, and also see departmental regulations.

## Graduate

MATH 598. Individual Study (3-5)
For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor, and also see departmental regulations.

## Professional Postgraduate

MATH 600. Structure of Real Number System (5)
Sets, relations, systems of numerations, modular arithmetics, properties of the sets of natural numbers, integers, rational and irrational numbers, real numbers. 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 601. Geometry and Mathematical Systems (4)

Continuation of MATH 600. Euclidian geometry, solid figures, measurements, polyhedra, functions and graphs, Cartesian coordinates, and mathematical systems. Recommended for elementary and junior high school teachers.

## MATH 610. Finite Mathematics (4)

Fundamental principle of truth, laws of deductive reasoning, use of tree diagrams in problem solving, algebra of sers, theory of partitions and counting, probability, finite stochastic processes, Markov chains. Recommended for elementary and junior high school teachers seeking an advanced course in mathematics.

# Music 

Giovanni Camajani, Ph.D., Professor, Coordinator<br>Gene C. Wisler, Ed.D., Professor<br>Sylvia M. Ghiglieri, M.M., Assistant 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 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 Coordinator 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 36 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. Prior to acceptance as a music major or minor the student is required to demonstrate an acceptable level of performance skills in both piano and voice. Minimum abilities are: Piano-play four-part hymns and provide a simple accompaniment utilizing I, IV, $\mathrm{V}_{7}$ chords for songs selected from literature of the community singing type; Voice-sing any part of a four-part hymn; demonstrate knowledge of proper phrasing, breathing, vowels and consonants, and tone production in songs selected from simple vocal literature. The student should consult his adviser about this requirement and if necessary schedule courses in piano and voice during the freshman year. Class instruction is offered at the beginning level in both piano and voice.

## Music

3. 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.
4. A freshman or lower division transfer will be evaluated for 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 an audition in the major medium of performance conducted by a committee of the music faculty.
5. Students are required to perform in recital as a part of a course in applied music as determined by the instructor.
6. Music majors are required to participate in one performing group (chorus, ensemble or band) each quarter.
7. 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 Major

MUS 122, 123, 124. Foundational Theory I-III, 9 units
MUS 161, 164. Basic Class Piano and Basic Class Voice, 1 unit (May be met by examination; addjtional 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 221, 222, 223. Intermediate Theory I-III, 9 units
MUS 241 or 242 or 243 or 244 . Group Performance (chorus, choral or instrumental ensemble, concert band), 6 units
MUS 261 through 287. Applied Music (major performance medium), 6 units
The Major ..... Units
MUS 301, 302, 303. History and Literature I-III ..... 9
MUS 321. Analysis and Composition in Small Forms ..... 3
MUS 324. Orchestration ..... 3
MUS 325. Conducting ..... 3
MUS 441, 442, 443, 444. Group Performance (chorus, ensembles, or concert band) ..... 6
MUS 461 through 487. Applied Music (major performance medium) ..... 6
Courses as approved by major adviser ..... 6
Total ..... 36

Students preparing for the Credential Program in Music are advised to include courses in String, Woodwind, and Brass Techniques.

## Music

## DEGREE MINOR IN MUSIC

(28 units, to include at least 15 units in upper division)

## Lower Division

MUS 122, 123, 124. Foundational Theory I-III, 9 units
MUS 161, 164. Basic Class Piano and Basic Class Voice, 1 unit (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 241 or 242 or 243 or 244 . Group Performance (chorus, choral or instrumental ensemble, concert band), 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. Conducting
MUS 335. Music in the 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 or 442 or 443 or 444 . 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 fulfill the following requirements:

1. Degree major in music.
2. In addition to the degree major, complete MUS 335. Music in Elementary School (may be taken in upper division, but must be taken prior to student teaching).
3. Secondary credential candidates must complete 15 units in music courses as postgraduate work, which include Major Instrument or Voice, String Techniques, Percussion Techniques, Analysis of Instrumental or Vocal Literature, and Advanced Conducting.
4. Complete requirements for credential by the Education Department.

## MUSIC COURSES FOR NON-MAJORS

For the non-major who is interested in music as a cultural heritage, Music offers courses in Symphonic Literature, the Bach Festival (given only in the summer session), the World of Opera, American Music and a Survey of the Oratorio. Music also welcomes general student participation in its group performance courses (chorus, ensembles and concert band). These presume an ability to read music and a degree of performance skill.

## GROUP PERFORMANCE COURSE CREDIT

A maximum of 18 units, including no more than 9 units in lower division in group performance courses (chorus, ensemble or band) may apply toward a degree.

## Music

## COURSE DESCRIPTIONS

## THEORY

## Lower Division

## MUS 101. Solfege I (2)

Study of the rudiments of rhythm, intervals, notation and sight-reading. Students who major or minor in music may enroll for the solfege courses to be taken concurrently with Foundational Theory. Units are not credited to the major or minor, but may be credited towards graduation. No prerequisites.

## mus 102. Solfege II (2)

Continuation of MUS 101. Two-part exercises and elaboration of rhythmic and chromatic difficulties. Prerequisite: MUS 101.

## MUS 103. Solfege III (2)

Continuation of MUS 102. Two-part exercises with text, maximum difficuities of pitch and rhythm. Readings of four-part excerpts from accepted masterworks. Prerequisite: MUS 102.

MUS 122. Foundational Theory I
(3)

Scales, intervals, all triads and inversions, cadences, chord connections, and fourpart writing. Ear training, sight singing, analysis, and keyboard harmony. Prerequisite: Ability to read music.

MUS 123. Foundational Theory Il (3)
Continuation of MUS 122. Non-harmonic tones, second inversion triads, dominant seventh chord with inversions, and modulation. Ear training, sight singing, analysis, and keyboard harmony. Prerequisite: MUS 122.

MUS 124. Foundational Theory III (3)
Continuation of MUS 122. Secondary dominants, diminished seventh chord, modulation and dominant ninth chord. Ear training, sight-singing, analysis and keyboard harmony. Prerequisite: MUS 123.

MUS 221. Intermediate Theory 1 (3)
Continuation of MUS 124. Seventh chords and inversions, sequence and nondominant ninth, eleventh and thirteenth chord. Ear training, sight singing, analysis and keyboard harmony. Prerequisite: MUS 124.

MUS 222. Infermediate Theory II (3)
Continuation of MUS 221. Altered chords, chromatic modulation, modal harmony. Impressionistic devices and some aspects of twentieth century harmony. Ear training, sight-singing, analysis and keyboard harmony. Prerequisite: MUS 221.

## MUS 223. Intermediate Theory III (3)

Continuation of MUS 222. 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 three-part forms. Prerequisite: MUS 222.

## Upper Division

## MUS 321. Analysis and Composition in Small Forms (3)

Analysis of musical structure from the short two- and three-part forms to sonataform; emphasis on the comparison of styles and the development of an ability to write in small forms. Prerequisite: MUS 223.

## Music

## 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 223 or consent of instructor.

## MUS 325. Condueting (3)

A study of basic baton technique and score reading. Prerequisite: MUS 223 or consent of instructor.

## MUS 425. Advanced Conducting (3)

Continuation of MUS 325; emphasis on score reading, interpretation, styles and advanced problems in conducting. Prerequisite: MUS 325 or consent of instructor.

## hISTORY AND LITERATURE <br> Lower Division

MuS 100. Introduction to Music (A)
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. No prerequisites.

## MUS 230. Symphonic Literature (3)

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.

## Upper Division

## MUS 301. History and Literafure I (3)

An 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 II (3)

Continuation of MUS 301. Music of the Baroque and Classical eras. Prerequisite: Ability to read music.

## MUS 303. History and Literature Ih (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 320. The World of Opera (3)

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. Prerequisite: MUS 100.
mus 340. American Music (3)
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 350. Survey of the Oratorio
(3)

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. Prerequisite: MUS 100.

## MUS 401. Music in the Renaissance Era (3)

A critical analysis of music from the late fourteenth century through the sixteenth century. Prerequisite: Ability to read music.

## MUS 402. Music of the Baroque 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 Nineteenth 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 Schoenberg. 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.

## mus 451 . Analysis of Vocal 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

## MUS 365. String Techniques I (1)

Performance 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.

## Music

## MUS 368. Brass Techniques <br> (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. Prerequisitc: Consent of instructor.

## GROUP PERFORMANCE <br> 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 student will participate in public performances. May be repeated for a total 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 243. Instrumental Ensemble (1)
Study and performance of materials for small instrumental ensembles. Students are expected to participate in all public performances. May be repeated for a total of 6 units. Prerequisites: An acceptable degree of performance skill.

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 441. Chorus (1)
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 443. Instrumental Ensembie (1)
Study and performance of materials for small instrumental 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 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. Prerequisite: An acceptable degree of performance skill.

MUS 490. Opera Repertory Theatre (3)
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. Basic Class Voice (1)

Introduction to singing and vocal technique; posture, breathing, and tone production. Problems of tension and relaxation. May be repeated for a total of 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, and brasses. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.
mus 281. Intermediate Studio Piano (1)
Individual instruction in piano for intermediate level students. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

## MUS 284. Intermediate Studio Voice (1)

Individual instruction in singing; introduction to repertoire in English and Italian. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

## MUS 287. Intermediate Studio Orchestral Instruments (1)

Individual instruction in orchestral instruments: strings, woodwinds, and brasses. The student is advised to consult a music adviser as to the availability of instruction on his particular instrument. May be repeated for a total of 6 units. Prerequisite: Consent of instructor.

## Upper Division

## MUS 461. Advanced 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 (I)
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.

## Music

## MUS 467. Advanced Orchestral Instruments (1)

Advanced instruction in orchestral instruments: strings, woodwinds, and brasses. May be repeated for a total of 12 units. Prerequisite: Consent of instructor.
mus 481. Advanced Studio Piano (1)
Individual instruction in piano for advanced students. May be repeated for a total of 12 units. (Formerly 371) Prerequisite: Consent of instructor.

## muS 484. Advanced Studio Voice (1)

Intensive individual study of German lieder, French and Italian repertoire, and introduction to operatic roles and small scenes. May be repeated for a total of 12 units. Prerequisite: Consent of instructor.

MUS 487. Advanced Studio Orchestral Instruments
Individual advanced instruction in orchestral instruments: strings, woodwinds, and brasses. The student is advised to consult a music adviser as to the availability of instruction on his particular instrument. May be repeated for a total of 12 units. Prerequisite: Consent of instructor.

## MUSIC EDUCATION Upper Division

## MUS 335. Music in Elementary Schools

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 498. Individual Study (3-4)

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 598. Individual Study (3-5)
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, M.A., Assistant Professor

## DEGREE 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. Classies of Philosophy I

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. Classics of Philosophy III (4)

Continuation of PHIL 102. Neither PHIL 101 nor PHIL 102 prerequisite to PHIL 103.

PHIL 110. Deductive Logic
Analysis of the methods and principles of deductive reasoning, including traditional Aristotelian syllogistic logic, and an introduction to modern symbolic logic. (Formerly 201)

## PHIL 111 . Inductive Logic (4)

Analysis of the methods of science: definition, classification, inductive reasoning, scientific explanation. (Formerly 201)

## PHIL 140. Introduction to Ethics (4)

Introduction to ethical concepts, problems, and methods of analysis.

## 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.

## Philosophy

## PHIL 252. History of Philosophy III (4)

Continuation of PHIL 251. From the Renaissance through the ninetcen century. (Formerly 312) Prerequisite: PHIL 251.

## PHIL 302. Philosophy of 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.

## PHIL 303. Philosophy of Religion It (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 (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 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)

Critical analysis of fundamental ethical concepts, with readings from classical and contemporary writers in the field. (Formerly 301) Prerequisite: Twelve units in lower division courses in philosophy.

## PHIL 346. 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 courses in philosophy.

## PHIL 347. Aesthetics 11 (4)

Analysis of the organizing structures of music, poetry, novel, and drama. Critical examination of principles of art criticism. Prerequisite: PHIL 346.

## 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. Aristotie (4)

Critical study of selected works of Aristotle. Prerequisite: PHIL 380.

## PHIL 382. Later Antiquity (4)

Critical study of Epicureanism, Sroicism, and Plotinus. Prerequisite: PHIL 381.
PHIL 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. Prerequisites: PHIL 110 or MATH 301 or approval of the department. Same as MATH 400.

PHIL 401. Mathematical Logic II (4)
Continuation of PHIL 400. Prerequisite: PHIL 400. Same as MATH 401.

## Philosophy

## PHIL 405. Philosophy in Literafure (4)

Examination 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.

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

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 

Zaki I. Habashi, Ed.D., Associate Professor, Coordinator<br>James K. Hanny, M.A., Associate Professor<br>Richard D. Conant, M.S., Assistant Professor<br>* Janet C. Harris, M.S., Instructor<br>Dora L. Carter, M.A., 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, a program for preprofessional work such as physical therapy, and a preparation for work in industry as director of physical education.

## 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 44 upper division units.
4. Complete an academic minor.

DEGREE MAJOR IN PHYSICAL EDUCATION

## Prerequisites to the Major

Required courses in major field:
PHED 101, 102, 103. Fitness, Lifetime Activities, Team Activities, 0-12 units $\dagger$
Required courses in supporting fields: $\ddagger$
HLTH 101. Healthful Living, 2 units
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

[^21]
## Physical Education

The Major ..... Units
Required 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: ..... 4
PHED 390. Philosophy of Physical Education PHED 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 cducation seeking clementary and sccondary 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.
[^22]
## 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
PHED 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 degre 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 <br> physical education

## Lower Division

## PHED 101. Fitness (Men-Women)

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 bakground 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, swimming, tennis, water activities, and wrestling. Prerequisite: PHED 101.

## PHED 103. Team Activities ( $1 / 2$ )

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. Prerequisite: PHED 101.

## PHED 200. Sports Officiating (2)

The study and interpretation of rules for various sports; procedures, mechanics and practice in officiating.

## PHED 257. Intercollegiate Athletics ( $1 / 2$ )

To be selected from baseball, basketball, cross country, golf, tennis, and track. 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, softball, swimming, track and field, and volleyball. 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 stratcgy and tactics; evaluation techniques. Individual sports to be designated from the following: archery, badminton, bowling, fencing, golf, and tennis. 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. 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 Society (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.

## Physical Education

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 (4)

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 490. 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 498. 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

## Lower Division

## HLTH 101. Healthful Living

Body structure and elementary physiology; formation of sound health habits and attitudes; development of an effective philosophy of personal health.

## Physical Education

## 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.

HLTH 220. Health and Society (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

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 Sciences 

Vladimir S. Tuman, Ph.D., Professor of Physics, Chairman Ervin H. Schwarcz, Ph.D., Associate Professor of Physics James M. Goodwin, Ph.D., Assistant Professor of Physics Evan M. Thompson, Ph.D., Associate Professor of Chemistry Hobart G. Hamilton, Ph.D., Assistant Professor of Chemistry Glen O. Hultgren, Ph.D., Assistant Professor of Chemistry

The Department of Physical Sciences confers the degree Bachelor of Arts, Physical Sciences.

The program in physical sciences provides courses in the disciplines of astronomy, chemistry, geology and physics. Courses in the Department of Physical Sciences are designed to serve the needs of majors in physical sciences, physics, and chemistry. The department offers courses as part of the general education of students pursuing a liberal arts program, and provides supporting courses for students in biology, premedical, predental and mathematics programs.

The department also prepares prospective elementary and secondary school teachers.

## REQUIREMENTS FOR BACHELOR OF ARTS, PHYSICAL SCIENCES

Physical science majors are to:

1. Complete the requirements for the Bachelor of Arts Degree.
2. Complete prerequisites to the major.
3. Complete the major of not less than 37 upper division units.
4. Complete a minor to be selected in consultation with the major adviser. A minor in mathematics or philosophy is recommended.

## degree major in physical sciences

## Prerequisites to the Major

Required courses in major field:
CHEM 101, 102, 103. Principles of Chemistry I-III, 15 units
PHYS 101. Mechanics and Heat, 5 units
PHYS 102. Electricity and Optics, 5 units
PHYS 103. Modern Physics, 5 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. Analytic Geometry and Matrices, 4 units;
MATH 120. Calculus I, 4 units
Recommended course:
Philosophy 110. Deductive Logic, 4 units


## 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 postgraduate work and receive approval 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

## astronomy

## Lower Division

## ASTR 200. Descriptive Astronomy (4)

Topics in development of astronomy: solar system and stars. Lectures, observations, and field trips. (Formerly 300)

## 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 hours; discussion, 1 hour) Prerequisites: ASTR 200, PHYS 201 and 202 , or consent of instructor.

ASTR 302. Intreduction to Space Sciences II (4)
Continuation of ASTR 301. Includes guidance, tracking, information systems, and application of satellite information to meteorology, communications, and navigation. (Lecture, 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.

## Postbacealaureate

## ASTR 600. Astronomy (4)

Elementary concepts of astronomy: the solar system, the planets, and the galaxies within the universe.

GEOLOGY

## Lower Division

## GEOL 200. Principles of Geology I (4)

Study of rocks, minerals, fossils, geologic history, and evolution of life on earth. (Lecture, 3 hours; laboratory, 3 hours)

## 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.

## GEOL 221. Descriptive Mineralogy (3)

Physical and chemical properties of minerals; deals with description and determination of minerals on basis of their physical properties. (Lectures, laboratory, and field trips) Prerequisite: CHEM 102 or equivalent.

## Postbaccalaureate

## GEOL 600. Geology (4)

A condensed survey of the structure and materials that compose the outer portion of the earth, and the geologic processes responsible for sculpturing the earth today. A technical study of rocks, minerals, fossils; the origin, and geologic history and evolution of life on earth. (Lecture, 3 hours; laboratory, 3 hours)

## PHYSICAL SCIENCES <br> Lower Division

## PHSC 100. Introduction to Natural Sciences (5)

Principles and concepts of physics and chemistry which are common and basic to the natural sciences. Evaluation and correlation of experimental and observational data with the development and modification of scientific theorics. (Lecture, 3 hours; discussion, 1 hour; laboratory, 3 hours) No prerequisites.
No credit will be given to students with previous college chemistry or physics.

## Upper Division

## PH5C 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.

## Postbaccaluareate

## PHSC 600. Physical Sciences (4)

Elementary concepts of physics and chemistry: atoms and molecules; mechanical, chemical and electrical properties of matter. (Lecture, 3 hours; laboratory, 2 hours)

## Physics

Vladimir S. Tuman, Ph.D., Professor of Physics, Chairman, Department of Physical Sciences<br>Ervin C. Schwarcz, Ph.D., Associate Professor of Physics<br>James M. Goodwin, Ph.D., Assistant Professor of Physics

The Department of Physical Sciences offers the degree Bachelor of Arts, Physics.

Physics is studied by those preparing for professional fields, such as medicine, and for teaching or research careers. The study of physics is also a part of General Education. Prospective teachers on the college level are advised to obtain a B.A. degree with a major in physics.

The physics major is designed to give the student a broad and thorough understanding of the fundamentals of physics. Students are requested to consult with an adviser in order to plan their program and discuss opportunities after graduation. Graduates who do not intend to teach may work in government or industrial laboratories or may enter graduate work in physics or other scientific fields such as aerospace, astrophysics, biophysics or geophysics.

## 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 41 upper division units of physics.
4. Complete a minor to be selected in consultation with the major adviser. A minor in mathematics, chemistry or philosophy is recommended.

DEGREE MAJOR IN PHYSICS
Prerequisitas to the Major
Required courses in major field:
PHYS 101. Mechanics and Hear, 5 units
PHYS 102. Electricity and Optics, 5 units
PHYS 103. Modern Physics, 5 units
PHYS 221, 222, 223. Intermediate Physics I-III, 15 units
Required courses in supporting field:
(These courses may also apply towards the minor)
MATH 119. Analytic Geometry and Matrices, 4 units
MATH 120, 221. Calculus I-II, 8 units
MATH 321, 322, 323. Differential Equations I-III, 12 units
CHEM 101, 102, 103. Principles of Chemistry I-III, 15 units
Recommended course:
Philosophy 110. Deductive Logic, 4 units

## Physics

The Major ..... Units
PHYS 301, 302, 303. Advanced Laboratory I-III ..... 3
PHYS 311, 312. Analytical Mechanics I-II ..... 6
PHYS 322, 323. Fundamentals of Electrodynamics I-II ..... 6
PHYS 330. Introduction to Electronics ..... 2
PHYS 372. Modern Physics ..... 3
PHYS 373, 374. Quantum Mechanics I-II ..... 6
PHYS 401, 402, 403. Advanced Laboratory IV-VI ..... 3
PHYS 451. Thermodynamics ..... 3
PHYS 452. Introduction to Statistical Mechanics ..... 3
A minimum of six units of upper division electives from physics courses and including:
CHEM 461, 462, 463. Physical Chemistry I-III ASTR 301, 302, 303. Introduction to Space Sciences ..... 6
Total ..... 41-43

## DEGREE MINOR IN PHYSICS

Consists of 21 units in physics as approved by the minor adviser, to include at least 9 units in upper division.
Physics majors are required to earn a grade of C or better in all required major courses and their prerequisites.

## COURSE DESCRIPTIONS

## Lower Division

## PHYS 101. Mechanics and Heat (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.

## PHYS 102. Electricity and Optics (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. Intermediate Physics I (5)

Modern laboratory techniques to study the problems of mechanics; such as, displacement, velocity acceleration of an electron, oscillations, and exponential relaxation. (Lecture, 3 hours; discussion 1 hour; laboratory, 3 hours) Prerequisites: PHYS 101 and completion of or concurrent enrollment in MATH 221.

## PHYS 222. Intermediate Physics il (5)

Continuation of PHYS 221. Modern laboratory techniques to study the problems of electricity and magnetism, and solid state physics. Use of transistors, oscilloscope, power supply oscillators, coupled oscillators, periodic structure. (Lecture, 3 hours; discussion, 1 hour; laboratory, 3 hours) Prerequisites: PHYS 102, 221, and MATH 221.

## Physics

PHYS 223. Intermediate Physics III (5)
Continuation of PHYS 222. Modern physics and quantum mechanics utilizing modern laboratory techniques. Electron diffraction, Franck-Hertz experiment, radioactive decay, random processes. (Lecture, 3 hours; discussion 1 hour; laboratory, 3 hours) Prerequisites: PHYS 103, 222, and MATH 221.

## Upper Division

## PHYS 301. Advanced Physics I-Laboratory (1)

Fundamental experiments in mechanics, heat, electricity and magnetism, optics, and atomic physics. One set of apparatus for each experiment is available so that one or two students will perform a given experiment during a particular laboratory session. Prerequisite: PHYS 223 or equivalent.

PHYS 302. Advanced Physics II-Laboratory (1)
Continuation of PHYS 301. Prerequisite: PHYS 301.
PHYS 303. Advanced Physics III-Laboratory (1)
Continuation of PHYS 302. Prerequisite: PHYS 302.
PHYS 311. Analytical Mechanics I
(3)

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. Prerequisites: MATH 321 and PHYS 102.

PHYS 312. Analytical Mechanics II (3)
Continuation of PHYS 311. (Formerly 311) Prerequisite: PHYS 311.
PHYS 322. Electromagnetism I (3)
Fundamental principles, their application to both direct current and alternating current circuit theory. Introduction to Maxwell's electromagnetic theory of light and radio waves. Prerequisites: MATH 321 and PHYS 102.

PHYS 323. Electromagnotism II (3)
Continuation of PHYS 322. (Formerly 322) Prerequisite: PHYS 322.

## PHYS 325. Electromagnefism 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 (2)

Fundamental principles and theory of rectifiers; amplifiers; oscillators, oscilloscope and other resonant circuits and A.C. bridges. Prerequisites: PHYS 222 or concurrent enrollment or consent of instructor.

PHYS 331. Introduction to Electronics II (2)
Fundamental principles and theories of rectifiers, amplifiers, oscillators, oscilloscope and other resonant circuits and A.C. bridges. Prerequisite: PHYS 330.

## PHYS 372. Modern Physics (3)

Significant developments in physics arising from the discovery of the electron X-rays, and radioactivity. Prerequisites: MATH 222 and PHYS 325.

## PHYS 373. Quantum Mechanics I (3)

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. (Formerly Modern Physics II) Prerequisite: PHYS 372 or consent of instructor.

## PHYS 374. Quantum Mechanics II (3)

Continuation of PHYS 373. Prerequisite: PHYS 373.

## PHYS 401. Advanced Physics IV-Laboratory (I)

Experiments in atomic physics, nuclear physics, including Zeeman effect, scattering, the Fabry-Perot Interferometer. One set of apparatus for each experiment is available so that one or two students will perform a given experiment during a particular laboratory session. Prerequisite: PHYS 303.

## PHYS 402. Advanced Physics V-Laboratory (1)

Continuation of PHYS 401. Prerequisite: PHYS 401.
PHYS 403. Advanced Physics VI-Laboratory (1)
Continuation of PHYS 402. Prerequisite: PHYS 402.
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.

## PHYS 450. Elements of Astromechanics

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. Thermodynamics (3)

Expansion of matter, transmission of heat, specific heat, temperature, change of state, kinetic theory, Van der Waals equation. (Formerly 351) Prerequisites: MATH 223 and PHYS 102.

## PHYS 452. Introduction to Statistical Mechanies (3)

Concepts of statistical mechanics from Boltzmann point of view, including quantum statistics. (Formerly 382) Prerequisites: PHYS 351 and 373.

## 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, bond theory of solids. (Lecture, 3 hours) Prerequisite: PHYS 373.

## PHYS 471. Introduction to Theoretical Physics I

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.

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## Physics

## PHY5 473. Introduction to Theroetical Physics III (3) <br> Continuation of PHYS 472. Prerequisite: PHYS 472.

## PHYS 480. Theory of Elasticity and Mechanical Vibrations i (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 (4) <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 Schedule) (2-3)
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 (3-4)

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 (3-5)
For qualified graduate students in need of advanced or specialized study. May be repeated for a total of 9 units. Prerequisite: Consent of instructor.

# Political Science 

Paul F. Magnelia, Ph.D., Associate Professor, Coordinator<br>Young Hang Chang, Ph.D., Assistant Professor<br>- Stanley W. Moore, B.A., Assistant Professor<br>Charles M. Redenius, Ph.D., Assistant Professor<br>Gary C. Shaw, M.A., Assistant Professor

The Division of Arts and Sciences 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.

The Division of Arts and Sciences also offers the degree Bachelor of Arts, Social Sciences. The student who pursues this program may select an interdepartmental major in political science and any other discipline within the social sciences. (For further information, see Social Sciences.)

## REQUIREMENTS FOR THE BACHELOR OF ARTS, POLITICAL SCIENCE Political science majors are to:

1. Complete the requirements for the Bachelor of Arts degree.
2. Complete prerequisites to the major.
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 213. Comparative Government, 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
Students are strongly encouraged to take an introductory course in statistics.

## The Major

Three courses required in supporting fields as approved by major adviser.
Required courses in Political Science Units


PSCI 322. Modern Political Thought ..-.-.-.-.............................................................. 4


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## Political Science

Required courses in Political Science-continued ..... Units
PSCI 350. Basic Factors in American Politics ..... 4
Courses in political science as approved by major adviser ..... 16
Total ..... 36

## DEGREE MINOR IN POLITICAL SCIENCE

Twenty-four units approved by the minor adviser are required, including at 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 postgraduate work and receive approval 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 213. Comparative European Government (4)

Survey of governments and politics of France, Germany, Great Britain, and the Soviet Union. (Formerly 301)

## Uppar Division <br> COMPARATIVE POLITICAL SYSTEMS

## PSCI 311. Angio Political Systems (4)

Organization and operation of the government of Great Britain with particular reference to contemporary British political issues. Prerequisites: PSCI 202 and 213.

## PSCI 312. Comparative Politics (4)

Creates a frame of reference for the analysis of political systems in diverse social settings. Prerequisites: PSCI 202 and 213.

## PSCI 313. Totalitarian Political Systems (4)

An analysis of the essential functions characteristic of totalitarian political systems. Prerequisites: PSCI 202 and 213.

## PSCI 314. Politics in the Developing Areas (4)

Comparative analysis of nation-building as a political process. Prerequisites: PSCI 202 and 213.

PSCI 315. Comparative Politics of Asia (4)
Survey of governments and politics of Japan, China, India, and countries in Southeast Asia.

## PSCI 411. Modernization of China (4)

Evaluation of problems which China has encountered in the process of modernization: emphasis on change in political structure. Prerequisite: PSCI 213.

## POLITICAL THEORY

psCI 32t. Ancient and Medieval Political Thought (4)
Historical development of political philosophy from ancient times to seventeenth century. Prerequisites: PSCI 202 and 213.

## PSCI 322. Modern Political Thought (4)

Political thought from seventeenth century to present, with emphasis on such European philosophers as Hobbes, Locke, Rousseau, and Marx. Prerequisites: PSCI 202. and 213.

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. Prerequisites: PSCI 202 and 213.

PSCI 324. Problems in Political Theory
Analysis and discussion of selected issues and/or systems in Western political thought. Prerequisites: PSCI 202 and 213.

## PSCI 421. Political Change: A Study of Revalution (4)

A systematic and analytic study of revolution as one form of political change. Prerequisites: PSCI 202 and 213.

## INTERNATIONAL RELATIONS

## PSCI 331. International Relations (4)

Introduction to the elements of international politics.
PSCl 332. International Organization (4)
Analysis and evaluation of the development, functions, powers and future of international organization. Prerequisite: PSCI 202 and 213.

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. Prerequisites: PSCI 202 and 213.

## PSCI 335. International Law (4)

Problems, principles and development of international law. Prerequisites: PSCI 202 or equivalent.

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

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. Prerequisites: PSCI 202 and 213.

## Political Science

## PSCI 434. Soviet Forsign Policy (4)

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 213 or consent of instructor.

## AMERICAN POLITICS

## PSCI 350. Basic Factors in American Politics (4)

Organization and conduct of political life in the United States. Prerequisites: PSCI 202 and 213.

## PSCl 351. Political Parties (4)

Critical analysis of the political party as a part of the process of government: party organization and activities, campaign methods, and party responsibility. Prerequisites: PSCI 202 and 213.

## PSCI 352. Political Behavior (4)

American voting behavior, political attitude and opinion formation. Prerequisites: PSCI 202 and 213.

## 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.

## PSCI 354. Legislative Process (4)

Leadership, voting, and work groups in the legislature; legislative-executive relations. Prerequisites: PSCI 202 and 213.

## pSCI 361. 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.

## 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. Prerequisite: PSCI 202.

## PSCI 450. Constitutiorial 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.

## PSCI 496. Senior Seminar (4)

Investigation and analysis of questions with immediate relevancy to the problems of war and peace. Prerequisites: Senior standing or consent of instructor.

## PSCI 498. Individual 5tudy (3-4)

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

Lloyd H. Ahlem, Ed.D., Professor, Chairman<br>W. Mack Goldsmith, Ph.D., Associate Professor<br>Louise F. Bronson, Ph.D., Assistant Professor<br>Douglas A. Spanier, Ph.D., Assistant Professor<br>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, (2) plan to enter a profession or occupation in which a strong background in psychology is necessary, or (3) wish to prepare for graduate work in psychology.

The 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 36 upper division units, as approved by the major adviser.
4. Completion of a minor or a special program in lieu of a minor with approval of the major adviser.

## DEGRE MAJOR IN PSYCHOLOGY

## Prerequisites to the Major

PSYC 201. Introduction to Psychology, 4 units
Recommended courses in supporting fields:
BIOL 101. Principles of Biology, 5 units ZOOL 102. Principles of Zoology, 5 units ANTH 206. Cultural Anthropology, 4 units SOCL 201. Introduction to Sociology, 4 units
Required courses in supporting fields:
One of the following or equivalent, 4-5 units:
MATH 100, 101. Math for Liberal Arts Students I, II
MATH 110. College Algebra and Trigonometry MATH 120. Calculus I

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## Psychology

The Major ..... Units
PSYC 304. Experimental Methods in Psychology ..... 5
PSYC 305. Experimental Methods in Psychology II ..... 5
PSYC 490. Psychological Research Design ..... 5
PSYC 496. Senior Seminar ..... 4
Courses in psychology as approved by major adviser * ..... 17
Total ..... 36

## DEGREE MINOR IN PSYCHOLOGY

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

## 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. The first awarding of a master's degree in psychology is planned for June 1971. Students interested in this program should consult the Department of Psychology for complete details.

## COURSE DESCRIPTIONS

## Lower Division

## PSYC 201. Introduction to Psychology (A)

Scientific study of human behavior. This course or its equivalent is a prerequisite to all 300 and 400 level courses in psychology.

## PSYC 205. Applied Psychology

Application of psychological principles to medicine, law, advertising, salesmanship, religion, esthetics, business and personnel relations. Prerequisite: PSYC 201.

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## Upper Division

PSYC 300. Psychology of Marriage (4)
Psychological and ethical aspects of courtship, marriage and family life. Prerequisite: PSYC 201, junior standing or consent of instructor.

## PSYC 304. Experimental Methods in Psychology 1

(5)

Introduction to methodology in psychological research: psychophysical methods, scaling; application of psychological measurement in conjunction with laboratory experiments. (Lecture, 4 hours; laboratory, 3 hours) (Formerly 331). Prerequisites: PSYC 201, MATH 100 or equivalent, or consent of instructor (MATH 110 or equivalent preferred to MATH 100).

## PSYC 305. Experimental Methods in Psychology II (5)

Continuation of PSYC 304. Conditioning, learning, and group processes correlated with methodology on sampling distributions and techniques of inference. (Lecture, 4 hours; laboratory, 3 hours) Prerequisite: PSYC 304.

## PSYC 309. Comparative Psychology (4)

The comparative method in the study of psychological problems; evolution of behavior and its mechanisms from protozoa to man. Prerequisites: PSYC 201 and consent of instructor.

PSYC 310. Physiological Psychology (4)
Relationship of behavioral aspects to biological processes. Prerequisites: PSYC 201 and consent of instructor.

## PSYC 313. Human Development (4)

The psychology of development: infancy, childhood, adolescence, maturity and old age. Not open to students who have had PSYC 311. Prerequisite: PSYC 201.

## PSYC 321. Mental Hygienc (3)

Principles of mental hygiene; maintenance and enhancement of mental health. Theories of human adaptation. Prerequisite: PSYC 201.

## PSYC 402. Hisfory of Psychology (4)

Trends of thought and speculation from ancient times leading into the development of psychology as a separate discipline with its own issues, leaders, and schools. Prerequisites: PSYC 201 or equivalent, and three upper division psychology courses or consent of instructor.

## PSYC 413. Mental Deficiency (4)

The etiology, diagnosis and remediation of mental deficiency. Prerequisites: PSYC 311 or 313 or 321 or 431 or 432 or consent of instructor.

PSYC 431. Social Psychology (4)
Interpersonal relations, dynamics from the interpersonal point of view, social attitudes, language, society and culture, group dynamics. Prerequisite: PSYC 201.

## PSYC 432. Psychology of Personality (4)

Survey of theories of personality. Prerequisites: PSYC 201 and consent of instructor.

## PSYC 435. Abnormal Psychology (4)

Psychology of abnormal behavior: neurosis and psychosis, stressing etiology, symptoms, dynamics, diagnosis and treatment. (Formerly 421) Prerequisite: three courses in psychology.

## Psychology

## PSYC 441. Industrial Psychology (3)

Application of psychological principles to business and industry. Prerequisites: PSYC 304, 431, 432, or consent of instructor.

## PSYC 450. Theory and Research in Perception

Survey of classical and contemporary theories and problems in perception, together with the research approaches used to attack these problems. Consideration is given to areas that overlap perceptual questions such as sensation, cognition, perceptual learning, and personality. Prerequisites: PSYC 201 and one upper division psychology course. PSYC 304 and 310 are recommended.

## PSYC 461. Group Psychological Testing (4)

Basic concepts of psychological measurement as applied in construction, evaluation, and use of group-administered psychological tests. (Formerly 561) Prerequisite: PSYC 304.

PSYC 471. Theory and Research in Learning (4)
Contemporary theories of learning, major aspects of the learning process and a broad spectrum of learning situations, together with a description of perceptual, verbal, emotional, and motor habits. Prerequisites: PSYC 304 and 305.

## PSYC 477. Counseling Theory <br> (4)

Consideration of the major theories of counseling. Demonstrations and reviews of current literature. See EDUC 477. Prerequisite: PSYC 321 or 432 or 435.

PSYC 478. Psychology of Motivation (4)
Biological, social aspects of motivation; techniques of assessment; motivation as a variable in psychological research. Prerequisites: PSYC 201 and at least one upper division course in psychology.

## PSYC 481. Advanced Social Psychology (4)

Advanced study of social behavior. Perception, motivation, attitudes and values applied to critical social issues. Prerequisite: PSYC 431 or 432 or consent of instructor.

## PSYC 490. Psychological Research Design (4)

Application of basic design and inferential procedures in psychological research. Prerequisites: PSYC 304, 305, and senior standing.

## PSYC 496. Senior Seminar (4)

Review and discussion of current literature and general psychological topics. In addition, each student will report on an individual project. Course may be repeated for a total of 8 units. Prerequisite: PSYC 304 and senior standing.

PSYC 498. Individual Study (3-4)
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.

## Graduate

## PSYC 578. Advanced Counseling

(4)

Counseling practices including commonly used methods of psychotherapy practice in techniques of counseling. See EDUC 578. Prerequisite: PSYC 477.

PSYC 598. Individual Study (3-5)
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., Chairman, Division of Arts and Sciences
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 the central element of a liberal arts education or as an academic major for the 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, 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.
3. Anthropology 305.
4. Three courses from ANTH 306, 307, 308, 309, 335, 336, 402, or 421
B. Economics: One course from each of four of the following fields:
5. Economic Theory and Doctrine (ECON 330, 331, 400, 401, 402)
6. Public Finance and Fiscal Policy (ECON 454, 455, 456)
7. International Economics (ECON 405, 440, 441, 442, 443, 444)
8. Money and Banking (ECON 332, 333)
9. Labor Economics (ECON 410, 411)
C. History: Prerequisite: HIST 101, 102, 103 or equivalent. At least one course in each of the following fields:

United States History
California History
Asian History (HIST 380, 381, 389)
D. Political Science: Prerequisite: PSCI 202 and 213.

1. At least 3 of the following: PSCI $350,351,354,450$.
2. A fourth course from the above or PSCI 312 or 331.
E. Psychology: Prerequisite: PSYC 201.
3. PSYC 313.
4. At least 3 courses selected from the following:

PSYC 321, 413, 431, 432, 435.

## Social Sciences

F. Sociology: Prerequisite: SOCL 201.

1. Sociology 315.
2. At least 3 courses selected from the following: SOCL 301, 331, 361, 371, 372, 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, 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, political science, or economics. Anthropology, psychology, and sociology are not commonly taught in the secondary schools.

## Sociology

Antonio Donini, Ph.D., Associate Professor, Coordinator<br>Harriet C. Stull, Ph.D., Associate Professor<br>Irwin Sperber, M.A., Assistant Professor

The Division of Arts and Sciences 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 șelect 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 36 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 201. Introduction to Sociology, 4 units
ANTH 206. Introduction to Cultural Anthropology, 4 units
One other lower division sociology or anthropology course, 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

The Major Units
A minimum of 36 upper division units distributed as follows:
Social Organizations and institutions. ..... 8
Social Processes ..... 8
Theory and Methodology ..... 8
$\dagger$ Electives from Sociology ..... 12
Total ..... 36

## DEGREE 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

## Lower Division

SOCL 201. Introduction to Sociology (4)
Fundamental concepts, methods, and empirical findings of sociology. This course or its equivalent is a prerequisite for 300 and 400 level courses.

## SOCL 221. American Society <br> (4)

Analysis of American society; major structural characteristics and their functions; major changes, trends, and contemporary social problems examined in their relation to institutional structures. (Formerly 321) Prerequisites: SOCL 201 or consent of instructor.

## Upper Division

## SOCIAL ORGANIZATION AND INSTITUTIONS

## SOCL 301. Race and Ethnic Group Relations (4)

The sociology of minority group relations; with attention to specific racial, ethnic, and religious minorities. Special emphasis on the status of the American Negro minority. Prerequisite: SOCL 201 or consent of instructor.

## SOCL 315. The Family (4)

Social structure and changing functions of the modern family. Social interaction. Recent research and theoretical development in the sociology of the family. Prerequisite: SOCL 201 or consent of instructor.

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## Sociology

## SOCL 331. Social Stratification <br> (4)

Origins, characteristics, and functions of social classes and castes; emphasis on recent research and theoretical developments. Prerequisites: SOCL 201 or consent of instructor.

## SOCL 361. The Small Group (4)

Structure and dynamics of the small human group, with emphasis on modern theory, research methods and empirical findings. Prerequisite: SOCL 201 or consent of instructor.

## SOCL 371 . Community Organization (4)

Social structure of the community, with special attention to the contemporary U.S. community. Formal and informal power structure, social stratification, and communication network. Attention to recent research. Prerequisite: SOCL 201 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 201.

## SOCL 432. Sociology of Religion <br> (4)

Sociological analysis of religious belief and behavior, classic theories of religion, recent research methods and empirical findings. Prerequisite: SOCL 201 or consent of instructor.

SOCL 460. Industrial Sociology (4)
A consideration of the industrial institution in some detail with emphasis on the special sociological concomitants of industrialization in any society.

## SOCIAL PROCESSES

## 5OCL 320. Social Change (4)

Sociology and social 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 201 or consent of instructor.

## SOCL 342. Population Theory and Research (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 201 or consent of instructor.

SOCL 35 1. 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 201 or consent of instructor.

## SOCL 424. Social Deviance and Control (4)

Examination of the normative structure and control mechanisms of the social system. Theories of deviant behavior, and relevant modern research. Prerequisite: SOCL 201 or consent of instructor.

## SOCL 426. The Sociology of Mental Illness (4)

Survey of alternative approaches to the study and treatment of mental illness and the processes of recovery; use of historical and historical perspectives to dcvelop a theory of human personality. Prerequisite: SOCL 201 or consent of instructor.

## Sociology

## 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: SOCL 201 or consent of instructor.

## THEORY AND METHODOLOGY

## SOCL 401. Sociological Research (4)

Introduction to research design and methodology in sociology: the hypothesis, theory, types of research, historical research, experiment, survey, statistical elements for sociology, questionnaire and interview studies, data analysis and evaluation, final results and written report. Prerequisite: 16 upper division units of sociology.

## SOCL 441. Modern Sociological Theory <br> (4)

Major contributions to systematic sociological theory from Durkheim to Parsons. Theories of social structure and social change. Aspects of theory-building. Prerequisite: SOCL 201 or 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 (3-4)

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.

## Faculty

Capurso, Alexander (1963) President; Professor of Humanities and Fine Arts Pennsylvania State University, 1930-31; Temple University, 1931-32; B.S., 1933; M.A., 1934; Ph.D., 1938, University of Kentucky; Doctor of Music (Honoris Causa), 1957, Philadelphia Musical Academy; Doctor of Laws (Honoris Causa), 1968, Oklahoma City University
Ahiem, 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
Aubert, Edward J. (1961) _-_ Director of Admissions and Records B.S., 1956, University of San Francisco; M.B.A., 1961, University of California, Berkeley

Balbo, Frank C. (1964) $\qquad$
 Business Manager B.S., 1937, University of California, Berkeley

Barrett, Thomas P. (1961) .- Associate Professor of Business Administration B.A., 1954, Northeastern University; M.A., 1958, Michigan State University

Beamish, Jerome J. (1964) ........................ Associate Dean, Counseling and Testing B.A., 1957, Sir George Williams University; M.A., 1958; Ph.D., 1962, Columbia University
Bell, Jo P. (1968)
Acquisitions Librarian B.A., 1964; M.A., 1966, University of Minnesota

Bennett, Agnes L. (1961) $\qquad$ Head Catalog Librarian A.B., 1951, Luther College; A.M.L.S., 1952, University of Michigan
*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
Bowers, Alfred W. (1967) $\qquad$ Professor of Anthropology B.S., 1928, Beloit College; M.A., 1929, Ph.D., 1948, University of Chicago

Bretz, Richard D. (1968) $\qquad$ Assistant Professor of English B.A., 1960 Cornell College; M.A., 1964, Ohio University

Brewer, Joseph E. .-. Associate Dean, Curriculum, Associate Professor of English B.A., 1947, University of Akron; M.A., 1948, University of Cincinnati; Ph.D., 1954, Case Western Reserve University
Brill, Leonard (1968) .- $\qquad$ -.. . ........ $\qquad$ Assistant Professor of English B.S., 1957, Brooklyn College; M.A., 1962; Ph.D., 1968, University of Minnesota

Bronson, Louise F. (1968) Assistant Professor of Psychology B.A., 1945, University of Rochester; M.A., 1951, University of Florida; Ph.D., 1966, University of Arizona
Brown, Judith A. (1969). ... ...... ... Assistant Professor of Biological Sciences B.A., 1966, Whittier College; M.S., 1969, Northwestern University

Bruggman, Joseph E. (1960) _.............................................. of Student Affairs; Professor of Music B.A., 1941, San Jose State College; M.A., 1947; Ed.D., 1949, Columbia University

[^28]
## Faculty

Camajani, Giovanni (1964). 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
Caswell, John E. (1960)
Professor of History
B.A., 1934; M.A., 1937, University of Oregon; Ph.D., 1952, Sanford 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
 B.S., 1950, New Mexico State University; M.A., 1956, Eastern New Mexico University; Ed.D., 1961, University of New Mexico
Cole, James C. (1964) ......._-_ Professor of Education A.B., 1947; M.A., 1948, Stanford University; Ed.D., 1956, Teachers College Columbia University
Conant, Richard D. (1969) .................Assistant Professor of Physical Education A.B., 1955, Occidental College; M.S., 1956, University of California at Los Angeles
Corbin, Joseph W. (1968) ..............Administrative Assistant to Dean of College B.S., 1960, Geneva College; M.Ed., 1961, University of Pittsburg; Ed.D., 1967, University of the 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 C. (1969) _-_-_-_ Assistant Professor of Economics B.S., 1960; M.A., 1962, University of Nebraska
 Professor of Management A.B., 1942, Loyola College; Ed.M., 1951, Boston University

Dean, Britten (1967)
Assistant Professor of History A.B., 1957, Brown University; M.A., 1962, Columbia University

Donini, Antonio (1966) ............................ Prociate Profsor of Sociology A.B., 1941, Institute of Classical Literature and Humanities, Córdoba, Argentina; M.A., 1945, Faculty of Philosophy, San Miguel, Buenos Aires, Argentina; M.S., So., 1957; Ph.D., 1960, Institute of Social Sciences in the Gregorian University, Rome, Italy
Eichensehr, Frank C. (1969) $\qquad$ Assistant Professor of Psychology B.S., 1964, Ohio State University; M.A., 1968, University of Minnesota

Engdahl, Ronald V. (1968) Personnel Officer
Farnsworth, Richard B. (1967) .... ........ Associate Dean, Educational Services and Summer Session, Lecturer in Education B.A., 1935, University of Montana; M.A., 1942, Stanford University

Farrar, Charles R. (1960) $\qquad$ Professor of Education B.A., 1949; M.A., 1950, Humboldt State College; Ed.D., 1963, Stanford University

Fealk, Martin N. (1969) $\qquad$ Assistant Professor of Mathematics B.S., 1963; M.A., 1965, Wayne State University

Feldman, Louis A. (1968) ___Assistant Professor of Mathematics B.S., 1963, University of Michigan; M.A., 1965; Ph.D., 1969, University of California, Berkeley
Fisher, Richard G. (1967) ...-_ Counselor, Financial Aids/Foreign Students B.A., 1963, University of Dubuque; M.A., 1965, University of Iowa

Foster, John L. (1964) _-_Supervisor of Buildings and Grounds B.S., 1934, U.S. Naval Academy

Gabrielson, Orlen N. (1968) $\qquad$ Catalog Librarian B.A., 1967, Stanislaus State College; M.L.S., 1968, University of California, Berkeley
 A.B., 1947, Humboldt State College; M.S., 1950, University of Southern California
Ghiglieri, Sylvia M. (1961)
Assistant Professor of Music B.M., 1954, Dominican College; Diploma, Music Academy of the West at Santa Barbara, 1954; Diploma Conservatoire de la Musique at Fontainebleau, France, 1955; M.M., 1960, University of the Pacific
Goldman, Arnold L. (1969) $\qquad$ Assistant Professor of English B.A., 1954, University of Connecticut; M.A., 1958, University of Minnesota

Goldsmith, W. Mack (1966)
Associate Professor of Psychology A.B., 1957, Ripon College; Ph.D., 1966, Cornell University

Goodwin, James M. (1968)
Assistant Professor of Physics B.S., 1958, Pennsylvania State University; M.S., 1964, University of Washington; Ph.D., 1968, University of Washington
Grant, Curtis R. (1966) $\qquad$ Associate Professor of History A.B., 1960, Stanford University; M.A., 1961, University of California, Berkeley; Ph.D., 1968, Stanford University
Graves, Jack A. (1969) $\qquad$ Assistant Professor of Education B.A., 1953, Arizona State University; M.A., 1961; Ed.D., 1968, University of California, Berkeley
Grillos, Steve J. (1965)
Professor of Botany B.S., 1951, University of Denver; M.S., 1952, University of Wyoming; Ph.D., 1956, Oregon State College
Habashi, Zaki I. (1965) $\qquad$ Associate Professor of Physical Education B.S., 1944, Higher Institute of Physical Education, Cairo, U.A.R.; M.A., 1957, University of Wyoming; L.L.B., 1962, University of Alexandria, U.A.R.; Ed.D., 1961, University of Colorado
Hackwell, Glenn A. (1961)
Associate Professor of Biology B.S., 1957; M.S., 1958, Brigham Young University; Ph.D., 1967, Oregon State University
Hamilton, Hobart G. (1968)


Assistant Professor of Chemistry B.S., 1961, University of Texas; M.S., 1963; Ph.D., 1967, New Mexico State University

## Faculty

Hanny, James K. (1966) Associate Professor of Physical Education B.A., 1949; M.A., 1957, College of Pacific
 B.A., 1955; M.A., 1957, University of the Pacific; Ph.D., 1967, Oregon State University
*Harris, Janet C. (1967) -.......................................... B.S., 1965; M.S., 1966, University of California, Los Angeles

Harrison, Francis B. (1968) _-_-_Administrative Assistant to Business Manager B.S., 1938, U.S. Military Academy; M.B.A., 1953, Syracuse University

Ho, Hsiu-hwang (1969) Assistant Professor of Philosophy B.A., 1961; M.A., 1965, National Taiwan University

Holder, Frank B. (1965) Associate Professor of History B.A., 1949; M.A., 1951; Ph.D., 1962, University of California, Berkeley
 B.F.A., 1959, University of New Mexico; M.A., 1966, San Francisco State College

Hultgren, Glen O. (1968) Assistant Professor of Chemistry B.S., 1958, University of California, Berkeley; Ph.D., 1966, California Institute of Technology
Jacobs, Laurence H. (1967) ..._ Assistant Professor of English B.A., 1963; M.A., 1964, University of California, Berkeley

Javaher, James N. (1961) $\qquad$ Professor of Mathematics L.L.B., 1946, University of Tehran; A.B., 1950, San Jose State College; M.A., 1952, University of California, Berkeley; B.S., 1954, Stanford University; Doctorat d'Université, Faculté des Sciences, 1960, University of Paris, Sorbonne
Jensen, James P. (1961) $\qquad$ Associate Professor of English B.A., 1953; M.A., 1957; Ph.D., 1964, University of Washington

Johnson, Lola V. (1960) Assistant Professor of English B.A., 1956; M.A., 1959, University of the Pacific

Johnson, E. Lorraine (1960) ...- Administrative Assistant to the President C.P.S., 1955; B.A., 1966, Stanislaus State College

Johnston, Staten M. (1967)
Accounting Officer
Jones, Richard V. (1966) Associate Professor of Education B.A., 1956; M.A., 1956, Stanford University; Ed.D., 1966, University of California, Berkeley
Kalb, Klaus H. (1967) Associate Professor of Economics Undergraduate study in Germany; M.Sc., 1961, Kansas State University; Ph.D., 1964, Ohio State University
Kellogg, Susan E. (1969) $\qquad$ Assistant Professor of Audiology B.A., 1964, Syracuse University; M.S., 1965, University of Wisconsin, Madison

Kottke, Frederick E. (1963) $\qquad$ Professor of Economics B.S., 1952, Pepperdine College; M.A., 1957; Ph.D., 1960, University of Southern California

[^29]$\qquad$ Special Assistant-Student Relations B.A., 1966, University of Michigan; LL.B. (J.D.), 1969, University of Michigan Law School
Lucas, Richard S. (1969) $\qquad$ Assistant Professor of Speech B.A., 1966; M.A., 1968, Sacramento State College

Magnelia, Paul F. (1966) Associate Professor of Political Science B.A., 1955, Washington University; M.A., 1960, University of the Americas; Ph.D., 1967, University of Geneva
Maria, Narendra L. (1968) Associate Professor of Mathematics B.A., 1948; M.A., 1949, Punjab University, India; Ph.D., 1968, University of California, Berkeley
Mayol, Perpetuo S. (1968) Assistant Professor of Biological Sciences B.S.A., 1957, University of the Philippines; M.S., 1965, Oklahoma State University; Ph.D., 1968, Purdue University
McClintock, William F. (1963) Coordinator of Credential Programs,
Professor of Education A.B., 1937, Occidental College; M.A., 1949; Ph.D., 1957, Claremont Graduate School
McDowell, Gerald L. (1969)
Assistant Professor of Art B.A., 1965; M.A., 1966, University of California, Berkeley

McManus, Betty D. (1965) ........................................ Officer B.A., 1948, University of Miami; M.Ed., 1960, Xavier University

Merkel, Rudolph B. (1967) ................................. A.B., 1949, Sacramento State College; M.A., 1957; Ph.D., 1964, University of California, Davis
*Moore, Stanley W. (1967) ...-- .--- Assistant Professor of Political Science B.A., 1959, Wheaton College

Moriconi, R. J. (1968) $\qquad$ Assistant Professor of Education A.B., 1955; M.A., 1957, Stanford University; Ed.D., 1967, University of Florida

Neal, Bobby J. (1966)
Assistant Professor of Biology B.A., 1954, San Jose State College; M.A., 1957; Ph.D., 1964, University of Arizona
Nickerson, Melvin R. (1966) .............................. A.B., 1956; A.M., 1960, University of Pacific; Ph.D., 1966, University of Michigan
Norton, Max C. (1961) ... ....Professor of Speech and Communication Science B.A., 1951; M.A., 1955, University of the Pacific; Ph.D., 1962, University of Denver
O'Brien, Audrey V. (1966) Reference Librarian B.A., 1945, Hofstra University; M.S., 1965, Long Island University
 A.B., 1940, San Francisco State College; M.B.A., 1947; Ed.D., 1951, Stanford University

[^30]
## Faculty

Parker, J. Carlyle (1963) ... Public Services Librarian A.B., 1957, Brigham Young University; M.L.S., 1958, University of California, Berkeley
Parton, Ralf (1963)
Associate Professor of Art Diploma, 1953, Albright Art School; B.S., 1954, New York State University College at Buffalo; M.A., 1955, Columbia University
Piskoti, James (1969)
Assistant Professor of Art B.S., 1967, University of Michigan; M.F.A., 1969, Yale University

Pitman, Leon S. (1969) ... .................................. B.S., 1965, Brigham Young University; M.A., 1966, University of Oklahoma

Platt, James H. (1966)
...Associate Professor of Speech Pathology and Audiology B.A., 1940, Bowling Green State University; M.A., 1946, State University of Iowa; Ph.D., 1954, University of Denver
Quinley, C. W.. Jr. (1962) ......... Associate Director of Admissions and Records A.B., 1950, San Jose State College

Rasmussen, John Peter (1962) ................................... B.A., 1955, Fresno State College; M.A., 1959; Ph.D., 1962, Stanford University

Rau, Catherine D. (1965)
Professor of Philosophy A.B., 1925; M.A., 1939; Ph.D., 1945, University of California, Berkeley

Redenius, Charles M. (1969) _-..................ssistant Professor of Political Science B.A., 1965, Western Michigan University; M.A., 1965; Ph.D., 1968, University of Michigan
Richardson, Lowell G. (1964) .............Associate Professor of Foreign Languages B.A., 1941; M.A., 1947, University of Wisconsin; 1967, Ph.D., Universidad Inter-America, Saltillo, Mexico
Riddle, Jean H. (1967) $\qquad$ Assistant Professor of English B.A., 1946; M.A., 1961, Ohio Wesleyan University
Ross, Richard E. (1969) _-_-.............................sistant Professor of Anthropology B.A., 1959, University of Colorado; M.A., 1963, University of Oregon
 A.B., 1942; M.A., 1944, University of Chicago; Ph.D., 1953, University of Southern California
Rushdoony, Haig A. (1961) Professor of Education A.B., 1949; M.A., 1953, San Francisco State College; Ed.D., 1961, University of California, Berkeley
Schmidt, Nancy J. (1968) $\qquad$ Assistant Professor of Anthropology B.A., 1958, Oberlin College; M.A., 1961, University of Minnesota; Ph.D., 1965, Northwestern University
Schwarcz, Ervin H. (1967)
Associate Professor of Physics B.S., 1945, Ohio State University; M.S., 1948; Ph.D., 1955, University of Michigan
 B.A., 1966, Utah State University; M.A., 1967, Michigan State University

Smith, Priscilla R. (1968) $\qquad$ Associate Professor of Education A.B., 1941, John B. Stetson University; M.Ed., 1955, National College of Education; Ed.D., 1963, University of Denver

Smith, Robert R. (1969) $\qquad$ Assistant Professor of History A.B., 1960, Wayne State University; M.A., 1963, University of California, Los Angeles
Smurr, J. W. (1967)
Professor of History
B.A., 1950; M.A., 1951, University of Montana; Ph.D., 1960, Indiana University

Spanier, Douglas A. (1969)
Assistant Professor of Psychology B.A., 1961, Western Washington State College; M.A., 1965; Ph.D., 1968, University of Nebraska
Sperber, Irwin (1969)
Assistant Professor of Sociology B.A., 1959, Brooklyn College; M.A., 1960, City University of New York

Stenzel, David Bentheim (1961) $\qquad$ Professor of History B.S., 1951, Georgetown University; Diploma, 1950, University of Vienna; M.A., 1954; Ph.D., 1957, University of California, Berkeley
Stull, Harriet C. (1967)
Associate Professor of Sociology B.A., 1935, University of Iowa; M.A., 1937, Colorado College of Education; Ph.D., 1947, Cornell University
Swain, Lorna M. (1961) _-_ Associate Professor of Education A.B., 1937, University of California, Berkeley; M.A., 1954, Humboldt State College; Ed.D., 1960, Stanford University
Taylor, Douglas H. (1969) $\qquad$ Associate Professor of English B.A., 1960, Whiman College; M.A., 1963, University of Washington; Ph.D., 1967, University of California, Davis
Thompson, Evan M. (1965) $\qquad$ Associate Professor of Chemistry B.A., 1960; Ph.D., 1964, Brigham Young University

Thompson, Lloyd R. (1968)
Assistant Professor of Education B.S., 1952, University of Minnesota; M.A., 1957, Long Beach State College; M.Ed., 1959; Ed.D., 1966, University of Southern California

Tuman, Vladimir S. (1965)
Professor of Physics B.S., 1948, Birmingham University of England; D.I.C., 1949, Imperial College of London; Ph.D., 1964, Stanford University
Tullis, Garner H. (1969) .__ Assistant Professor of Fine Art B.F.A., 1964, University of Pennsylvania; M.A., 1967, Stanford University

VanderMolen, Ronald Jay (1969) _-_ Assistant Professor of History B.A., 1961, Calvin College; M.A., 1962, DePaul University
 B.A., 1958; M.A., 1966, University of California, Davis

Wating, Thomas C. (1967) $\qquad$ Associate Dean of Activities and Housing B.A., 1949; M.Ed., 1955, Drury College; Ph.D., 1967, University of Denver

White, Thomas J. (1960) $\qquad$ Business Services Officer A.B., 1950, San Diego State College

Williams, Jack W. (1969) Assistant Professor of English B.A., 1962; M.A., 1966, University of Colorado

Wilson, Margaret L. (1968) $\qquad$ Instructor of Foreign Languages A.B., 1966, Stanislaus State College; M.A., 1968, University of California, Davis

## Faculty

Wisler, Gene C. (1963)
Professor of Music
A.B., 1947, San Jose State College; M.A., 1950, University of Minnesota; Ed.D., 1956, University of Oregon
 B.S.C., 1948, Loyola University; M.B.A., 1951, University of California, Berkeley; C.P.A., 1944, University of Illinois; C.P.A., 1948, State of California

Yu, George H. (1965) ._Assistant Professor of Foreign Language B.A., 1924, University L'Aurore, Shanghai, China; M.A., 1928, Franco-Chinese University, Peking, China; Ph.D., 1935, University of Lyons, France; Ph.D., 1939, University of Warsaw, Poland

## NEW APPOINTMENTS

Carter, Dora L. (1969) .-................... Assistant Professor of Physical Education B.S., 1960, University of Oklahoma; M.S., 1964, University of Colorado

Chang, Young H. (1967)
Assistant Professor of Political Science B.A., 1960; M.A., 1962, Kyung Hee University; M.I.S., 1965; Ph.D., 1968, Claremont Graduate School
Christensen, Hugh R. (1969)
Placement Officer
B.A., 1964, Colorado State College

Glenday, David (1969) $\qquad$ Associate Professor of Education A.B., 1950, State University of New York; M.A., 1951; Ed.D., 1961, Teachers College, Columbia University
Gonzales, Norbert M. (1969)
Counselor B.A.; M.A., 1969, Chico State College
 B.F.A., 1966, Philadelphia College of Art; M.A., 1969, University of New Mexico

Academic Advisement, 31
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## NOTES

## NOTES





[^0]:    * Classes are not scheduled to meet during the Reading Period. This is a week 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 minimum eligibility index is 3072 for the SAT (or 741 for the ACT'). It is computed by multiplying grade point average by 800 and adding it to the total SAT score (or by multiplying grade point average by 200 and adding it to 10 times the composite ACI score).

[^2]:    * Fee is subject to change upon notice from the insuring company.

[^3]:    * Not given at Stanislaus State College in these months.

[^4]:    * 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.
    $\dagger$ Course must be taken three consecutive quarters for credit to be applicable.

[^5]:    ** Students may satisfy subject requirements in United States History and Constitution, Cali fornia State and Local Government, and in oral expression by passing examinations in these fields.

    * Exceptions to the Health and Physical Education requirement are as follows:

    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 field or fields specifically designated by the Dean of the College in lieu of the required health course.
    2. A student may be exempted by the Dean of the College from the physical education requirements if the student is over 25 years of age. Appropriate units in other fields may be substituted in order to meet the requirements of graduation.
[^6]:    * 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.

[^7]:    * 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.

[^8]:    * 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.

[^9]:    * 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.

[^10]:    $\dagger$ 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 a degree minor in the physical sciences.

[^11]:    *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.

[^12]:    * These requirements are deemed minimal; an adviser may require additional academic or professional work of a candidate as individual needs may require.
    $\ddagger$ For graduate students from other accredited institutions, the California State Board of Education accepts majors in addition to those listed above. All majors except physical education qualify the elementary credential holder to teach all subjects in the self-contained classroom. See Credentials Office for further clarification of physical education major.

[^13]:    *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).

[^14]:    * As these majors and minors are not commonly taught in the secondary schools, students should consult with the Secondary Coordinator 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.

[^15]:    * On sabbatical leave 1969-70.

[^16]:    * Specific seminar titles will be announced in the Quarterly Class Schedules.

[^17]:    * 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.

[^18]:    * 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.

[^19]:    GERMAN
    Lower Division
    GERM 101. Elementary German 1 (4)
    Beginning German, audio-lingual approach. Prerequisite: None.

[^20]:    * Students must earn a grade of $C$ 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.

[^21]:    * On leave of absence 1969-70.
    $\dagger$ 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.

[^22]:    * 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 quarter of intercollegiate athletics.

[^23]:    PHYS 472. Introduction to Theorefical Physics II (3)
    Continuation of PHYS 471. Prerequisite: PHYS 471.

[^24]:    * On leave of absence 1969-70.

[^25]:    * On sabbatical leave Fall 1969.

[^26]:    * SOCL 361 The Small Group, may be applied to the major program if it is not included in a minor in sociology or anthropology.
    $\dagger$ 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.

[^27]:    * 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 431, 432 and 441, 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.

[^28]:    * On sabbatical leave 1969-70.

[^29]:    * On leave of absence 1969-70.

[^30]:    * On leave of absence 1969-70.

