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CALIFORNIA STATE UNIVERSITY
SAN BERNARDINO

BULLETIN.

1991-92







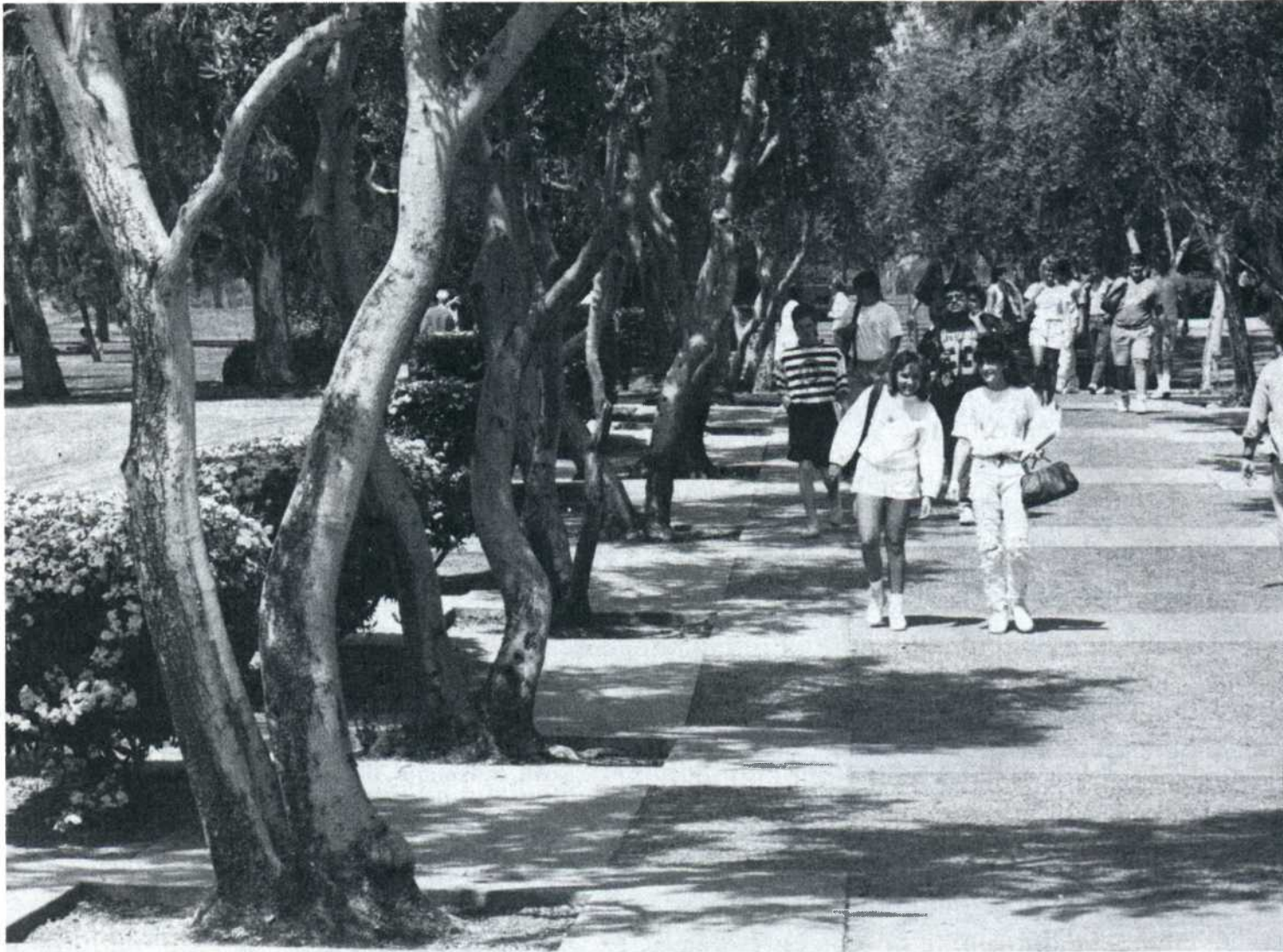
Welcome to California State University, San Bernardino.

Your interest in this University may lead you to one of the most important decisions of your life: choosing the right university for you. At Cal State, San Bernardino, you can expect a quality education backed by an outstanding faculty and an emphasis on small classes. Our students also benefit from a wide variety of cultural, athletic and social events that enhance personal and intellectual development.

You will get a sense of the academic programs, student life and other services offered at Cal State, San Bernardino by reading this catalogue. To fully experience the qualities of our campus, you are invited to visit the University and take a tour.

I look forward to personally welcoming you to our University.

Anthony H. Evans, President
California State University,
San Bernardino



Contents



This Catalog represents the University's course descriptions and requirements at the undergraduate and graduate levels. California State University, San Bernardino reserves the right to revise Catalog provisions in accordance with official actions of the Board of Trustees of the California State University and other governing bodies. Students are advised to consult the appropriate department, school or office for current information. Supplementary bulletins contain additional information about extended education and summer programs. The 1991-92 Catalog may be purchased at the Coyote Bookstore, California State University, San Bernardino, 5500 University Parkway, San Bernardino, CA 92407.

Inquiries about admission to the University should be directed to the Director of Admissions, (714) 880-5200, California State University, San Bernardino, 5500 University Parkway, San Bernardino, CA 92407.

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BULLETIN

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Calendar 1991-92

FALL TERM 1991

Sept. 17	Beginning of academic year
Sept. 17, 18	Schedule adjustments for early registrants
Sept. 17-20	Advising for late registration
Sept. 19, 20	Walk-through registration
Sept. 23, 24, 26- Oct. 16	Late registration period and change of program
Sept. 25	Dead day, no late registration or change of program
Sept. 26	Classes begin (Saturday classes begin September 28)
Sept. 26-Oct. 2	Regular add period
Sept. 26-Oct. 10	Drop period for fee refund
Sept. 28	Saturday classes begin
Oct. 1	Last day to file or refile graduation check for March graduation without payment of late fee
Oct. 3-16	Late add period
Oct. 16	Last day to drop classes without record; late add and late registration period ends
Oct. 31, Nov. 1, 4-8, 11	Priority I advising and early registration for winter term, 1992
Nov. 28-30	Thanksgiving recess
Dec. 6	Last day of classes (Saturday classes end Dec. 7)
Dec. 9-14	Final examinations (exams begin at 6 p.m., Dec. 9)
Dec. 13	Last day to file or refile graduation check for June and September graduation without payment of late fee
Dec. 16	Grades due; end of term
Dec. 17-Jan. 1	Academic recess

WINTER TERM 1992

Jan. 2	Beginning of winter term; Schedule adjustments for early registrants
Jan. 2-3	Walk-through registration
Jan. 4	Saturday classes begin
Jan. 6	Classes begin (Saturday classes begin Jan. 4)
Jan. 6-27	Late registration period
Jan. 6-10	Regular add period
Jan. 6-21	Drop period for fee refund
Jan. 18, 20	Martin Luther King, Jr. birthday recess
Jan. 13-27	Late add period
Jan. 27	Last day to drop classes without record; late add and late registration period ends
Feb. 5-7, 10-14	Priority I advising and early registration for spring term, 1992
March 6	Last day to file or refile graduation check for December graduation without late fee
March 16	Last day of classes (Saturday classes end March 14)
March 17-21	Final examinations

March 23 Grades due; end of term
 March 24-25 Academic recess

SPRING TERM 1992
 March 25 Schedule adjustments for early registrants
 March 26 Beginning of academic term
 March 26, 27 Walk-through registration
 March 28 Saturday classes begin
 March 30 Classes begin (Saturday classes begin March 28)

March 30-April 17 Late registration period
 March 30-April 3 Regular add period
 March 30-April 13 Drop period for fee refund
 April 6-17 Late add period
 April 17 Last day to drop classes without record; late add and late registration period ends

*May 4-8, 11-13 Priority I advising and early registration for fall term, 1992

May 23, 25 Memorial Day (University closed)

June 8 Last day of classes (Saturday classes end June 6)

June 9-13 Final examinations
 June 13 Commencement
 June 15 Grades due; end of term

SUMMER SESSIONS 1992

June 16 Registration for all sessions
 June 18 Classes begin, Sessions I, IV and V

July 3 Independence Day holiday (University closed)

July 23-24, 27-29 Registration, Sessions II and III

July 23 Last day of classes, Session I
 July 24, 27-28 Final examinations, Session I
 July 30 Classes begin, Sessions II and III

Aug. 13 Last day of classes, Session IV
 Aug. 14, 17-18 Final examinations, Session IV
 Aug. 19 Last day of classes, Session II
 Aug. 20-21 Final examinations, Session II
 Aug. 27 Last day of classes, Session V
 Aug. 28, 31, Sept. 1 Final examinations, Session V
 Sept. 4 Last day of classes, Session III
 Sept. 7 Labor Day holiday (University closed)

Sept. 8-10 Final examinations, Session III

FALL TERM 1992

Sept. 15 Beginning of academic year
 Sept. 24 Classes begin (Saturday classes begin Sept. 26)

Sept. 24, 25, 28-
 Oct. 14 Change of program
 Sept. 24-30 Regular add period begins
 Sept. 24-Oct. 8 Drop period for fee refund
 Sept. 26 Saturday classes begin
 Sept. 29 Last day to file or refile graduation check for March graduation without payment of late fee

Oct. 1-14 Late add period
 Oct. 14 Last day to drop classes without record; late add and late registration period ends

Nov. 26-28 Thanksgiving recess
 Dec. 4 Last day of classes (Saturday classes end Dec. 5)

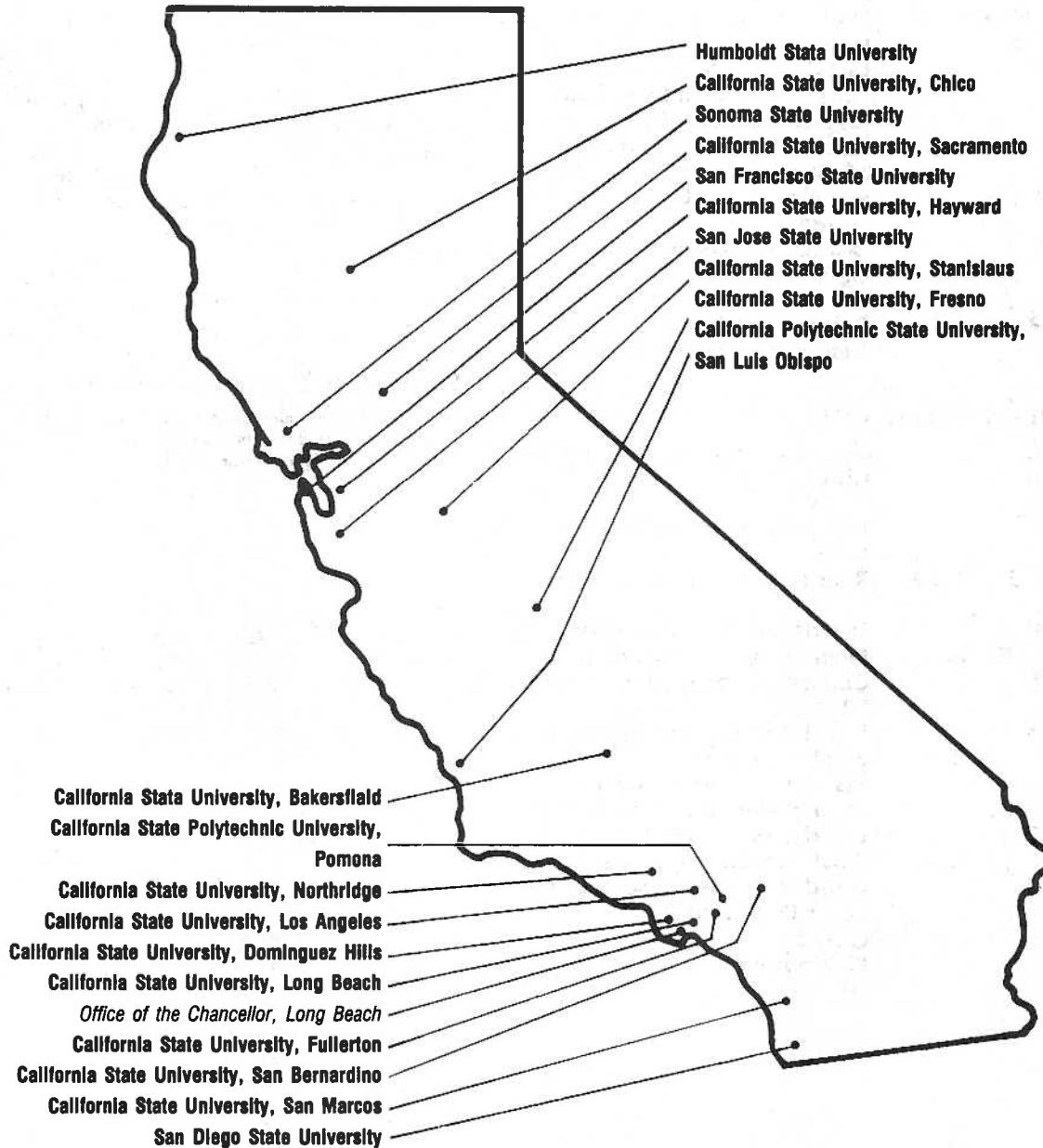
Dec. 7-12 Final examinations (exams begin at 6:00 p.m. Dec. 7)
 Dec. 11 Last day to file or refile graduation check for June or September graduation without payment of late fee

Dec. 14 Grades due; end of term
 Dec. 15-Jan. 3 Academic recess

For a more detailed calendar of academic dates and deadlines, see the quarterly class schedule. The above calendar is not intended to be construed as an employee work calendar.

* Touch-Tone Registration to be implemented Fall Term 1992. At this time, dates for advising and registration for Fall 1992 have not been established.

THE CALIFORNIA STATE UNIVERSITY



The California State University

The individual California State Colleges were brought together as a system by the Donahoe Higher Education Act of 1960. In 1972 the system became The California State University and Colleges and in 1982 the system became The California State University. Today all 20 campuses have the title "university."

The oldest campus, San Jose State University, was founded as a normal school in 1857 and became the first institution of public higher education in California. The newest campus, California State University, San Marcos, began admitting students in fall 1990.

Responsibility for The California State University is vested in the Board of Trustees, whose members are appointed by the governor. The trustees appoint the chancellor, who is the chief executive officer of the system, and the presidents, who are the chief executive officers on the respective campuses.

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

Academic excellence has been achieved by The California State University through a distinguished faculty, whose primary responsibility is superior teaching. While each campus in the system has its own unique geographic and curricular character, all campuses, as multipurpose institutions, offer undergraduate and graduate instruction for professional and occupational goals as well as broad liberal education. All of the campuses require for graduation a basic program of "general education-breadth requirements" regardless of the type of bachelor's degree or major field selected by the student.

The CSU offers more than 1,500 bachelor's and master's degree programs in some 200 subject areas. Many of these programs are offered so that students can complete all upper-division and graduate requirements by part-time late afternoon and evening study. In addition, a variety of teaching and school service credential programs are available. A limited number of doctoral degrees are offered jointly with the University of California and with private institutions in California.

System enrollments total over 360,000 students, who are taught by about 20,500 faculty. Last year the system awarded more than 50 percent of the bachelor's degrees and 30 percent of the master's degrees granted in California. More than 1.2 million persons have been graduated from the 19 campuses since 1960.

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State Capitol, Sacramento 95814

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Speaker of the Assembly
State Capitol, Sacramento 95814

The Honorable Bill Honig

State Superintendent of Public Instruction
721 Capitol Mall, Sacramento 95814

Dr. Ellis E. McCune

Acting Chancellor of The California State
University
400 Golden Shore, Long Beach 90802-4275

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Correspondence with Trustees should be sent:

c/o Trustees Secretariat

The California State University
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Long Beach, CA 90802-4275

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Chair: Mr. William D. Campbell

Vice Chair: Mr. J. Gary Shansby

Secretary-Treasurer: Acting Chancellor Ellis E.
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(213) 590-5506

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Vice Chancellor, University Affairs

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Bakersfield, California 93311-1099
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Chico, California 95929
Dr. Robin S. Wilson, President
(916) 898-6116

California State University, Dominguez Hills

Carson, California 90747
Dr. Robert C. Detweiler, President
(213) 674-3300

California State University, Fresno

Shaw and Cedar Avenues
Fresno, California 93740
Dr. Harold H. Haak, President
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Fullerton, California 92634
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Northridge, California 91330
Dr. James W. Cleary, President
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3801 West Temple Avenue
Pomona, California 91768
Dr. Hugh O. La Bounty, President
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Sacramento, California 95819
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San Luis Obispo, California 93407
Dr. Warren J. Baker, President
(805) 756-1111

California State University, San Marcos

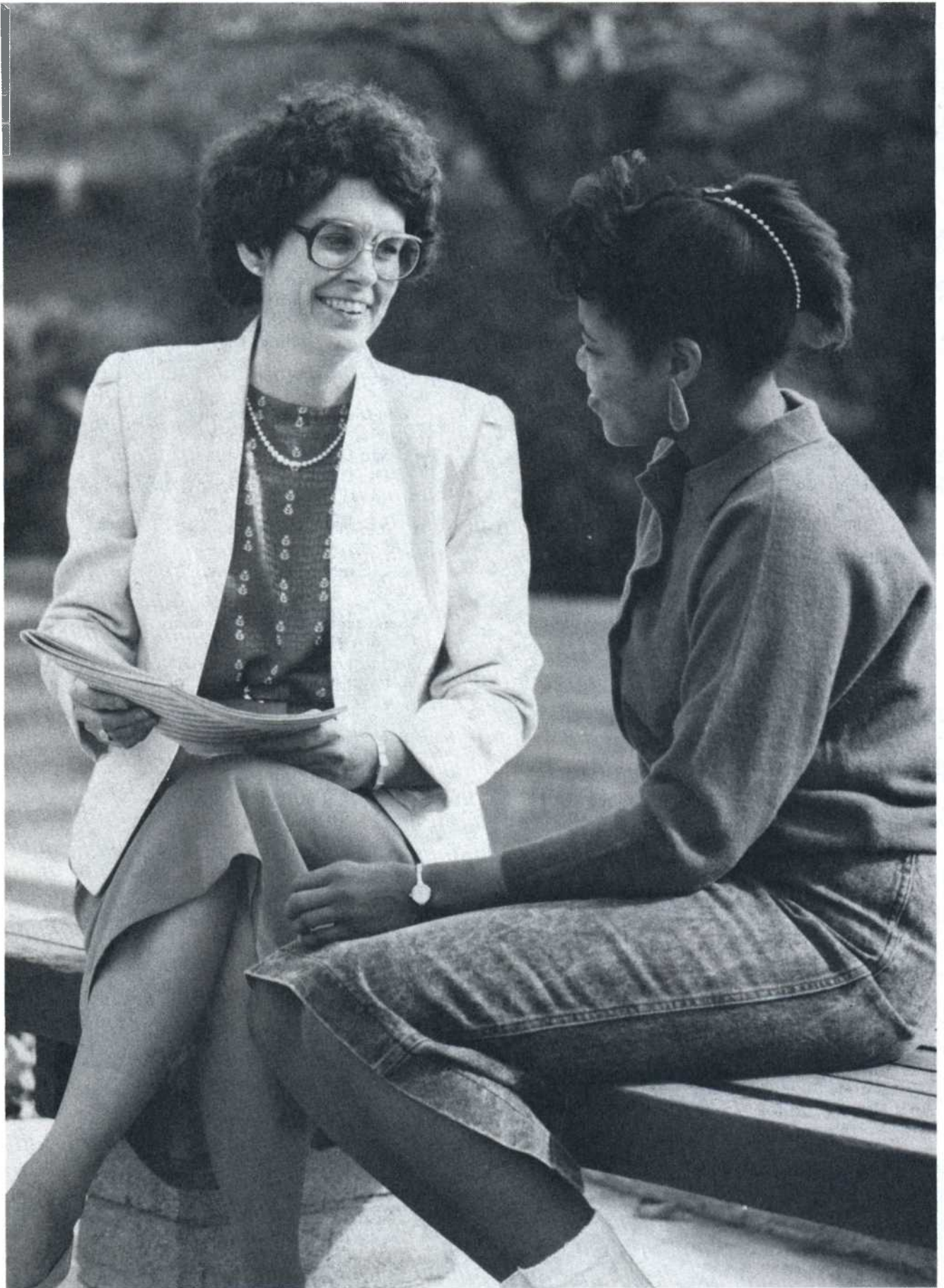
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Sonoma State University

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Rohnert Park, California 94928
Dr. David W. Benson, President
(707) 664-2880

California State University, Stanislaus

801 West Monte Vista Avenue
Turlock, California 95380
Dr. John W. Moore, President
(209) 667-3122



California State University, San Bernardino

Mission and Goals

The mission of California State University, San Bernardino is to be a comprehensive public institution of higher learning which prepares men and women from San Bernardino and Riverside Counties for lives of personal growth, professional advancement and service to the community.

The University fulfills its mission through a broad and expanding range of educational opportunities. In addition to well-established programs in the arts, letters, sciences, business and public administration and education, the University offers a broad range of applied programs such as computer, human services and nursing, and other programs needed for emerging career fields in this rapidly changing service area. The University grants bachelor's and master's degrees, general and specialized teaching credentials and certificates attesting to academic, professional or vocational competencies. It also sponsors conferences, institutes, workshops and other continuing education opportunities for the community.

A unique feature of the University is the instructional program which combines small classes and independent study. This format nurtures critical and creative thinking, intellectual activity and active student participation. Central to this is the maintenance of a strong and dedicated faculty with commitment to both quality instruction and scholarly endeavor, a fine support staff which fosters out-of-class learning to complement in-class experiences and well-equipped facilities.

The University recognizes the challenge and potential inherent in the projected growth and change in the region. The service area encompasses 27,400 square miles. The region ranks 25th in the nation and fifth in the state as a major market and growth region. The population of the two counties, a richly varied economic and ethnic mixture, is expected to grow from more than two million in 1986 to approximately three million by the year 2000.

Students served by the University are representative of the population of this region: younger students of traditional college age who enter from high schools or transfer from community colleges and older students resuming their education. Fully half of these people pursue their education on a part-time basis; more than 75 percent are employed full or part-time. Groups the University serves include: business people, teachers, and other professionals; military personnel and veterans; a broad range of ethnic minorities; retirees; persons with disabilities; and individuals newly arrived in the United States. Although the student body is drawn primarily from Inland Southern California, the University also attracts students from the entire state, other states and foreign countries. Most students attend classes on campus during the day or evening. However, the University increasingly pro-

vides educational opportunities to students who are unable to commute to campus by offering instructional programs at off-campus sites or by nontraditional means. To meet the diverse needs of these students, the University offers day, evening and weekend classes, flexible scheduling, off-campus programs and nontraditional instruction.

The University, a unique partner with communities in its service area, is unmistakably regional in its outreach. It provides opportunities for community participation in intellectual, cultural, recreational, and social activities on campus; and, through its programs in the visual arts, music and theatre arts, serves as a regional cultural center. To the extent possible, the University makes campus facilities available to community groups. As the University moves toward its goal of increased service to the area and the state, it looks forward to greater opportunities to share resources and to exchange knowledge, ideas and experiences.

The above Statement of Mission and Goals was approved by the Faculty Senate and President Anthony H. Evans in November 1983 and revised in February 1987.

LOCATION AND HISTORY

The city of San Bernardino is situated at the foot of the San Bernardino Mountains, which form the northeastern boundary of the San Gabriel Valley. The valley's western terminus, 60 miles away, is the Los Angeles basin and the beaches of the Pacific Ocean.

In earlier times the San Bernardino area was the home of Serrano, Luiseno and Cahuilla Indians. The first pioneers from Mexico settled in the San Gabriel Valley in the 1770s. Mission San Gabriel was founded by Fr. Junipero Serra in 1771, ten years before pueblo Los Angeles was established. The mission built a fortified asistencia near modern San Bernardino in 1819, but this was abandoned in 1834 when newly independent Mexico secularized the missions.

In 1842 the Lugo family purchased the 37,000-acre San Bernardino Valley. A group of Mormon colonists came to the valley in 1851, purchased the Lugo Rancho and built a stockade near the present county courthouse. A village developed around the stockade and this, coupled with California statehood, led to the establishment of San Bernardino County in 1853 and the incorporation of the city of San Bernardino in 1854. Connection to the trans-continental railroad in 1885 recognized the valley's importance and insured its future growth and prosperity.

Inland Southern California

Historic San Bernardino Valley is part of inland southern California, an area encompassing all of San Bernardino and Riverside counties. The University is within the Riverside-San Bernardino-Ontario metropolitan area and serves as well more

distant locations in the two counties—the Colorado River communities of Blythe and Needles; the high desert area including Victorville and Barstow; the low desert, Coachella Valley region including Palm Springs and Indio; the mountain communities of Big Bear, Lake Arrowhead and Idyllwild; the Hemet Valley, including Hemet, San Jacinto and Perris.

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Manager, Coyote Bookstore..... Carol A. Dunlap
Manager, Food Service Keith Ernst, B.A.



The University Academic Program

Now in its third decade, California State University, San Bernardino continues its development in new directions.

The College opened in 1965, offering six degree programs to approximately 300 students and focusing on the liberal arts. Currently the curriculum has been expanded to 42 baccalaureate degree programs, 15 teaching credential fields and various options within 16 master's degree programs. Current enrollment exceeds 10,500.

While continuing to emphasize the liberal arts, the University has implemented a number of career-oriented programs, both at the undergraduate and at the graduate levels.

Academic Plan

Beginning in the fall term of 1989 the University made a major change in its curriculum with a shift from five units to four units as the typical course-credit value. The number of hours of study and preparation expected per unit will remain constant as will the number of class hours per week, only the fifth unit of credit, which had traditionally been earned through out-of-class, independent study, is being dropped. The total number of units required for graduation will remain the same; however, departments are adapting the content and size of majors and general education to reflect this basic change in practice.

Class Size

A distinctive feature of the San Bernardino plan is the attempt to offer the majority of courses in a small lecture/discussion/seminar format. Currently approximately 70 percent of the courses are taught in this arrangement, with a class size ranging from 15 to 24. This small class size increases the possibilities for discussion and for student-faculty contacts both within and outside the classroom.

To maintain the small class as the norm requires that a small proportion of courses be offered in a large-lecture format (maximum enrollment of 250) or in an intermediate size (enrollment of 30 to 72).

Among lower-division general education courses, those in the basic skills area, in foreign language and in philosophy are offered mostly through small classes, while those in other areas employ intermediate or large-lecture classes. Upper-division general education courses are also offered in the large-lecture format. Each department utilizes intermediate size classes for a small number of required or elective courses, but the majority of departmental offerings are in small classes. The typical laboratory section has a maximum enrollment of 24, sometimes less.

Faculty Office Hours

In addition to meeting with students during designated class hours, faculty members hold regularly scheduled office hours, which are posted outside their offices. A student who is unable to see a faculty member during class or the posted office hours may arrange an appointment by contacting the appropriate department office.

Accreditation

The California State University, San Bernardino is accredited by the Western Association of Schools and Colleges, the official accrediting body for institutions of higher learning in the West. The teaching credential programs are approved by the California State Board of Education and Commission on Teacher Credentialing.

The following professional programs have received specialized approval or accreditation from organizations recognized by the national Council on Post-secondary Education:

- Art (BS)—National Association of Schools of Art and Design
- Chemistry (BS)—American Chemical Society
- Computer Science (BS)—Computer Science Accreditation Commission of the Computing Sciences Accreditation Board
- Foods and Nutrition (BS)—American Dietetics Association (Plan V, Didactic Program in Dietetics)
- Public Administration (MPA)—National Association of Schools of Public Administration and Affairs
- Nursing (BS)—National League of Nursing
- Rehabilitation Counseling (MA)—Council on Rehabilitation Education

The University Honors Program

The University Honors Program stands for an education that will give each student the opportunity to explore ideas and principles underlying the major areas of modern knowledge, the understanding that learning is a continuous lifetime process, and the courage and enthusiasm to participate in the creation of a better world. This program offers integrated courses and other enrichment opportunities for highly-motivated students who seek an intellectual challenge. Most honors courses fulfill the general education requirements which all students at the University must meet.

Students who have shown scholastic ability, intellectual promise, and creativity are encouraged to apply for the program. Further information about the Honors Program can be obtained through the Office of the Dean of Undergraduate Studies, Student Services Building, Room 158, 880-5032.

Phi Kappa Phi

The University has an active chapter of the national honor society of Phi Kappa Phi, whose purpose is the recognition and encouragement of superior scholarship in all academic disciplines. Membership is by invitation issued to selected juniors, seniors and graduate students who have excelled in scholarship and who meet the chapter's requirements.

Baccalaureate Degree Programs

In the 1991-92 academic year, the University will offer bachelor's degree programs in the following fields (majors):

School of Business and Public Administration	Administration*	B.A./B.S.
School of Humanities	Art*	B.A.
	Communication*	B.A.
	English*	B.A.
	French*	B.A.
	Humanities*	B.A.
	Music*	B.A.
	Philosophy*	B.A.
	Spanish*	B.A.
	Theatre Arts*	B.A.
School of Natural Sciences	Biology*	B.A./B.S.
	Chemistry*	B.A./B.S.
	Computer Science	B.S.
	Foods and Nutrition	B.S.
	Geology	B.S.
	Health Science*	B.S.
	Industrial Technology	B.S.
	Mathematics*	B.A./B.S.
	Nursing	B.S.
	Physical Education*	B.S.
	Physics*	B.A./B.S.
School of Social and Behavioral Sciences	Anthropology*	B.A.
	Criminal Justice*	B.A.
	Economics*	B.A.
	Geography*	B.A.
	History*	B.A.
	Political Science*	B.A.
	Psychology*	B.A.
	Social Sciences	B.A.
	Sociology*	B.A.
Interdisciplinary Programs	American Studies	B.A.
	Environmental Studies	B.A.
	Human Development	B.A.
	Human Services	B.A.
	Liberal Studies	B.A.
	Special Major	B.A.
	Vocational Education	B.V.E.

* program also has a minor available

Graduate Programs

In the 1991-92 academic year, the University will offer master's degree programs in the following fields:

- Biology, M.S.
- Business Administration, M.B.A.
- Criminal Justice, M.A.
- Education, M.A. with options in:
 - bilingual/cross-cultural education
 - educational counseling
 - elementary education
 - environmental education
 - reading
 - secondary education
 - English for secondary teachers
 - history for secondary teachers
 - physical education for secondary teachers
 - special education
 - vocational education
- Educational Administration, M.A.
- English Composition, M.A.
- Health Services Administration, M.S.
- Interdisciplinary Studies, M.A.
- Mathematics, M.A.T.
- National Security Studies, M.A.
- Psychology, M.A. (with concentrations in
 - general psychology, industrial-organizational psychology and life-span psychology)
- Psychology, M.S. (with concentration in
 - clinical/counseling psychology)
- Public Administration, M.P.A.
- Rehabilitation Counseling, M.A.
- Social Sciences, M.A.
- Social Work, M.S.W.

Programs Under Development

The university is planning to offer the following programs in the future pending official authorization by the CSU Chancellor's Office.

<i>Degree</i>	<i>Contact</i>
Communication, M.A.	Communication Studies Department
Computer Science, M.S.	Computer Science Department
Educational Counseling, M.S.	Department of Advanced Studies in Education
English, M.A.	School of Humanities
Physical Education, M.A.	School of Natural Sciences
Physical Sciences, B.S.	School of Natural Sciences
Science Education, M.A.T.	School of Natural Sciences
Urban Planning, M.A.	Geography Department
Vocational Education, B.S.	Department of Secondary and Vocational Education

The Coachella Valley Center

Now it is possible for residents of the Coachella Valley and surrounding communities to complete a B.A. or M.A. or teaching credential without driving long distances. Cal State, San Bernardino opened a satellite campus at College of the Desert in fall of 1986, and the two institutions are working in partnership to provide affordable higher education.

College of the Desert provides freshman and sophomore-level course work, while the University's Coachella Valley Center (as the satellite is called) offers junior, senior and graduate level classes in a variety of programs. Degree and credential programs which can be completed in their entirety at the Coachella Valley Center include the following:

- Administrative Services (Credential)
- Business—Management (B.A.)
- Communication (B.A.)
- Education (M.A.)
- Educational Administration (M.A.)
- English (B.A.)
- Liberal Studies (B.A.)
- Multiple Subject (Credential)
- Public Administration (M.P.A.)
- Pupil Personnel Services (Credential)
- Psychology (B.A.)
- Single Subject (Credential)
- Social Sciences—Track B (B.A.)
- Special Major: Paralegal Administration (B.A.)
- Vocational Education (B.V.E.)

Like the main campus, the center is on the quarter system, and students can enroll either exclusively in Coachella Valley, or can combine San Bernardino and Coachella classes. Admissions information, course registration, academic advising, and a variety of student services are available at the center site.

The center is located on the College of the Desert campus (across from the football stadium) at 43500 Monterey Avenue, Palm Desert. Both daytime and evening classes are offered. For further information, please call the center at (619) 341-2883.

Special Courses

More specific information on the special courses described below can be obtained from the Office of Academic Programs or the appropriate schools and departments.

Comprehensive Examinations. Students now have limited opportunities to spend a full term out of the classroom while preparing for comprehensive examinations that serve as alternatives to regular instruction. Comprehensive examinations are currently available in psychology, sociology and in upper-division general education.

Cooperative Education. The University is developing ways in which students may earn course credit through academically related work experience. Currently available are internship courses in administration, anthropology, art, biology, chemistry, communication, computer science, criminal justice, economics, English, finance, geography, history, health science, information science, industrial technology, management, marketing, management science, public administration, paralegal studies, political science, psychology and sociology.

Self-Paced Courses. An alternative mode of instruction, being developed for a few courses, enables students to set their own learning pace. Some of these, such as French 101-102-150, involve some classroom work. Others—such as Accounting 211, 212; Anthropology 335; Criminal Justice 357; Finance 313; History 370BA; History 380; Management Science 210 and 304; Psychology 385 and Social Sciences 215—are conducted on an independent study basis made possible through the use of study guides, video tapes and other instructional resources.

Facilities

The 430-acre campus features more than 25 fully accessible and air-conditioned buildings surrounded by wide open, well-maintained landscapes, and providing panoramic views. Enhancing the physical plant will be the Classroom/Student Services/Faculty Office Building, currently under construction, scheduled for occupancy in Winter, 1992.

In addition to classrooms and laboratories for course work in the arts, letters and sciences, the University has a number of rather distinctive facilities, such as simulation laboratories, a modern instructional center for counseling psychology, an electronic music studio, glass blowing facilities and state-of-the-art self-instruction computer laboratories located in each of the major instructional buildings.

The University Library

The Pfau Library consists of a general collection of 525,000 books and bound periodicals. The Library subscribes to more than 3,200 periodicals and newspapers in addition to other serial publications. The book collection is further augmented by recordings, musical scores, maps, microformat materials, pamphlets, curriculum materials and data base search service. As a depository for California state documents, the Library regularly receives state publications. Reciprocal borrowing agreements with other area libraries further enhance the availability of material.

All materials are easily accessible to students. An open-shelf arrangement of the collection gives users convenient access to Library materials.

The Library occupies the first, third and fourth floors and parts of the basement and fifth floors of the Pfau Library Building in the center of the campus. Special facilities include individual study cubicles and carrels, group study rooms, typing rooms, listening facilities, photo-duplicating service, microform rooms, a map room and seating for about 500 users. Individual or group instruction in Library usage is available upon request.

The Computer Center

The Computer Center provides access to micro-computer laboratories and time-sharing systems which allow students a wide range of computing experiences. Each year, approximately 32 percent of the student body utilizes the different computer resources for class assignments in programming, problem solving, simulations and computer-assisted instruction. In addition, many students use the computer labs for independent projects and research.

Generally, students access the various microcomputer systems through open computer laboratories and computer classrooms. There are 16 labs and classrooms located in the Pfau Library, and several other facilities in other buildings on campus. Classrooms are scheduled for computer-using classes, and extended hours are offered for the completion of homework assignments. Most microcomputer labs are networked, allowing easy access to useful software, such as word processing and spreadsheets. Consultants are available in many labs to assist student users with their computer problems. Altogether, there are over 350 Apple, IBM, Zenith and AT&T microcomputers available for student use.

The time-sharing computer systems available through the Computer Center include an IBM 4381 (VM/MVS) computer and a Digital Equipment Corporation VAX 3500 (VMS) microcomputer. The Computer Center also provides access to other computer systems at other CSU campuses through the state-wide CSUNET communications network. Through CSUNET, international communications with other university systems is possible via BITNET, and nation-wide access to other computer systems is possible via INTERNET.

The Computer Center provides supported computer systems and resources at no expense to all students; both graduates and undergraduates can access computers for class use or for special projects.

Scheduling of Classes

Most four-unit courses meet for 200 minutes per week. Three basic plans are used in scheduling classes: three meetings per week (usually Monday-Wednesday-Friday), two meetings per week or one meeting. Principal exceptions occur among laboratory, activity and studio courses and courses which carry less than four units of credit.

The two-period, two-day-per-week format is utilized for Tuesday-Thursday classes and most late afternoon and evening courses; the single four-hour period format has been found most appropriate for certain evening and weekend classes. The University attempts to maintain accurate information about changing student needs and to adjust its class schedule accordingly.

Institutes

The University sponsors the following institutes which are interdisciplinary in nature and are comprised of faculty from a number of different schools.

Behavioral Health Institute. Director, Elizabeth Klonoff, Department of Psychology, 880-5584. Established to provide a central clinical, research, and training location for professional health service practitioners, scholars, students and teachers as well as a forum within which issues related to health and health-related behaviors can be explored.

Institute for Science Education. Director, Herb Brunkhorst, Department of Secondary and Vocational Education, 880-5613. Established to promote the improvement of science education in addressing the needs for professional preparation in the sciences and scientific literacy for citizenship and to promote the utilization of science education as an interface between science and society.

Institute for Applied Research and Policy Analysis. Directors, Shel Bockman, Department of Management, 880-5733, and Barbara Sirotnik, Department of Information and Decision Sciences, 880-5729. Established to meet the information needs of policy and decision makers in the Inland Empire, conducting applied business, social and public policy research, and offering research and related consulting services to the community, CSUSB faculty and Centers on the CSUSB campus.

Centers

Individual academic schools sponsor the following centers on campus. For further information, contact the director listed.

Inland Empire Management Center. Director, Bryan Pettit, Department of Information and Decision Sciences, 880-5727. Representing the School of Business and Public Administration, the IEMC conducts seminars, short courses, contract classes, and conferences, provides management consulting by faculty and performs regionally specific applied research for the community.

Center for Integrative Learning. Director, Renate Caine, Department of Secondary and Vocational Education, 880-5618. Established to conduct research and develop research models which acknowledge the “multiple and complex patterns” inherent in the teaching learning process; to provide both faculty and the community with “state of the art” developments in education and educational evaluation; and to serve as a “conduit” to other educational institutions and organizations.

Center for Equity in Education. Director, Esteban Diaz, Department of Elementary and Bilingual Education, 880-5621. Established by faculty of the School of Education to address issues related to

providing equitable education for students at all levels of the educational system. Of special concern to the Center are public school students who are from different linguistic and cultural backgrounds or who have special educational needs.

Center for Economics Education. Director, Jim Charkins, Department of Economics, 880-5553. Established to train teachers in the economics method of thinking so that their students will become better informed concerning the economy in which they live, the relationship of the U.S. economy and the world economic system, and the economics of various social and political issues.

Center for the Enhancement of Math Education. Director, Joan Hallett, Department of Mathematics, 880-5368. Established to serve as a vehicle for identifying, analyzing, and addressing the needs of mathematics teachers in the service area.

Center for Applied Science. Established to promote applications of science to real or possible problems of importance to the community and training of students in research to continue to advance the applications of science.

Center for Prose Studies. Director, Bruce Golden, Department of English, 880-5832. Established to remedy the lack of a rigorous collective effort devoted to the “product” of expository writing instruction—the prose itself.

International Programs

Now in its 27th year of continuous operation, the California State University (CSU) International Programs offers students the opportunity to continue their studies overseas for a full academic year while they remain enrolled at their home CSU campus. The International Programs’ primary purposes are to enable selected students to gain a firsthand understanding of other areas of the world and to advance their knowledge and skills within specific academic disciplines in pursuit of established degree objectives. Since its inception, the International Programs has enrolled nearly 10,000 CSU students.

A wide variety of academic majors may be accommodated by the 36 foreign universities cooperating with the International Programs in 16 countries around the globe. The affiliated institutions are: the University of Queensland (Australia); the University of Sao Paulo (Brazil); the universities of the Province of Quebec (Canada); the University of Copenhagen (through Denmark’s International Student Committee’s Study Division); the University of Provence (France); the Universities of Heidelberg and Tübingen (Germany); the Hebrew University of Jerusalem (Israel); the University of Florence (Italy); Waseda University (Japan); the Iberoamericana University (Mexico); Massey University and Lincoln University College (New Zealand); National Chengchi University (Republic of China/

Taiwan); the Universities of Granada and Madrid (Spain); the University of Uppsala (Sweden); Bradford, Bristol, Sheffield and Swansea Universities; Kingston Polytechnic (the United Kingdom); and the University of Zimbabwe (Zimbabwe). Information on academic course offerings available at these locations is in the International Programs Bulletin which may be obtained from the International Programs representative on campus, Dr. Gabriel Bas-siry, Department of Management, AD-157.

To be selected to participate, students must have upper-division or graduate standing at a CSU campus by the time of departure, possess a cumulative grade point average of 2.75 or 3.0, depending on the program, for all college level work completed at the time of application, and have completed required language or other preparatory study where applicable. Selection is competitive and is based on home campus recommendations and the applicant's academic record. Final selection is made by the Office of International Programs in consultation with a statewide selection committee.

The International Programs pays all tuition and administrative costs overseas for each of its participants to the same extent that such funds would be expended to support similar costs in California. Students assume responsibility for all personal costs, such as transportation, room and board, and living expenses, as well as for home campus fees. Because they remain enrolled at their home CSU campus while studying overseas, International Programs students earn full resident credit for all academic work completed while abroad and remain eligible to receive any form of financial aid (other than work-study) for which they can individually qualify.

Information and application materials may be obtained from Dr. Richard H. Rowland on campus or by writing to The California State University International Programs, 400 Golden Shore, Long Beach, California 90802-4275. Applications for the 1992-93 academic year overseas must be submitted by February 1, 1992.

National Student Exchange Program

California State University, San Bernardino is a member of this cooperative program which allows selected students to spend up to a year at one of 87 colleges in more than 40 states. The exchange student pays either normal California State University, San Bernardino fees or "in state" tuition at the host institution.

This exchange encourages students to see another part of their own country, live and work in a different academic environment, and pursue specialized courses not offered at Cal State. Many NSE member colleges and universities offer international programs which can be accessed through the National Student Exchange. All course work taken

while on exchange is approved by an advisor and then evaluated by the records office *before* leaving campus. Thus, there is no loss of time or credits.

Students normally apply in the winter of their freshman or sophomore year exchange and are screened and placed during March for the next academic year. To qualify, students must have a 2.5 grade-point average. For information and applications, contact Theron Pace in Pfau Library, Room 101 or telephone 880-5238.

London Business Program

All business or pre-business students with a 2.0 grade point average or higher are eligible to take classes with CSU faculty in London for either a Fall or Winter Quarter. The CSU system has a partnership program with AIFS, the American Institute for Study Abroad, which arranges housing, and an extensive social and cultural program. Students take regular CSU classes, usually at the junior or senior level. Classrooms are located within easy walking distance of the Royal College of Art, the Victoria and Albert Museum, the British Museum, the Imperial College and Kensington Square.

For additional information contact Dr. Sue Greenfeld, Department of Management, at 880-5737.

University Foundation

The Foundation of the California State University, San Bernardino, a California nonprofit corporation, was established in 1962 for the purpose of promoting and assisting the educational services of the University. The Foundation Board of Trustees establishes policies for the administration of scholarships, federal research grants and the operations of the Commons and Coyote Bookstore.

The CSU Desert Studies Center

A fully-equipped desert field station, the Desert Studies Center, is available for use by CSU faculty and students. The center is located in the Eastern Mojave Desert, 11 miles southwest of Baker, California, at the western edge of the East Mojave National Scenic Area, and adjacent to areas of critical ecological concern.

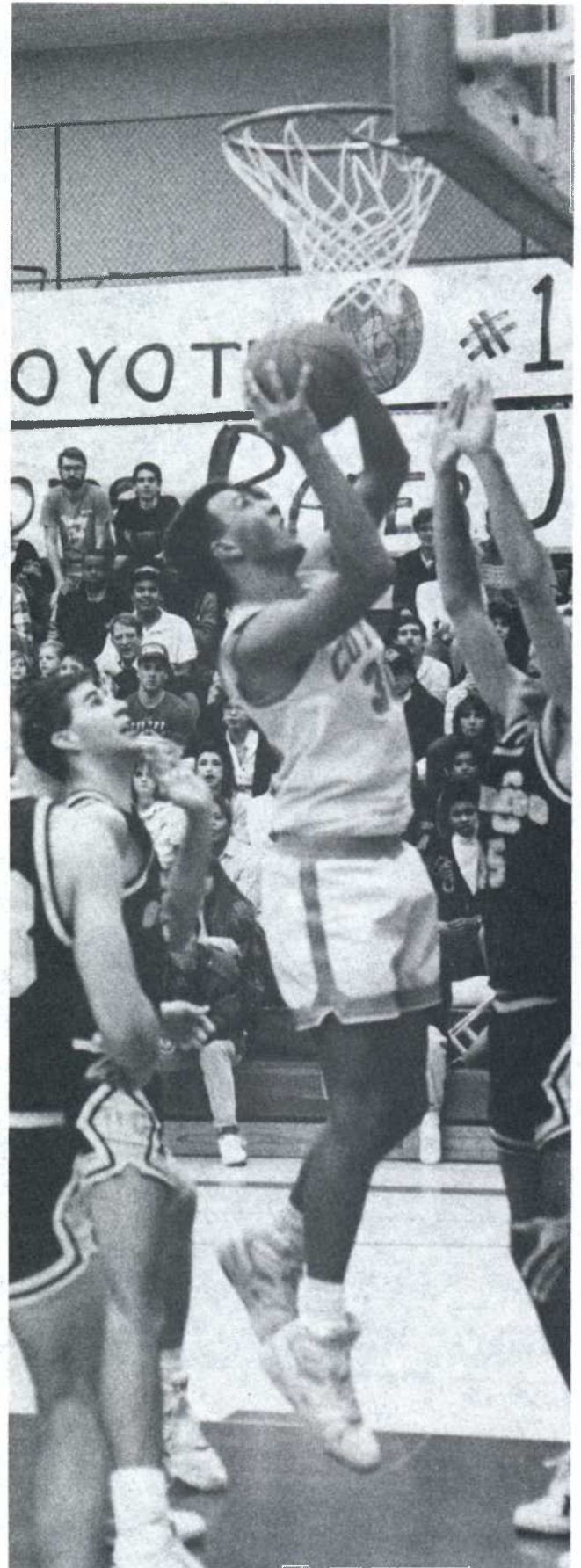
The center contains the habitat of the Mohave Tui Chub, a federally registered, endangered species of fish. Dormitory, laboratory, classrooms and library facilities are available to support classes and individuals conducting independent study projects and research.

The center offers a variety of short-term courses on desert-related topics and hosts field-oriented courses in anthropology, archaeology, art, biology, geography, geology and history.

The School of Natural Sciences Office can supply information to those seeking to use or visit the Desert Studies Center or phone (714) 773-2428.

Campus Tours

Tours of the Cal State campus are available throughout the year for individuals or groups. Student visitors interested in acquiring first-hand information about the University's programs or classes may request a meeting with faculty or administrators. Arrangements can be made to sit in on class lectures or visit the residence halls. Requests should be made through the Office of Pre-College Outreach Programs.





Academic Support Services

The University offers a wide range of academic support services designed to help students obtain their educational goals. These services include assistance with course work, personal counseling and support services for students from families with low incomes.

Counseling and Testing

The Counseling and Testing Center aids students in developing their personal resources and in making full use of opportunities for growth during their college years. Services include individual counseling, support groups, couples therapy and family therapy. All services are strictly confidential and free to University students.

The center also administers tests applicable to admission, academic placement and academic achievement, including the American College Testing (ACT) program and Graduate Record Examinations (GRE). Information and applications for other nationally administered tests used for college or graduate school entrance are also available from the center. The center is located in the Physical Sciences Building, Room 227, 880-5040.

The Learning Center

The Learning Center provides many free services which include tutoring for several undergraduate courses, testing services (self-paced, challenge, placement and make-up testing), basic computer instruction, study skills information/assessment, and supplementary academic advising. A four-unit college study skills course (UStd 37), which includes notetaking, time management, taking objective and essay exams, etc., is also offered each quarter throughout the academic year. In addition, the Learning Center offers special programs for ESL (English as a Second Language) students, and preparation for the ELM (Entry Level Mathematics) exam and CBEST (California Basic Educational Skills Test). Facilities are available for computer usage, video viewing, and cassette learning. Each summer, a Preparatory Enrichment Program (PEP) is offered for new and transfer students to prepare them for the college experience. The Learning Center is located in the lower level of the Pfau Library Building, Room 37, 880-5038.

Educational Opportunity Program

The Educational Opportunity Program (EOP) is an admissions and support services program designed to assist students who meet specific income guidelines and demonstrate the potential to obtain a baccalaureate degree offered by the University. The services are available for a maximum of five years.

Through the Educational Opportunity Program, the student receives help in admissions, registration, financial aid, housing, curriculum planning,

tutoring, counseling, job and graduate school placement and other support services, depending upon individual needs. EOP is located in the Student Services Building, Room 174, 880-5042.

Student Assistance in Learning (SAIL) Program

Student Assistance in Learning (SAIL) provides support services such as adjunct courses, specially designed workshops in careers, and graduate admissions information. Students enrolled in the program also receive academic and probation counseling, individual assistance in reading, and assistance in obtaining financial aid.

SAIL program services are designed to improve the retention and graduation rates of low-income first-generation, and handicapped students. Referrals to SAIL are made either by the student (self-referrals), departments, or by faculty members who identify students who can benefit from SAIL services.

SAIL is located in Trailer 1B, next to the Student Services Building, 880-5921.

Academic Services

The Office of Academic Services acts on petitions for waiver of university regulations which include general education course substitutions, residency requirements, leaves of absence, commencement participation and simultaneous enrollment. Petitions to drop after census date for undeclared students, and after the end of the seventh week for all students, are evaluated by this office. The office counsels students who are subject to dismissal and monitors compliance with the ELM (Entry Level Mathematics) test, EPT (English Placement Test), and upper-division writing requirement. Located in the Advising Center, Pfau Library Building, Room 107, 880-5034, this office also coordinates undergraduate academic advising for all new students and undeclared majors.

Advising Center

The Advising Center provides specialized academic advising services to all students who have not yet declared a major (both new and continuing). Faculty at the Advising Center will provide an in-depth orientation to general education and individualized help with specific general education requirements (for example, catalog-year requirements, Entry Level Mathematics test and English Placement Test scores and other testing information). They also will assist students in understanding their transfer credit summaries and with any problems involving university rules and regulations. Prospective students can obtain academic preadmissions counseling at the Advising Center.

The Advising Center is located in the Pfau Library Building, Room 107, with access from the east side of the library. The phone number is 880-5034.

Writing Center

The Writing Center, a joint project of the School of Humanities and Undergraduate Studies, works to support both writing itself and writing as a mode of learning. Tutors offer individual consultation to students writing in all disciplines and focus on generating, developing, and organizing ideas as well as on editing. Tutors also conduct weekly conversation groups for ESL (English as a Second Language) students. In addition, Faculty Writing Consultants help other faculty design, implement and evaluate writing projects for courses in all disciplines. Also, they consult with faculty who are writing for publication.

The Writing Center is located in the lower level of the Pfau Library, Room 37 (the Learning Center), 880-5833.

Student Life

Housing

Serrano Village, the University's on-campus housing facility, is a focal point of campus life for more than 400 residential students. Social as well as educational activities are organized by the Village residents with the assistance of the housing staff, making the Village a center for living and learning with other students.

The Village is composed of eight attractive redwood houses. Each house has a main lounge, recreation room, kitchenette, laundry-workroom, sun deck and patio. Both single and double rooms are available. Rooms are arranged in suites so that no more than 10 students share a living room and bathroom facilities.

The Village has both indoor and outdoor recreational facilities. The indoor area contains pool tables, a ping-pong table, mail boxes and a large activity room for meetings, dances and programs. The outdoor recreational area contains a barbecue, patio, volleyball court, paddle tennis court, sun deck and a swimming pool.

Living on campus is reasonably priced when compared to the rapidly rising costs of commuting and has the added advantage of being near the University Library and other facilities. The rates for living in the Village include meals served at the nearby University Commons. The cost of a double room and meals is expected to be approximately \$3,995 per year in 1991-92. Several convenient payment options are available. Serrano Village does not provide family housing or on-campus apartments for married students.

Any student needing information about housing, either on-campus or off-campus, should contact the Housing Office.

Associated Students, Inc. (ASI)

All students are members of the Associated Students, Inc., which is governed by an elected Board of Directors. A.S.I. sponsors a book co-op, check-cashing service, emergency loan program, legal aid and other student-initiated services. A.S.I. also assists the Children's Center, campus newspaper and many University-wide programs.

"Escape" is an A.S.I.-sponsored outdoor leisure program. Students have the opportunity to discover and learn about California's outdoors while participating in recreational activities. An informal atmosphere is created which enables students to make new acquaintances, to exchange ideas and to become more socially aware. Past "Escape" activities have included backpacking, skiing, sailing, canoeing, and trips to amusement parks, sports events and theatrical productions.

Activities

The diverse interests and lifestyles of students are reflected in numerous activities sponsored by

the University and the Associated Students, Inc. These programs include dances, drama productions, choral concerts, quarterly festivals, musical concerts, guest lecturers and small group socials.

The University and the Associated Students, Inc. encourage and aid formation of organizations which enhance the educational opportunities of students. These organizations involve students, faculty and staff working together in professional, recreational, educational, service, religious and cultural activities. University-recognized groups have full use of campus facilities in planning their programs.

Student Union

The Student Union is designed to provide comfort, a relaxing environment and recreation for students of the University. The Union includes a spacious lounge area, a convenient snack bar, the Pub with its large-screen television, pool table, electronic games, and an outdoor beer garden. Offices for the Associated Students, Inc., the campus newspaper, meeting rooms for various organizations and a large multipurpose room used for dances, lectures and movies are part of the facility.

Intercollegiate Athletics

An intercollegiate athletic program was implemented in the 1984-85 academic year. It is an NCAA, Division III program with cross country, basketball, swimming and tennis for both women and men; volleyball, softball and soccer for women and soccer, golf, baseball and water polo for men.

Other sports planned in the coming years are track and field for men and women.

The University mascot is the Coyote and the colors are light blue and brown.

New Student Programs

The purpose of new student orientation is to assist students in their transition to the University, introduce them to the broad educational opportunities at CSUSB and to integrate them into the life of the University. New student orientation programs are offered immediately prior to the beginning of each quarter. Fall orientations include a comprehensive overnight program for first-time freshmen, a transfer orientation and a program designed specifically for re-entry students. Winter and spring orientations are combined and are held in the evenings during quarter break. Each new student orientation program is designed to minimize anxiety and to promote positive attitudes about the students' success at the University. All new student orientation programs are staffed by student volunteers who have participated in a comprehensive training program. This leadership training is one of the ways new student orientation benefits continuing students. Many student orientation leaders as-

cent into positions of top-level leadership on campus due to their training and experience through new student orientation programs.

The Emerging Leader Program is designed to introduce new students to issues in leadership and to leadership opportunities on campus. New students are admitted to this program during fall quarter.

Student Clubs and Organizations

More than 90 student clubs and organizations are currently chartered at CSUSB. Departmentally affiliated (those directly related to an academic program), religious, cultural, service and political organizations are just a few of the clubs open to students. In addition, nine national sororities and fraternities are active on campus. The staff in the Student Life Office provides advice, support and extensive leadership development opportunities to students involved in organizations.

Recreational Sports

This program provides an opportunity for students, faculty and staff to participate in organized recreational sports activities.

Each quarter a comprehensive schedule includes at least 10 different intramural events, ranging from team sports to one-day individual activities. Some of the more popular programs are basketball, canoe races, flag football, street hockey, skiing, softball, volleyball and the annual turkey trot. Additional events will be offered to meet varying student interests.

Funding also may be provided, on a limited basis, for extramural athletic activities such as volleyball, softball and street hockey.

Specific information about the program is available at the Recreational Sports Office, PE-111.

Informal Recreation

The gymnasium, weight room, racquetball courts, tennis courts and swimming pool are available for unstructured use. Individual students who wish to utilize these facilities are encouraged to do so.

A large inventory of recreational equipment also is available for check-out to anyone possessing a valid California State University, San Bernardino identification card.

Outdoor Recreation

Since the campus is located only about 45 minutes from mountains, beaches and desert, students have a unique opportunity to explore a variety of recreational activities. The Associated Students, Inc. provides equipment which may be rented in the Student Union for backpacking and camping.

Career Development Center

The Career Development Center offers assistance for students in all areas of progress toward a fulfilling life and career. Programs address the educational and personal development issues facing students from freshman to graduate levels. Personal counseling and workshops are provided for students and alumni who desire assistance in the selection of a major, career exploration and choice, vocational testing and career-change advising.

In addition, the Career Development Center offers placement services which include résumé-writing workshops, interview-skill development and on-campus interview opportunities. Career placement files are maintained for the University's qualified degree and credential candidates. Except for certain vocational tests, service fees are not charged current students. A nominal fee for placement file service and vacancy newsletters are charged to alumni six months after student status has been completed.

Financial Aid

The Financial Aid Office administers a variety of programs to assist qualified students. Sources of aid include the federally sponsored Pell and Supplemental Educational Opportunity Grants, Perkins Loans and the College Work-Study Program. Stafford Student Loans, Parent Loans to Undergraduates and Supplemental Loans to Students are also available. Short-term loans are available for financial crises which require funds rapidly. The office also administers State University Grants, Educational Opportunity Programs Grants and the State Work-Study Program.

For a student interested in working part-time, on or off campus, assistance in obtaining a job is available through the Career Development Center.

The Student Aid Application for California must be submitted to the processor by March 1. Late applications are accepted after March 1 and throughout the school year if funds are available. Necessary forms can be obtained from high schools, community colleges or the University.

A full description of the University's financial aid programs is available in the free financial aid brochure.

Scholarships

The scholarships listed below are awarded to new and continuing students in accordance with the terms of the gifts. Scholarship applications are accepted until March 1. Contact the Financial Aid Office for details. Generally, students must possess a minimum grade-point average of 3.0 (B). Ordinarily, students applying for scholarships are considered for any for which they may be eligible.

The Association of Hispanic Faculty and Staff provides approximately \$2800 in scholarships to students who have evidenced an interest in Hispanic cultures.

The California Parent-Teachers Association (PTA) provides a \$350 scholarship to upper-division or graduate students entering the field of teaching. The student must be a citizen, of good character, possess a superior academic record, need financial assistance and make a commitment to teach in California for one year.

The California Retired Teachers Association provides a \$750 scholarship to a senior or graduate student entering the field of teaching. The student is selected on the basis of financial need, academic achievement and school and community activities.

The California State University Hispanic Scholarship Fund provides twenty \$1000 scholarships to students of Hispanic heritage, with preference given to entering freshmen and transfer students from a community college. This scholarship is funded in part by the National Hispanic Scholarship Fund, with matching funds from the California Lottery.

The California State University, San Bernardino Alumni Association provides \$3000 in scholarships of varying amounts to students exhibiting financial need, academic superiority and community involvement.

The California State University, San Bernardino Associates provides two scholarships totaling \$500 to upper-division students who possess a superior academic record, financial need and a record of good citizenship.

The California State University, San Bernardino Educational Equity Scholarship provides two \$1200 scholarships for incoming freshmen or transfer students from an underrepresented minority with a 2.5 grade point average and demonstrated financial need.

The Nicholas J. Coussoulis Scholarship provides \$5000 annually to be awarded to deserving underrepresented minority students.

The Del Rosa Grange Scholarship is an unrestricted annual award of approximately \$200.

The Paul Douglas Teacher Education Scholarship provides a maximum of \$5,000 per year for up to four years for students who are legal residents of California; graduated in the top 10 percent of their high school class; are pursuing an academic course of teacher preparation to be certified as a teacher; and who agree to pursue a single subject credential in a designated teacher shortage area, or multiple subject credential with a bilingual emphasis, or to teach in a low income area for two years for each year for which the scholarship is received. The number of awards provided varies each year.

The Anthony and Lois Evans Scholarship is awarded to a student with a minimum GPA of 3.5 who is involved in student performance activities

such as music, theatre art or debate/forensics. The annual award is approximately \$250.

The Faculty and Staff Memorial Scholarship honors the memory of deceased University faculty and staff. Amounts vary as additional funds are added to the scholarship; the most recent award was \$500. The Faculty and Staff Memorial Scholarship Fund, managed by the foundation, contains tributes to former faculty including Dr. Mary Cisar (died 1971), Dr. Walter Zoecklein (1975), Dr. Florence Mote (1977), Dr. Neville Spencer (1977), Dr. James Finley (1980), Dr. William Gean (1980), Dr. Alfred Egge (1982), Dr. Marvin Frost (1983), Dr. Robert R. Roberts (1984) and Dr. Margaret Lenz (1987).

The Foundation for California State University, San Bernardino provides approximately \$2000 in scholarships to continuing students with superior academic records and financial need.

The Leslie I. Harris/Bennet Meyers Memorial Fund provides two four-year scholarships of \$1200 per year to high school graduates from the San Bernardino area with outstanding academic records (3.5 grade-point average) and involvement in school activities.

The Douglas A. Housel Memorial Scholarship provides \$200 annually, with preference given to a history major.

The Donald W. Jordan Memorial Scholarship provides a \$500 annual scholarship for an undergraduate student interested in the practice of law.

The David Montano Memorial Scholarship of approximately \$500 is awarded annually to a junior or senior student who plans to continue his or her postsecondary education at California State University, San Bernardino.

Alfred F. and Chella D. Moore Scholarship Fund provides approximately \$19,500 in scholarships to incoming freshmen with outstanding academic records (3.5 grade-point average minimum). The amount of each award is \$1200; some awards may automatically be renewed for an additional three years for a total of \$4800. No special application is required for renewal.

The Alan Pattee Scholarship is provided to the children of California law enforcement personnel or firemen who are killed in the performance of official duties within the State of California. The amount of the scholarship is equal to the cost of tuition and mandatory registration fees.

The Ted Polen Memorial Scholarship of \$500 is offered annually to a student who is enrolled in at least 10 units which will apply toward a basic teaching credential or toward an undergraduate degree which is approved for teacher certification, has maintained a B+ average in all college-level work, and presents evidence of active participation in extracurricular activities at the high school or college level.

Professional Food-Service Management provides \$1000 in unrestricted scholarships.

The Riverside Foundation/Leon S. Heseaman Scholarship Fund provides approximately \$10,000 for scholarships to undergraduate students with superior academic records, financial need and records of good citizenship. Preference is given to residents of Riverside and San Bernardino counties. Typically, scholarships average \$500.

The San Bernardino County Central Credit Union provides a \$500 annual award to an undergraduate or graduate student who is enrolled full time in the School of Business and Public Administration or the School of Social and Behavioral Sciences.

The San Bernardino Career Ladder Scholarship provides \$750 which may be used for summer school fees for a person who currently works as a classified employee in the San Bernardino City Unified School District, and who enrolls in four units or more each quarter in a program which, when completed, will qualify the recipient to teach math, science or computer science in the public schools.

The San Bernardino Teacher Retraining Scholarship provides \$500 which may be used for summer school fees for a person who currently teaches in the San Bernardino City Unified School District, has completed five years as a teacher, possesses a valid California teaching credential and enrolls in five units or more each quarter in a program which, when completed, will qualify the recipient to teach math, science or computer science in the public schools.

The Nancy E. Smith Scholarship is provided to a full-time student majoring in public administration or political science who intends to pursue a career in public service. The amount of the award is \$300.

The Western Association of Food Chains offers five \$1000 scholarships to business administration majors with a career emphasis in the food industry.

The William H. Wilson Scholarship is an annual scholarship provided to a full-time student at California State University, San Bernardino, preferably from the immediate San Bernardino area. Applicants must demonstrate economic need. The scholarship will average \$350. Ordinarily, the scholarship will be given to a different student each year, but under special, extenuating circumstances, it may be renewed.

Some scholarships are administered by the major departments, and applications and further information about them may be obtained by contacting the department. These include, but are not limited to:

The California State University, San Bernardino Alumni Association, Education Chapter offers two \$250 scholarships to graduate students in education and is administered by the School of Education.

The California State University, San Bernardino Economics Department awards the Janczyk Family Scholarship, the John Winn Kennedy, Sr. Scholarship, and the Economics Alumni Scholarship to

economics majors or administration majors concentrating in business economics. Each award is approximately \$300.

The California State University, San Bernardino Music Department provides 25 merit scholarships totaling \$1650 to students who have demonstrated above-average proficiency with a musical instrument and have performed with a related University organization.

The California State University, San Bernardino School of Natural Sciences awards the Leon V. and Marion G. Pittman Scholarship annually to a full-time sophomore student majoring in biology, chemistry, mathematics, or physics. The emphasis in selection is on the student's academic record in the freshman year of studies at CSUSB. The most recent award was for \$650.

The California State University, San Bernardino Department of Public Administration selects an annual recipient of the Carroll J. Bellis Scholarship. This \$100 award is presented to a Public Administration major who has completed an outstanding research paper as part of the requirements for any class in public administration. The same department also administers the Margaret King Gibbs Scholarship of \$100 to a graduate student enrolled in the Master of Public Administration degree program, based on an outstanding academic record and outstanding research project and/or papers completed as part of the requirements for the degree.

The California State University, San Bernardino Theatre Arts Department provides 10 scholarships totaling \$1400 to students who have demonstrated excellence in the field of theatre arts.

The Anheuser-Busch Graduate Equity Fellowship of \$500 is awarded annually to a graduate student who is an underrepresented minority and is administered by the Office of Graduate Studies.

The Graduate Equity Fellowship is funded by the CSU Chancellor's Office, and administered by the Office of Graduate Studies. Ten underrepresented minority graduate students were awarded \$1500 each last year. A graduate assistantship in the major department of up to \$6500 accompanies this award.

Many students qualify for assistance through other programs not administered by the University. They include veterans benefits, dependents of disabled or deceased veterans, Social Security Administration, State Department of Rehabilitation, Bureau of Indian Affairs and other public assistance agencies.

Cal Grant A/B, Bilingual Teacher Grants and Graduate Fellowships. Students apply directly to the California Student Aid Commission for these state-sponsored awards which cover a portion of the expense of required fees. Applications and full information on these awards are available at high schools, community colleges and California State University, San Bernardino.

A table summarizing some of the financial aid resources can be found on page 32.

International Students

The International Student Services Office is the primary contact for international students including new immigrant and permanent resident students who are nationals of other countries. The ISS Office assists students upon arrival with locating temporary and permanent housing, provides an orientation to the community and the campus including information about academic requirements, immigration requirements, housing, health and support services available to the student. The ISS Office also provides programs and activities to assist students with personal growth and development. Assistance and referrals are available for academic and personal counseling.

The ISS Office works closely with the International Club and the various nationality organizations in bringing cultural events on campus. Information about club activities and field trips is available. The International Student Services Office is in the Pfau Library, Room 101.

Student Affirmative Action

The Student Affirmative Action (SAA) Program is designed to provide encouragement, assistance and information to junior high school students regarding opportunities in higher education. The primary objective of this early outreach effort (Project UPBEAT) is to increase the number of students from under-represented ethnic groups who have not necessarily considered a college education. Students participating in Project UPBEAT are likely to be regularly admissible to four-year colleges upon graduation from high school. Campus tours, lectures by professors and home visitations are major activities of the program.

Upward Bound Program

Upward Bound is a college-oriented program designed to assist potential high school youths develop the academic skills and motivation necessary for success in postsecondary education. All of these students are the first in their families to consider postsecondary education.

Upward Bound provides tutoring, counseling, career exploration, and an opportunity to experience educational development and personal growth within a university setting. Services are provided year-round and include Saturday instruction during the academic year.

During the summer component Upward Bound students participate in an intensive six-week residential program on the campus. Students enroll in high school courses in English, mathematics, science, reading, and writing and have access to all facilities available to regular university students. During their senior year students learn about the application process and how to apply for financial aid and scholarships.

Financial Aid Chart

<i>Types of aid</i>	<i>Who can help</i>	<i>Determination of eligibility</i>	<i>Repayment requirement</i>
A. Scholarships			
Local scholarships	High school or college counselor	GPA, need	no
University scholarships	University financial aid officer	GPA or GPA and need	no
B. Grants			
Pell Grant	High school or college counselor	need	no
Supplemental Educational Opportunity Grant	University financial aid officer	need	no
Cal Grant A/B, Bilingual Teacher Grants and Fellowships	High school or college counselor	GPA, need	no
Educational Opportunity Program Grant	University E.O.P. director or aid officer	need	no
State University Grant		need	no
C. Loans			
National Direct Student Loan	University financial aid officer	need	yes
California Insured Student Loan	University financial aid officer	need	yes
California loans to assist students	University financial aid officer	enrollment	yes
D. Work-study			
University work-study program	University financial aid officer	need	no
State work-study program	University financial aid officer	need	no
E. On and off-campus part-time jobs	University placement advisors	—	—

Other aid-related programs are available through the Veterans Administration, California State Rehabilitation, ROTC, Social Security, Bureau of Indian Affairs and other public assistance agencies.

Student Health Center

The Student Health Center provides all services normally administered in an acute-care clinic and contains a pharmacy. Services, available during posted hours, include minor surgery, dermatology, basic first aid, family planning and gynecological care. The Health Center is supported by student fees paid at registration and all regularly enrolled students, with validated identification cards, are eligible for services. Students in the extension program and those on employee fee waiver are not eligible.

A low-cost supplementary insurance plan is available to all regularly enrolled students through a private insurance company. This plan covers services not available at the Health Center. For more information or to purchase this insurance, call Associated Students, Inc., at 880-5932.

The Student Health Center provides clearances for the requirement that certain groups of students must present proof of measles and rubella immunizations in advance of or during the first quarter of attendance at the University. The clearance may be effected by the verifying of prior immunization records or by administering the measles vaccine. Please refer to Page 39 for detailed information.

Services to Students with Disabilities

The responsibility of this office is to offer aid to students who have a temporary or a permanent disability. A professional staff assists students with specialized academic support, counseling and assessment of and support for learning disabilities.

Academic support services available include reader services for the vision-impaired, interpreter services for the hearing-impaired, assistance with typing, test writing and note taking. Counseling for disability-related problems and university adjustment situations as well as specialized vocational testing and planning are provided. The staff helps to meet the educational needs of each student by arranging classroom accommodations and providing adaptive equipment. Assistance also is available to arrange for modified dormitory accommodations and to stimulate interest in social life at the University.

Prospective students are encouraged to contact the office to arrange appointments for admission information and campus orientation tours. The office is located in the Pfau Library, Room 101. The telephone number is (714) 880-5238 or 880-5240—Voice/TDD.

Department of Public Safety

The Department of Public Safety (Campus Police) is a fully certified law enforcement agency with primary responsibility for service and protection of the University community.

All officers are empowered by law to enforce all laws of the state of California. Receiving basic and advanced training at a regional sheriff's academy, the officers are professional peace officers.

The department provides a full range of services including crime prevention, criminal investigations, traffic control, patrol, plant security and environmental health services. Services provided to the campus community include property identification, lost and found, jumper cables and assistance to motorists locked out of their cars.

All services are provided 24 hours a day and may be obtained by dialing extension 5555 in emergencies and 5165 for all other requests.

Student Services

The Office of the Vice President for Student Services provides general information concerning campus policies, procedures and regulations and offers help to students seeking to resolve a campus problem. Students needing assistance with any University matter are invited to begin with this office. Specific policies regarding student grievances, discipline and emergency calls for students are administered by this office. A more complete statement on student privacy rights appears in the Appendix.

Children's Center

The Children's Center is a child development program which accommodates children of University students, faculty and staff as well as people from the community when space is available. The center is open during the academic year (Monday through Thursday, 7:30 a.m. to 8 p.m. and Friday, 7:30 a.m. to 4 p.m.) for children two years (toilet trained) to 12 years. Additional information regarding fees and space availability may be obtained by calling the Children's Center Office, at 880-5928.

Alumni Association

All graduates of the University are eligible to join and participate in the activities of the California State University, San Bernardino Alumni Association. Also eligible are those who earn credentials through the University and members of the senior class.

The purpose of the nonprofit association is to: assist alumni in continued cultural and educational development, further the community interests of the University, establish mutually beneficial relationships between the University and its alumni, and promote the educational goals of the University. Additional information may be obtained from the Alumni Affairs Office, or call 880-5008.

The Commons

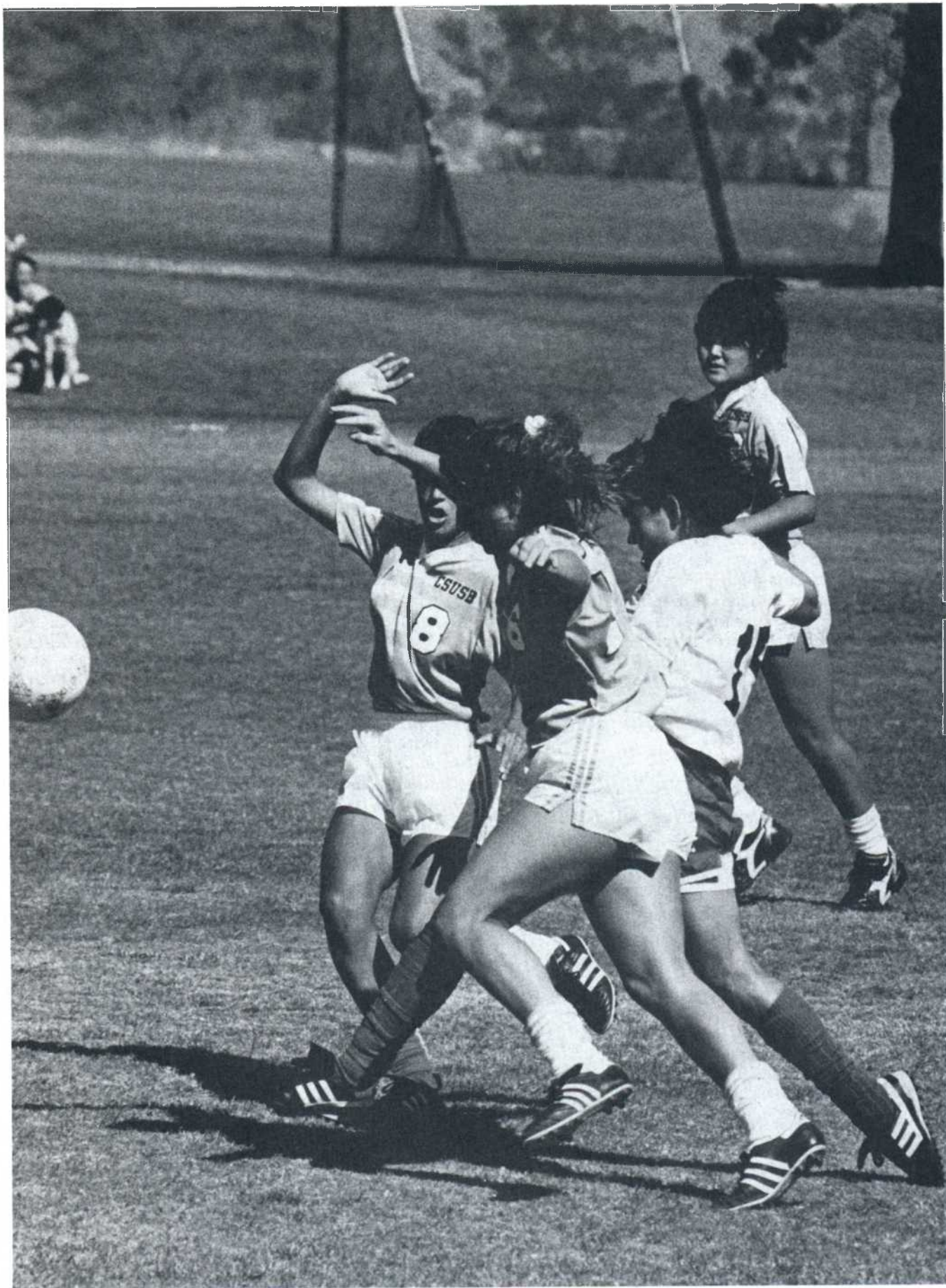
The Commons, one of the social centers of the campus, serves residential and commuter students, faculty and staff. The facility offers an attractive view of the mountains which provides a pleasant atmosphere for eating and relaxing.

Coyote Bookstore

Students are able to purchase or order books and supplies needed for classes plus tapes, class rings and personal items from the on-campus Coyote Bookstore, owned and operated by the University Foundation. The Coyote Bookstore is a nonprofit operation, with proceeds used to further the educational aims of the University.

Student Responsibility

Students at the University are subject to all federal, state and local laws as are other citizens. Of particular importance are regulations established by the State of California through its Education Code. In addition, Board of Trustees and local University regulations directly affect student life on campus. Students are responsible for their behavior on and off campus and are expected to comply with all policies and regulations which are posted and/or printed in University publications. Copies of all policies which affect students are available at the Office of the Vice President for Student Services. The Student Conduct Code, which relates to student disciplinary matters, appears in the Appendix of this catalog.



Admission to the University

Requirements for admission to California State University, San Bernardino are in accordance with Title 5, Chapter 1, Subchapter 3, of the California Code of Regulations. Prospective applicants who are unsure of their status under these requirements are encouraged to consult a high school or community college counselor or the Admissions Office. Applications may be obtained from the admissions office at any of the campuses of The California State University or at any California high school or community college.

The CSU advises prospective students that they must supply complete and accurate information on the application for admission, residence questionnaire and financial aid forms. Further, applicants must submit authentic and official transcripts of all previous academic work attempted. Failure to file complete, accurate and authentic application documents may result in denial of admission, cancellation of academic credit, suspension or expulsion (Section 41301, Article 1.1, Title 5, California Code of Regulations).

Students who are admitted to the University for a given term but who do not register in that term must file a new application form and \$55 application fee when they again seek admission and must meet the then current admission requirements.

Undergraduate Application Procedures

Prospective students, applying for part-time or full-time programs of study, in day or evening classes, must file a complete application as described in the admissions booklet. The \$55 nonrefundable application fee should be in the form of a check or money order payable to The California State University and may not be transferred or used to apply to another term.

Applicants need file only at their first choice campus. An alternative choice campus and major may be indicated on the application, but applicants should list as an alternative campus only that campus of The California State University that they can attend. Generally, an alternative major will be considered at the first choice campus before an application is redirected to an alternative choice campus. Applicants will be considered automatically at the alternative choice campus if the first choice campus cannot accommodate them.

Impacted Programs

The CSU designates programs to be impacted when more applications are received in the first month of the filing period than the spaces available. Some programs are impacted at every campus where they are offered; others are impacted at some campuses but not all. Students must meet supplementary admissions criteria when applying to an impacted program.

The CSU will announce before the opening of the fall filing period which programs are impacted and the supplementary criteria campuses will use. That announcement will be published in the CSU School and College Review, distributed to high school and college counselors. The CSU also will give information about the supplementary criteria to program applicants.

Students must file their applications for admission to an impacted program during the first month of the filing period. Further, if they wish to be considered in impacted programs at two or more campuses, they must file an application to each. Non-resident applicants are rarely admitted to impacted programs.

Each campus with impacted programs uses supplementary admission criteria in screening applicants. Supplementary criteria may include ranking on the freshman eligibility index, the overall transfer grade-point average and a combination of campus-developed criteria. Students required to submit scores on either the SAT or the ACT should take the test no later than December if applying for fall admission. The supplementary admission criteria used by the individual campuses to screen applicants appear periodically in the CSU School and College Review and are sent by the campuses to all applicants seeking admission to an impacted program.

Unlike unaccommodated applicants to locally impacted programs, who may be redirected to another campus in the same major, unaccommodated applicants to systemwide impacted programs may not be redirected in the same major but may choose an alternative major either at the first choice campus or another campus.

Application Filing Periods

<i>Terms in 1991-92</i>	<i>Applications first accepted</i>	<i>Student notification begins</i>
Summer quarter 1991	Feb. 1, 1991	March 1991
Fall semester or quarter 1991	Nov. 1, 1990	Dec. 1990
Winter Quarter 1992	June 1, 1991	July 1991
Spring semester or quarter 1992	Aug. 1, 1991	Sept. 1991

Each campus accepts applications until capacities are reached. Many campuses limit undergraduate admissions in any enrollment category because of overall enrollment limits. If applying after the initial filing period, consult the campus admissions office for current information.

Application Acknowledgment

Students may expect to receive an acknowledgment of their application from their first-choice campus within two to four weeks of filing the ap-

plication. A notice that space has been reserved will also include a request that they submit the records necessary for the campus to evaluate their qualifications. Students may be assured of admission if the evaluation of their qualifications indicates they meet admission requirements. Such a notice is not transferable to another term or to another campus.

Hardship Petitions

The campus has established procedures for considering qualified applicants who would be faced with an extreme hardship if not admitted. Prospective hardship petitioners should contact the University regarding specific policies governing hardship admission.

Undergraduate Admission Requirements

First-Time Freshman Applicants

Students will qualify for regular admission as a first-time freshman if they

1. are high school graduates (see High School Graduation Equivalency below),
2. have a qualifiable eligibility index (see below), and
3. have completed with grades of C or better the courses in the comprehensive pattern of college preparatory subject requirements (see Subject Requirements and Phase-in of the Subject Requirements below).

Eligibility Index—The eligibility index is the combination of the high school grade-point average and the score on either the American College Test (ACT) or the Scholastic Aptitude Test (SAT). For this purpose, the university computes the grade-point average on the final three years of high school studies, excluding physical education and military science, and uses bonus points for certain honors courses. CSU may offer students early, provisional admission based on work completed through the junior year of high school and planned for the senior year.

Students can calculate the index by multiplying their grade-point average by 800 and adding their total score on the SAT. Or, if they took the ACT, multiply the grade-point average by 200 and add ten times the composite score from the ACT. California high school graduates (or legal residents of California for tuition purposes) need a minimum index of 2800 using the SAT or 694 using the ACT. The table on Page 431 shows the combinations of test scores and averages required. Students who neither graduated from a California high school nor are a resident of California for tuition purposes need a minimum index of 3402 (SAT) or 842 (ACT).

Applicants with grade-point averages above of 3.0 or above (3.60 for nonresidents) are exempt from the test requirement.

High School Graduation Equivalency—

- a. *Students Who Are Not High School Graduates*—may satisfy the high school graduation requirement by submitting the California Certificate of Proficiency or the General Education Development (GED) certificate or equivalent certificates awarded by other states.
- b. *California High School Proficiency Test*—A “pass” on the California High School Proficiency Examination is considered equivalent to graduation from high school.
- c. *Tests of General Educational Development (GED)*—An applicant submitting scores on the GED has established high school graduation equivalence if the average score for the five tests is 45 or better and each score is at least 40.
- d. *Meeting Admission Requirements*—Applicants presenting the high school proficiency test or the GED will be expected to meet the fifteen-unit college preparatory subject requirements. Grades in courses completed after grade 9 are used to calculate the grade point average for the eligibility index.

Subject Requirements

The California State University requires that first-time freshman applicants complete, with grades of C or better, a comprehensive pattern of college preparatory study totaling 15 units. A “unit” is one year of study.

English, 4 years.

Mathematics, 3 years: algebra, geometry, and intermediate algebra.

U.S. History or U.S. History and Government, 1 year.

Science, 1 year with laboratory: biology, chemistry, physics, or other acceptable laboratory science.

Foreign language, 2 years in the same language (subject to waiver for applicants demonstrating equivalent competence).

Visual and performing arts, 1 year: art, dance, drama/theater, or music.

Electives, 3 years: courses selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts and agriculture.

Subject Requirement Substitution for Students with Disabilities

Disabled-student applicants are strongly encouraged to complete college preparatory course requirements if at all possible. If an applicant is judged unable to fulfill a specific course requirement because of his or her disability, alternative

college preparatory courses may be substituted for specific subject requirements. Students who are deaf and hearing impaired, have learning disabilities or are blind and visually impaired may in certain circumstances qualify for substitutions for the foreign language, mathematics and laboratory science subject requirements. Substitutions may be authorized on an individual basis after review and recommendation by the applicant's academic advisor or guidance counselor in consultation with the director of a CSU Disabled Student Services Program. Although the distribution may be slightly different from the course pattern required of other students, students qualifying for substitutions will still be held for 15 units of college preparatory study. Students should be aware that course substitutions may limit later enrollment in certain majors, particularly those involving mathematics. For further information and substitution forms, please call the director of Disabled Student Services at CSUSB or at the nearest CSU campus.

Phase-In of the Subject Requirements

California State University is phasing in the conditional admission of applicants otherwise admissible but who are missing a limited number of the required freshman subjects.

Conditional admission is an alternative means to establish eligibility for admission. Applicants otherwise eligible for regular admission, but missing a limited number of the preparatory subjects, will be regularly admitted on condition that they make up the missing subjects early in their baccalaureate studies. Students will not be denied admission during the phase-in period simply because they lack a limited part of the required pattern.

Under the plan, the minimum number of subjects to be completed each year will be:

Fall 1991–Summer 1992: at least 13 of the required 15 units, including at least three of the units required in English and two of the units required in mathematics.

Fall 1992—full implementation of the 15-unit requirement expected.

Waiver of Foreign Language Subject Requirement

The foreign language subject requirement may be waived for applicants who demonstrate competence in a language other than English equivalent to or higher than expected of students who complete two years of foreign language study. Consult with a school counselor or any CSU campus admissions or relations with schools office for further information.

High School Students

Students still enrolled in high school will be considered for enrollment in certain special programs if recommended by the principal and if preparation is equivalent to that required of eligible California high school graduates. Such admission is only for a given program and does not constitute the right to continued enrollment. The University's High School-University Program enables qualified high school juniors and seniors to enroll in university classes at times convenient to their high school schedules. A brochure describing the program is available from the Office of Admissions or the Pre-College Outreach Program Office.

Provisional Admission

California State University, San Bernardino may provisionally admit first-time freshman applicants based on their academic preparation through the junior year of high school and planned for the senior year. The campus will monitor the senior year of study to ensure that those so admitted complete their senior year of studies satisfactorily, including the required college preparatory subjects, and graduate from high school.

Graduates of secondary schools in foreign countries must be judged to have academic preparation and abilities equivalent to applicants eligible under this section.

Transfer Applicants

Applicants will qualify for admission as transfer students if they have a grade-point average of 2.0 (C) or better in all transferable units attempted, are in good standing at the last college or university attended, and meet one of the following standards:

- (a) were eligible as a freshman (see Undergraduate Admission Requirements) at the time of application for admission or at the time of graduation from high school, provided they have been in continuous attendance at a college since graduation, or
- (b) were eligible as a freshman except for the college preparatory subject requirements and have completed appropriate college courses in the missing subjects and have been in continuous attendance in an accredited college since high school graduation, or
- (c) have completed at least 56 transferable semester (84 quarter) units and have completed appropriate college courses to make up any missing college preparatory subjects (see Subject Requirements). (Nonresidents must have a 2.4 grade-point average or better.)

For this requirement, transferable courses are those designated for that purpose by the college or university offering the courses.

Making Up Missing College Preparatory Subject Requirements—Undergraduate transfer applicants who did not complete the subject requirements while in secondary school may make up missing subjects in any of the following ways:

- (a) complete appropriate courses with a C or better in adult school or high school summer sessions;
- (b) complete appropriate courses in college with a C or better (one course of three semester [four quarter] units will be considered equivalent to one year of high school study); or
- (c) earn acceptable scores on specified examinations.

Transfer applicants with 56 or more semester (84 quarter) units can satisfy the preparatory subject requirements by completing, with a C or better, one of the following alternatives:

1. 1987 or earlier high school graduates: the CSU general education requirements in communication in the English language (at least 9 semester units) and mathematics (usually 3 semester units);
2. 1988 and later high school graduates: 30 semester (45 quarter) units, with a "C" (2.0) or better in each course, to be chosen from courses in English, arts and humanities, social sciences, science, and mathematics of at least equivalent level to courses that meet general education or transfer curriculum requirements. Students must complete all CSU general education requirements in communication in the English language (at least 9 semester units) and mathematics (usually 3 semester units) as part of the 30 unit requirement. Appropriate flexibility will be provided for applicants to certain high-unit majors identified in the *CSU Review*. That flexibility will be reported in the *Review* as soon as it is determined.

Students should consult a CSU admissions office for further information about alternative ways to satisfy subject requirements.

Honors Courses

Grades in up to eight semester courses, taken in the last two years of high school, that are designated honors in approved subjects receive additional points in grade-point-average calculations. Each unit of A in approved courses will receive a total of 5 points; B, 4 points; C, 3 points; D, 1 point; and none for F grades.

Test Requirements

Freshman and transfer applicants who have fewer than 56 semester or 84 quarter units of transferable college work must submit scores from either the Scholastic Aptitude Test of the College Board (SAT) or the American College Test Program

(ACT). Applicants may get registration forms and the dates for either test from school or college counselors, a campus Testing Office or may write to:

The College Board (SAT)
Registration Unit, Box 592
Princeton, New Jersey 08541

or

American College Testing Program (ACT)
Registration Unit, P.O. Box 168
Iowa City, Iowa 52240

TOEFL Requirement

All undergraduate applicants, regardless of citizenship, whose preparatory education was principally in a language other than English must demonstrate competence in English. Those who have not attended for at least three years schools at the secondary level or above where English is the principal language of instruction must earn a minimum score of 500 on the Test of English as a Foreign Language (TOEFL). Individual campuses may require a higher score.

Health Screening

All new and readmitted students, born after January 1, 1957, will be notified of the CSU requirement to present proof of measles and rubella immunizations. This is *not* an admissions requirement, but shall be required of students by the beginning of their second term of enrollment in CSU. California State University, San Bernardino requires that new and readmitted students present proof of immunizations in advance of or during the first quarter of attendance at CSUSB or registration for subsequent quarters will be prohibited.

Other persons subject to these screening provisions include:

- Students who reside in campus residence halls;
- Students who obtained their primary and secondary schooling outside the United States;
- Students enrolled in dietetics, medical technology, nursing, physical therapy, and any practicum, student teaching, or field work involving preschool-age children, school-age children, or taking place in a hospital or health care setting.

The Student Health Center shall provide immunizations without cost to those students unable to obtain acceptable proof of immunizations.

Adult Students

As an alternative to regular admission criteria, an applicant who is 25 years of age or older may be considered for admission as an adult student if he or she meets the following basic conditions:

1. Possesses a high school diploma (or has established equivalence through either the Tests

of General Educational Development or the California High School Proficiency Examination).

2. Has not been enrolled in college as a full-time student for more than one term during the past five years.
3. If there has been any college attendance in the past five years, has earned a C average or better.

Consideration will be based upon a judgment as to whether the applicant is as likely to succeed as a regularly admitted freshman or transfer student and will include an assessment of basic skills in the English language and mathematical computation.

International (Foreign) Students

The CSU must assess the academic preparation of foreign students. For this purpose, "foreign students" include those who hold U.S. visas as students, exchange visitors, or in other nonimmigrant classifications.

California State University uses separate requirements and application filing dates in the admission of foreign students. For these purposes, foreign students are residents of a country other than the United States or those who hold visas as students, exchange visitors or in other nonimmigrant classifications.

Applicants for admission as either graduates or undergraduates whose education has been in a foreign country should file an application for admission, official certificates and detailed transcripts of record from each secondary school and collegiate institution attended several months in advance of the opening of the quarter in which the applicant expects to attend. If certificates and transcripts are not in English, they should be accompanied by certified English translations. Credentials will be evaluated in accordance with the general regulations governing admission to California State University, San Bernardino.

An applicant whose education has been in a language other than English must take the Test of English as a Foreign Language (TOEFL). This test is administered in most foreign countries and test scores must be received by the University before admission to the University can be granted. Information as to the time and place at which this test is given may be obtained from: Educational Testing Service (TOEFL), Princeton, New Jersey 08540, U.S.A.

Foreign applicants must also submit a statement of financial responsibility to the Office of Admissions to be considered for admission to the University. Also, foreign students are required to submit evidence of adequate medical/hospital insurance to the international student advisor.

Arrangements for housing should be completed before the student's arrival on the campus. Detailed information regarding housing may be ob-

tained from the director of housing, California State University, San Bernardino. Scholarship aid for entering students is limited; no scholarships are specifically reserved for students from another country.

Upon arrival at California State University, San Bernardino the student should obtain an appointment as early as possible with the International Student Services Office.

Admission of Postbaccalaureate and Graduate Students

Requirements pertaining to the admission of postbaccalaureate and graduate students are contained in the section on Graduate Studies, Page 313.

Returning Students

Students in good standing may be readmitted to the University after an absence of one term by notifying the Registration Office. The application and fee of \$55 are required if the student was not enrolled in any of the three terms (excluding summer session) prior to the term for which the student is seeking admission or if the student was enrolled in another institution during the absence from the California State University, San Bernardino. (See Leave of Absence, Page 52.)

Other Applicants

An applicant not admissible under one of the above provisions should enroll in a community college or other appropriate institution. Only under the most unusual circumstances will such applicants be permitted to enroll in the University. Permission is granted only by special action of the University.

Transfer of Credit

A maximum of 70 transferable semester units (105 quarter units) of work taken at a community college can be applied toward the requirements for a degree from the University. No upper-division credit may be allowed for courses taken in a community college. No credit may be allowed for professional courses in education taken at a community college, other than an introduction to education course.

The Office of Admissions will evaluate previous college work to determine its applicability to the requirements of the University. All undergraduate degree candidates will be issued a credit summary, indicating requirements which remain unfilled. Once issued to a student, the credit summary remains valid as long as the student matriculates at the date specified, pursues the objective specified, and remains in continuous attendance. Students will not be held to additional graduation require-

ments unless such requirements become mandatory as a result of changes in the California Code of Regulations or the California Education Code.

Credit for work completed at institutions of recognized accreditation will be accepted toward the satisfaction of degree requirements at the University within limitations of residence and major requirements, community college transfer maximums, and course applicability.

Concurrent Enrollment—once a student has matriculated at this University, only those courses subsequently taken elsewhere that the University has articulated as being equivalent to courses offered here may be accepted as fulfilling University major or general education requirements. Students planning to take courses off campus must complete a concurrent enrollment/summer session contract and file it with the Office of Admissions, giving sufficient time to receive a response prior to registering for any off-campus course work. See page 51 for concurrent enrollment at other CSU campuses.

Credit for Standardized External Examinations and Systemwide Examinations

The University shall grant four and a half quarter units of credit for each of the following College Level Examination Program (CLEP) examinations passed at the 50th percentile, provided the examination was not taken previously within the past term and that degree credit has not been granted for previous course work at the equivalent or at a more advanced level than for the examination in question.

U.S. History
Social Science
Biological Science
Physical Science
Mathematics (1975 edition)
Fine Arts
Literature

The University may also grant credit and advanced standing for CLEP subject examinations, using as minimum standards:

1. That the student submit a score at or above the 50th percentile in the norming group who earned a mark of C or better;
2. That equivalency to CSUSB courses be determined by the appropriate academic department;
3. That college credit shall have not been previously earned in the courses in question.

Questions regarding the acceptance of other standardized external examinations should be directed to the Office of Admissions.

In no case will credit awarded through external examinations count towards residence credit.

English Equivalency Examination—Students passing the California State University English

Equivalency Examination shall be awarded a total of 9 quarter units of credit for English 101 and English 170, provided credit has not been granted previously at the equivalent or at more advanced levels. Further, those who pass this optional examination are exempt from the requirement to take the English Placement Test.

The total amount of credit earned on the basis of externally developed tests which may be applied to a baccalaureate degree shall not exceed 45 quarter units, except that advanced placement credit is excluded from the limit.

Credit by Advanced Placement

Students who have successfully completed courses in the Advanced Placement Program of the College Entrance Examination Board (defined as receiving a score of 3, 4 or 5) shall be granted credit for each advanced placement course toward graduation, advanced placement in the University's sequence of courses and credit for curriculum requirements.

Credit for Extension and Correspondence Courses

A maximum of 36 quarter units of credit earned through extension and correspondence courses may be applied to a baccalaureate degree program. A maximum of 13 quarter units of graduate credit earned through extension registration may be accepted toward a master's degree program. No credit so earned may be used to satisfy the University residence requirement.

Only those credits will be accepted for transfer which are acceptable toward a degree or credential at the institution offering the courses.

Credit for Military Service

The University grants lower-division undergraduate credit for completion of basic training in the armed forces of the United States. This credit is applied to the physical education and general health requirements.

A limited amount of additional credit may be granted to students who have completed certain service schools in addition to basic training. This credit is allowed on the basis of recommendations of the Commission on Educational Credit and Credentials of the American Council on Education and must be documented on a DD-214 or DD-295.

Courses equivalent to English 101, 495 and the general education math requirements must be completed with a grade of C or better.

The total amount of credit earned on the basis of externally developed tests and through recommendations of the commission, which may be applied to a baccalaureate degree, shall not exceed 45

quarter units, except that advanced placement credit is excluded from the limit.

Admission to Teaching Credential Programs

Admission to the University as a student does not constitute admission to a teaching credential program. Students who intend to work toward credentials also should make application to the School of Education of the University.

Admission as an Auditor

A student who wishes only to audit a course instead of enrolling for credit must complete a statement of residence issued by the Office of Admissions and Records. Auditors must pay the same fees as would be charged if the courses were taken for credit. Enrollment as an auditor is subject to the approval of the instructor. A student registered as an auditor may be required to participate in any or all classroom activities at the discretion of the instructor. Credit for courses audited will not be subsequently granted on the basis of the audit. Transcripts are not issued for students enrolled as auditors only.

Permission to register as an auditor is by appointment with the Registrar after walk-through registration.

Admission to Summer Session

Students interested in attending summer session only do not need to file an application for admission to the University. Instructions for applying for summer session only are included in the Summer Session Bulletin. Coursework that is numbered 100-699 and completed during the regular Summer Session is considered resident credit. Attendance at summer session does not automatically constitute admission to the University for ensuing regular terms. See page 72 for additional information.

Readmission of Previously Disqualified Students

After receiving notice of disqualification, a student may petition the associate dean of academic services for readmission to the University on probation. All petitions for readmission must be submitted to the Office of the Associate Dean of Academic Services according to the following schedule:

<i>Petition for:</i>	<i>Petition on file on or before:</i>
Fall	August 1
Winter	November 1
Spring	February 1

Admission on Academic Probation

An applicant with advanced undergraduate standing who does not meet the requirements stated above is eligible for admission on probation, if, in the opinion of the proper University authorities, he is likely to succeed in college.

Ordinarily, consideration for probationary admission is granted only to the mature applicant who, while his total college record does not meet the admission requirements, has demonstrated sufficient academic ability through college work recently completed elsewhere.

Applicants who are admitted with a grade-point deficiency are given probationary status and are subject to the probation and disqualification regulations as stated on Page 55. A student admitted on probationary status may be restricted by his advisor to a limited program.

Determination of Residence

The determination of whether a student qualifies as a resident for admission and tuition purposes is made by the University after review of a residence questionnaire, designed to provide necessary information including the applicability of any exceptions. A statement summarizing the principal rules regarding residency determination and their exceptions is included in the appendix.

Use of Social Security Number

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

Evening Office

Late-Day Classes

Courses offered in the late afternoon and evening are in every respect the equal of courses offered earlier in the day; they have identical prerequisites and requirements and they confer equal credit. Late-day classes have proved to be of convenience to regular and part-time students, teachers, business people and others in the community. The proportion of late-day classes has been increasing and stands currently at more than one-third of all classes.

Evening Office

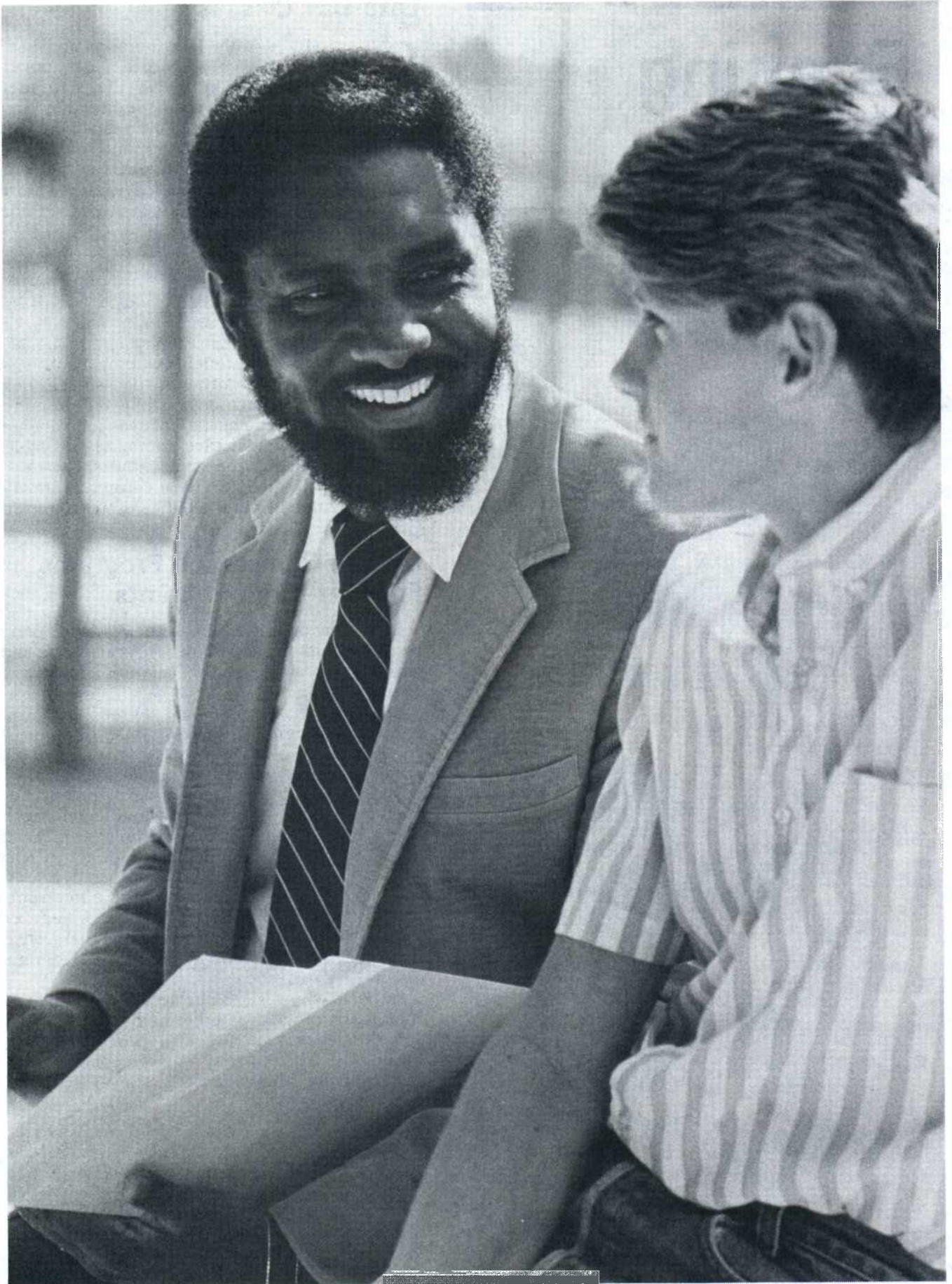
During the regular academic year, the University maintains an office to assist evening students. This office, located in the Pfau Library, telephone 880-5035, provides these students with many of the services usually offered during the day, such as help with University regulations, adding and dropping courses, graduation checks, changes in major and parking permits. This office also makes available general information about the University's academic programs and activities. Further information may be obtained from the Office of Academic Services.

Degree Completion Programs For Part-Time Students

Increasing opportunities are being developed for part-time students to complete baccalaureate and master's degree programs by attending late-day classes.

Presently offered in the late afternoon and evening is a sufficient range of upper-division course work to complete a major in administration, criminal justice, economics, English, geography, health science, history, human development, humanities, human services, industrial technology, liberal studies, mathematics, nursing, political science, psychology, social sciences, sociology, Spanish and vocational education. At the graduate level, master's degree programs are available in business administration, public administration, biology, education, rehabilitation counseling, criminal justice, English composition and health services administration.

Students who wish to pursue a late-day degree-completion program in other fields should consult with the department of their proposed major regarding the availability of required courses and then apply for admission to the University in the usual manner.



Fee Schedule 1991-92

Students are required to pay registration fees at registration. Tuition is not charged to legal residents of California.

Checks will be accepted at registration only for the amount of fees due. VISA and Master Card bank credit cards may be used for payment of student fees above \$50. The application, identification card and late charge fees are nonrefundable.

The following reflects the fees and expenses for the quarter system in effect when the Bulletin was printed. They are subject to change:

All students

Application fee (nonrefundable, payable by check or money order at time of applying)	\$55.00
Facilities fee	2.00
State university fee (all students)	
0-6 units	154.00
6.1 or more units	268.00
Associated Students, Inc., fee	
Fall	14.00
Winter	11.00
Spring	11.00
Summer	5.00
Student quarterly identification card fee (nonrefundable) ..	1.00
Student photo identification (library card) fee	2.00
Student union fee:	
Fall	26.00
Winter	22.00
Spring	22.00
Summer session	9.00
Instructionally related activities fee:	
Fall	8.00
Winter	6.00
Spring	6.00

Nonresidents (foreign and domestic)

Tuition (in addition to other fees charged all students):	
per unit	137.00
one-half unit	68.50

Residence halls (for academic year)

Room and board (19 meals per week), double room	4,172.00
Room and board (19 meals per week), single room	4,753.00
Room and board (15 meals per week), double room	3,995.00
Room and board (15 meals per week), single room	4,565.00

Summer session fee

Registration fee	25.00
Per quarter unit of credit	60.00
Field work (per unit)	120.00
Lab work (per unit)	70.00
Student Teaching (per unit)	77.00

Special fees

Credential fee	60.00
Art fee, certain studio courses	5.00-30.00
Late registration	25.00
Failure to meet required appointment or time limit	5.00
Diploma fee	5.00
Diploma late/refile fee	3.00
Commencement fee	10.00
Certificate fee	10.00

Parking fees	
Quarter: Four-wheel vehicle.....	36.00
Two-wheel vehicle (includes mopeds)...	9.00
Summer Session: Four-wheel vehicle (per week)...	3.60
Two-wheel vehicle (per week)90
Check returned for any cause	10.00
Replacement of registration packet	2.00
Transcript of academic record	
Single transcript	4.00
Additional transcripts prepared at the same time, up to 10 transcripts	2.00
Additional transcripts prepared at the same time that exceeds the first 10 transcripts	1.00
Library fees	schedule posted at Library circulation desk
Master's degree thesis	contact Office of Graduate Studies

NOTE: Fees subject to change without advance notice.

State University Fee

A state university fee has been established by the trustees of The California State University to provide financing for various student services programs not covered by state funding.

Alan Pattee Scholarships

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

Veterans' Dependents Exemptions

Certain dependents of U.S. veterans with service-connected disabilities and veterans who have been killed in service or died of a service-connected disability may be eligible for waiver of University fees. The annual income of the surviving parent cannot exceed \$5000. Further information is available from the veterans certification clerk.

Refund of Fees

Fees may be refunded only as authorized by Sections 41803, (parking fees), 41913 (nonresident tuition), 42019 (housing charges), and 41802 (all other fees) of Title 5, California Code of Regulations. Whether a fee may be refunded and the circumstances under which a refund is possible vary depending on the particular fee involved. Requirements governing refunds may include such matters as the reason (for example, death, disability, compulsory military service), the number of days of instruction which have elapsed before application for refund is made (for example, during regular

quarters, fall, winter, and spring requests for refund of state university fee, Associated Student, Inc. fees, Student Union fees, instructionally related activities fee and facilities fee must be made no later than 14 calendar days following the start of regular classes), and the degree to which the campus has provided the services for which the fee is charged. Details about refunds and the appropriate procedure to be followed may be obtained from the Accounting Office. The last day for refund of fees for each term appears in the class schedules. For refund policy during summer session, refer to the Summer Session Bulletin. For refund policy of Extended Education courses, consult the most recent Extended Education Bulletin.

Upon a student's withdrawal from all classes, the state university fee, the Associated Students fee, the Student Union fee, the Instructionally Related Activities fee, and the facilities fee may be refunded if written application for refund, on forms provided by the registrar, is submitted to the Accounting Office not later than 14 calendar days (includes Saturdays, Sundays and holidays) following the first day of classes. However, a fee shall be retained to cover the cost of processing.

Students who make changes to their program resulting in a lower fee category may receive a refund consisting of the difference in the higher and lower state university fee, except that a fee will be retained to cover the cost of processing. For further details and exact fees, refer to the quarterly class schedules.

Nonresident tuition is refunded on a prorated basis during the first four weeks of instruction according to the following schedule: 100% before or during the first week of instruction, 75% during the second week, 50% during the third week, 25% during the fourth week. No refund is available after the fourth week.

Parking fees are refunded, upon surrender of the decal, according to the following prorated schedule. Regular quarter: approximately 66% during the first 25 calendar days of the quarter, approximately 33% during the 26th through 50th calendar days, no refund after the 50th day. Summer session (based on calendar days commencing on the day instruction begins): 66% refunded during the first 10 days, 33% during the 11th through 20th days, no refunds after the 20th day.

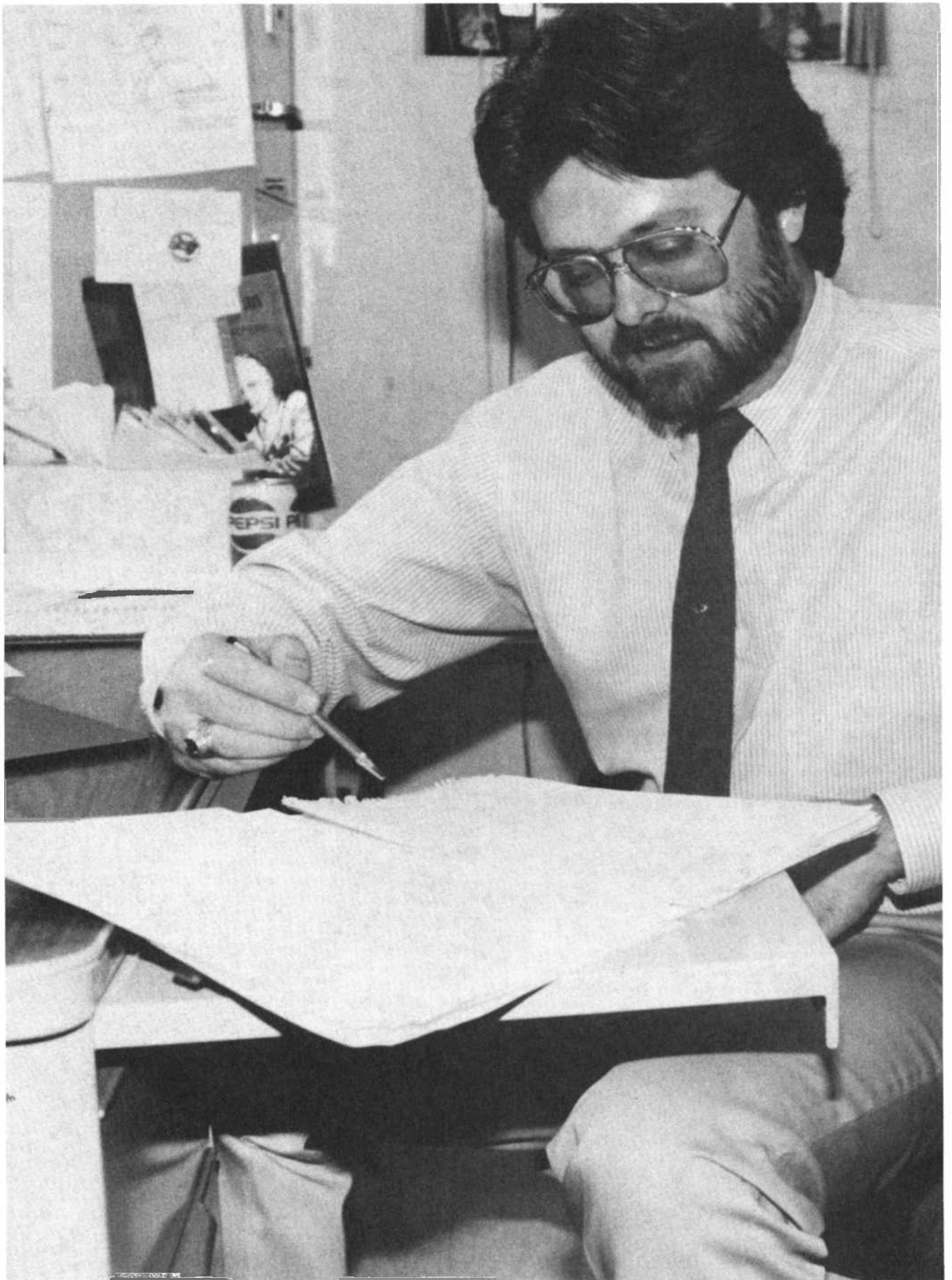
Estimated Costs per Quarter

It is estimated that full-time students each quarter pay about \$200 for books and \$335 to \$344 for fees plus parking costs.

Debts Owed to the University

Should a student or former student fail to pay a debt owed to the institution, the institution may "withhold permission to register, to use facilities for which a fee is authorized to be charged, to re-

ceive services, materials, food or merchandise or any combination of the above from any person owing a debt" until the debt is paid (see Title 5, California Code of Regulations, Sections 42380 and 42381). For example, the institution may withhold permission to receive official transcripts of grades from any person owing a debt. If a student believes that he or she does not owe all or part of an unpaid obligation, the student should contact the campus accounting office. The accounting office, or another office on campus to which the student may be referred by the accounting office, will review the pertinent information, including information the student may wish to present, and will advise the student of its conclusions with respect to the debt.



Academic Regulations

All students who register at California State University, San Bernardino in resident study for either the fall, winter or spring quarter must first be admitted to the University by the Office of Admissions.

No student may attend classes until his or her registration has been completed.

Registration is complete only when official programs are properly filed and all fees are paid. Students are required to make all payments on the regularly announced days.

Students are granted credit only for those courses in which they are formally registered and are responsible for completing all courses under their name on the CAR schedule confirmation list, except those courses they officially change by filing a change of program with the Office of Admissions and Records.

Class Level of Students

Students are classified at the end of each quarter according to total earned credits accepted for transfer and/or completed at California State University, San Bernardino as follows:

<i>Status</i>	<i>Units earned</i>
Lower division	
Freshman	0-44.9 quarter units
Sophomore	45-89.9 quarter units
Upper division	
Junior	90-134.9 quarter units
Senior	135 quarter units or more
Postbaccalaureate	Holding baccalaureate degree from an accredited college and not pursuing a graduate degree program
Unclassified	No degree or credential objective
Classified	Pursuing a credential
Graduate	Postbaccalaureate student pursuing a graduate degree
Conditionally classified.	Completing prerequisite requirements
Classified	Admitted to the degree program

Advising

Students have the opportunity to meet with a faculty advisor (counselor) each term for help in planning their academic programs and schedules of classes. Usually, the faculty advisor comes from the same area as the student's major field. To make contact with an advisor, call the appropriate department office as listed in the class schedule which also gives information about the University's certificate and credential programs. Students who have

not yet declared a major should contact the Advising Center for an appointment. All students should confer with an advisor on a regular basis.

All freshmen are required to meet with an advisor each term prior to registration. Failure to do so will result in a denial of a student's registration request. All new transfer students are required to meet with an advisor prior to their first registration. Failure to do so will result in a denial of a student's registration request.

First-term undergraduate students who are placed on academic probation must confer with an Academic Advising Center advisor prior to registration and adhere to that advisor's specific recommendations designed to improve their grade point average. Faculty advisors are available during special advising periods, which are held before registration each quarter. (See class schedule for dates.) Advisors are also willing to see students during their office hours throughout the term.

Academic Course Load

Students planning to finish their undergraduate degree requirements in four years by attending three quarters each year must complete a minimum of 15–16 units per quarter. To be considered full-time for veteran's benefits and financial aid purposes, an undergraduate student must enroll in a minimum of 12 units. With their advisor's consent, students may carry up to 19.5 quarter units per term.

A student may carry 20 or more units only upon petition to the school dean. Course overload cards are available in the school dean's office. Normally, petitions are approved only if both the grade-point average for the previous term and the overall grade-point average are 3.0 or better.

Mandatory Basic Skills

College level skills in composition and computation are basic to success at the University. All new students who have not completed Freshman Composition and the General Education mathematics requirement (or equivalent courses) must enroll in either a Freshman Composition course (English 101) or a General Education mathematics course (Mathematics 110, 115, 120, or 211) no later than their second quarter of attendance. They must then remain enrolled in one or the other course until both requirements have been completed. Students who do not qualify for enrollment in those courses must enroll in appropriate developmental courses (English 85 or 95; Mathematics 75, 85, or 90 depending on EPT/ELM scores) until they are qualified to enroll in the General Education courses.

Accelerated Progress

Some students choose to accelerate progress toward completion of their objectives through a pro-

gram of independent study, summer course enrollment and registration for additional course credits.

In addition, credit-by-examination procedures permit students to demonstrate their mastery of the content of local courses, as described below, or courses offered through the Advanced Placement Program or the subjects tested by the College Level Examination Program, as described on Page 40.

In some instances, registration in summer sessions permits the completion of one full quarter, 16 units, of degree-applicable work.

Students wishing to enroll for additional course work during the academic year should follow the procedures described in the sections on academic course loads, above.

Credit for Comprehensive Examination Courses

Any student admitted to this campus may earn degree credit for no more than three comprehensive examination courses regardless of the total units earned in those courses. This maximum is to be counted separately from all other out-of-class curriculum options (for example, credit by examination). The student's major discipline may further restrict the number of comprehensive examination credits acceptable toward the major.

In cases where the subject matter of a comprehensive examination course duplicates that of a course taken previously, the University's Repeat of Course policy will apply (see Page 56). In no instance will duplicate credit be awarded for a repetition of subject matter.

Credit by Examination

A student may petition to receive course credit by examination. In this manner a student who already possesses, or through independent study is able to acquire, the skills or knowledge of the ideas and concepts of a course can accelerate progress through the University. Students must register for the examination in the office of the school or department concerned before the first day of classes of the term in which the course is offered. Some presumptive evidence is required to indicate that the student has a reasonable chance of passing the examination. The student must complete the examination within the first two weeks of the term. Courses may be designated by a school, department or appropriate unit as inappropriate to be challenged by examination on the basis that course content is not suited to such examination.

No fee is charged for these examinations. A student who passes an examination is given the grade of CR (see Page 54 for definition of this grade) for that course, provided that this does not duplicate credit counted for his admission to the University. No official record is made of failures in these examinations.

Examinations for course credit are given under the following restrictions:

1. They may be taken only by students currently enrolled at the University in courses other than the one(s) to be challenged.
2. They may not be taken by students who have received credit for work in the subject in advance of the course in which the examination is requested, except where permission is granted by the school or department concerned.
3. They may not be taken to raise grades or remove failures in courses.
4. Once students have successfully challenged a course, they may not subsequently enroll in the course for credit. Units attempted, units earned and grade points for any such enrollment will be disallowed.
5. A maximum of 40 units of credit may be received through such examinations.
6. A student may repeat an examination for credit only upon approval of the associate vice president for academic programs.
7. Credit by examination may not be used to fulfill the minimum residence requirement.
8. The course must be offered during the term in which the examination is taken. However, students may not enroll in a course they plan to challenge. If the challenge is unsuccessful, the student may add the course subject to the regulations for adding a class printed in the quarterly class schedule.

Exact times and places of examinations are announced by the departments concerned. Students who wish to take an examination should consult the departmental office well in advance.

Credit by examination cannot be earned during the summer sessions.

For regulations concerning credit by examination in graduate programs refer to Page 319.

Concurrent Enrollment

Procedures have been established whereby a student in good academic standing at the California State University, San Bernardino who has completed a least 18 quarter units of work at the University and who is eligible to register as a continuing student for the immediately subsequent term may enroll concurrently at another campus of The California State University system. The procedure enables a student to attend another campus within the system, on a term-by-term basis, without submitting the formal application for admission form and paying the \$55 application fee. For information regarding the procedure, contact the Registrar.

To guarantee acceptance, for degree credit, of work taken at institutions other than those within The California State University system, a student must complete a concurrent enrollment/summer session contract. These contracts are reviewed by the evaluators in the Office of Admissions.

Cross-Registration with University of California at Riverside

On a limited basis, students may be permitted to take advantage of courses offered at the nearby University of California campus in Riverside. Note that this opportunity is available only for undergraduate courses not normally offered at CSUSB and is subject to availability of space at UC Riverside after their early registration process is completed.

The following conditions apply:

1. A limited number of students may participate.
2. A limit of one course per student per quarter.
3. The student is matriculated and currently enrolled, in a degree program.
4. Student must pay sufficient (full) fees at the Home Campus. No additional registration fees will be required at the Host Campus.
5. The desired course is not offered at the Home Campus.
6. Student must be in good academic standing.
7. Student must observe all academic deadlines and regulations of the Host Campus.
8. Enrollment is subject to space availability and consent of the instructor.
9. Student must meet course prerequisites of the Host Campus.
10. Records of grades will be maintained by the Host Campus and forwarded to the Home Campus. The Home Campus will include the "transfer" work on the student's transcript, with a footnote indicating that the course was taken through the exchange program.
11. Residence credit will be granted for courses taken by CSUSB students under this arrangement.
12. Cross-registration students will have the use of library facilities at the Host Campus. The student is not eligible for other student services or facilities.

Check with the University Registrar for more details and application form.

ROTC Programs

ROTC is a two or four year program which leads to a commission in the US Army and trains students for positions of responsibility in the active Army, Army Reserve, or National Guard. The University has the only ROTC program in San Bernardino and Riverside counties. Scholarships, simultaneous enrollment in the National Guard or Army Reserve, specialized summer training, and other challenging activities are some of the benefits of the program. Students may attend ROTC classes on this campus, and attend any of the other two- or four-year col-

leges in the area. For more information about Army ROTC at CSUSB, consult the Military Science portion of the Bulletin, or contact the ROTC office, Student Services Building, Room 124, 880-5533.

A cooperative arrangement permits students interested in careers in the Air Force to complete their academic requirements on this campus, while enrolling in Air Force ROTC at the University of California, Los Angeles. For more details, contact UCLA's Department of Aerospace Studies at (213) 825-1742.

Class Schedule

An official class schedule, prepared each quarter by the University, includes the registration schedule, procedure for registration, fees, classes offered by hours and instructors, and other pertinent registration information. The schedule is available just prior to advisement and early registration each quarter and may be purchased at the Coyote Bookstore. Students are responsible for being aware of information contained in the class schedule.

Late Registration

The dates of late registration each term will be announced in the class schedule. The University calendar, Pages 4-5, lists registration dates. Late registrants may find themselves handicapped in arranging their programs due to closed classes. A \$25 late registration fee is required.

Adding Classes

Students who participate in Computer-Assisted Registration may add classes during priority drop/add. (See the class schedule.) Beginning with the first day of the late registration period, all students may add classes, subject to appropriate approvals, continuing up to and including the last day to add classes. (See the class schedule.)

Auditing Courses

Enrollment in any course as an auditor shall be permitted only after students otherwise eligible to enroll in the course on a credit basis have had an opportunity to do so and only upon consent of the instructor. Auditors are subject to the same fee structure as credit students, and regular class attendance is expected.

Credit for courses audited will not subsequently be granted on the basis of the audit. Transcripts are not issued for audited courses.

Once enrolled as an auditor, a student may not change to credit status unless such a change is requested within the first week of class and is approved by the instructor. Students registered for credit may change their status from that of an enrolled student to that of an auditor with the approval of the instructor concerned and within the first three weeks of class.

Forms for such changes may be obtained at the registration counter in the Student Services Building.

Class Attendance

Regular attendance is expected of all students enrolled at the University. The instructor of each class sets specific standards expected of students.

A student absent from classes is responsible for arranging to make up missed class work and assignments. In cases of prolonged absence, the student should investigate the feasibility of withdrawal from the University. (See below.)

Withdrawal from a Class or the University

(See class schedule for details)

Students are assigned grades for every course in which they have enrolled.

If a student withdraws officially from the University or from a class by the end of the third week of class (see University calendar for exact date), the course is not recorded on the permanent record.

Withdrawal after the third week, and prior to the last three weeks of instruction, is permissible only for serious and compelling reasons. Permission to withdraw during this time period must be obtained from the instructor and the school dean.

Withdrawal will not be permitted during the final three weeks of instruction except in cases such as accident or serious illness where the cause of withdrawal is due to circumstances clearly beyond the student's control and the assignment of an incomplete grade is not practicable. Withdrawal during this period requires the approval of the instructor, the school dean and the associate dean, academic services.

A grade of W will be assigned for approved withdrawals occurring after the third week of instruction.

Leave of Absence

The leave of absence policy covers interruptions which are involuntary (medical) or voluntary (military or planned educational leave) if related to the undergraduate student's educational objective. With an approved leave of absence, the student may be absent from the campus without losing rights to specific degree requirements under an earlier catalog, which may be more advantageous for the student.

Petitions for leaves of absence should be filed in advance of the interruption in enrollment. While medical and military leaves may be considered retroactively if supported by individual circumstances, planned educational leaves cannot since they constitute an agreement or "contract" which must be set in advance.

An application for readmission must be filed by students returning from leaves of one or two terms only if another college or university was attended during the absence.

Students returning from a medical or military leave of absence of more than two terms must file an application for admission and must also pay the current application fee. The maximum duration of a Planned Education Leave is two calendar years, with no application fee charged at readmission within the two-year limit. Applications for readmission must be filed within the filing period for the term of return. Filing periods for fall term begin the preceding November 1, for winter term the preceding June 1, and for spring term the preceding August 1.

Students who do not return to CSU, San Bernardino at the conclusion of their planned leaves and those who enroll elsewhere without permission of the Admissions Office will be considered to have withdrawn from the University at the end of their last term of regular enrollment.

Leaves of absence will not be approved for students subject to disqualification or dismissal due to academic deficiencies or disciplinary action. Disqualified students reinstated immediately or readmitted after one term may retain catalog rights.

Students not completing any degree applicable course work or who are enrolling only in Summer Session or extension courses or who are auditing courses are not eligible for leaves of absence.

Medical Leave of Absence: requests must be accompanied by a statement from a medical doctor explaining why the student must interrupt enrollment. No limit exists on the number of terms of absence allowed, except that leaves for pregnancy are restricted to the term of delivery unless verified medical circumstances indicate a longer time is required for a recuperation. An application fee is charged at readmission for a leave of three or more terms.

Military Leave of Absence: requests must be accompanied by a copy of military orders indicating induction date. Twelve terms of absence are the maximum that can be approved. An application fee is charged at readmission for a leave of three or more terms.

Planned Educational Leave of Absence: is defined as a planned interruption or pause in a student's regular education during which the student temporarily ceases his or her formal studies at CSU, San Bernardino to pursue other activities that contribute to particular educational goals and objectives. This will not jeopardize the rights and privileges normally associated with continuous attendance. The student must plan to return to CSU, San Bernardino at the end of the leave. Such activities may be for the purpose of clarifying or enriching educational goals and may include travel for educational purposes, on-the-job experience in the area of vocational or educational opportunities,

or undertaking expanded responsibilities in an activity related to the student's educational or career goals.

A planned leave may also be taken to allow time for the solution of personal problems and thus enhance the prospect of successful completion of the student's academic program. No application fee is charged at readmission for a leave within the two year limit.

Final Examinations

Written examinations of two hours' duration are held at the close of each term. In courses extending over more than one term, the examination in the concluding term may also cover work done in the preceding term or terms. Examinations may not be taken before or after the scheduled period nor may the time of an examination be changed without authorization by the dean of the appropriate school. Permission to take a final examination with a different section in the same course may be granted by the dean of the appropriate school with the consent of the instructors concerned. Failure to take or to pass any final or other course examinations will result in such deficiencies as instructors may assign.

Final Grade Report

Final grade reports will be available to students within a few weeks after the last day of each quarter.

Grievance Procedures

Information concerning academic matters may be obtained from the Office of the Associate Dean, Academic Services. Generally, a grade grievance must be initiated by the student within no more than 40 calendar days after the grade is recorded. The complete policy statement is available from the Office of the Associate Dean, Academic Services.

Information concerning nonacademic matters may be obtained from the Office of the Vice President for Student Services. Advisement and nonacademic grievance policies are available there.

Grades

The grade symbols used at the University are as follows:

<i>Grade symbol</i>	<i>Performance level</i>	<i>Grade points per quarter hour</i>
A	Excellent	4.0
A -		3.7
B +	Good	3.3
B		3.0
B -		2.7
C +	Satisfactory	2.3
C		2.0
C -		1.7

D +		1.3
D	Passing	1.0
D -		.7
F	Failing	.0
CR	Credit	
NC	No Credit	

All courses, except those specifically designated otherwise, will be graded on the A through F basis.

Grade-point averages are computed by dividing the number of grade points earned by the number of units attempted. Only units and grade points earned by a student while enrolled at this University are used to compute the resident grade-point average.

The following administrative grades carry no grade points and are, therefore, not used to determine a student's grade-point average. However, it should be pointed out that the Incomplete will be counted as an F if not removed within one calendar year from the date it was assigned.

I	Incomplete (Authorized)
RD	Report Delayed
SP	Satisfactory Progress
W	Withdrawal

The administrative grade of U carries no grade points but is included in determining units attempted. Thus, it is equivalent to an F.

Expanded Grade Symbol Definitions

A (Excellent): Meeting course requirements with a superior level of performance. A is recognized to be an honors evaluation.

B (Good): Meeting course requirements with a high level of performance.

C (Satisfactory): Meeting course requirements with an acceptable performance.

D (Passing): Meeting course requirements with minimally adequate performance.

F (Failing): Inadequate performance or not meeting course requirements.

CR (Credit): A satisfactory or better level of performance, equivalent to the grade of C (2.0) or better, has been demonstrated in meeting course objective. For graduate courses, equivalent to grade of B (3.0) or better.

NC (No Credit): Performance at an unsatisfactory or failing level, equivalent to a grade of C- (1.7) or less. For graduate courses, equivalent to a grade of less than B (3.0). Does not award credit for the course.

I (Incomplete): An Incomplete signifies that a portion of required course work has not been completed and evaluated in the prescribed time period due to unforeseen, but fully justified, reasons and that there is still a possibility of earning credit. It is the responsibility of the student to bring pertinent information to the instructor and to reach agreement on the means by which the remaining course

requirements will be satisfied. A final grade is assigned when the work agreed upon has been completed and evaluated.

An Incomplete must be made up within one calendar year immediately following the end of the term in which it was assigned. This limitation prevails whether or not the student maintains continuous enrollment. Failure to complete the assigned work will result in an Incomplete being counted as equivalent to an F (or an NC) for grade-point average computation. Note: In some instances the instructor may have indicated on the Incomplete Form a grade to be assigned in the eventuality that the remaining course work is not completed.

RD (Report Delayed): The RD symbol is used in those cases where a delay in the reporting of a grade is due to circumstances beyond the control of the student. The symbol is assigned by the registrar and is replaced by a more appropriate grading symbol as soon as possible. An RD is not included in the calculation of grade-point averages.

SP (Satisfactory Progress): The SP symbol is used in connection with courses which extend beyond one academic term. The symbol indicates that work in progress has been evaluated as satisfactory to date but that the assignment of a precise grade must await the completion of additional course work. Cumulative enrollment in units attempted may not exceed the total number applicable to the student's educational objective. All undergraduate work is to be completed within the time specified but not to exceed one calendar year of the term of first enrollment, and a final grade will be assigned to all segments of the course on the basis of overall quality. The time limitation for graduate degree theses may be up to two years but may not exceed the overall time limit for completion of all master's degree requirements. Extension of any time period requires prior authorization by the dean of graduate studies.

U (Unauthorized Incomplete): The symbol U indicates that an enrolled student did not withdraw from the course but failed to complete course requirements. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible. For purposes of grade-point average, this symbol is equivalent to an F.

W (Withdrawal): This symbol indicates that the student dropped the course. It carries no connotation of quality of performance and is not used in calculating grade-point average.

Policy on Nontraditional Grading

All courses are graded on an A through F basis, except those specifically designated as follows:

Credit/No Credit. Credit is awarded for grades equivalent to C or better. No credit is awarded for grades equivalent to C- or less.

ABC/No Credit. Grades awarded are A, A-, B+, B, B-, C+ or C. No credit is awarded for grades equivalent to C- or less.

Certain activity courses, independent study projects, and other courses serving special needs are not readily evaluated in the traditional A through F manner. The nontraditional Credit/No Credit grading allows faculty to award credit for satisfactory performance in an activity, rather than assign a letter grade when such performance cannot be evaluated traditionally.

Courses graded Credit/No Credit, whether taken at this or at another institution, may not be used to satisfy requirements for the major, except specific courses designated by the department to be graded Credit/No Credit.

Students who, because of a change of major or because of transfer from another institution or for any other reason, present courses in the major field which have been graded on a Credit/No Credit basis may, at the discretion of the department or other appropriate academic unit, be required to pass competency examinations at an acceptable level or to take prescribed alternate courses before being allowed to continue in the major.

A student may offer no more than 36 quarter units of work graded Credit/No Credit in satisfaction of the total units required in the student's baccalaureate degree program at California State University, San Bernardino. This number includes any combination of units graded Credit/No Credit earned at California State University, San Bernardino and any other institution or institutions, excepting that all units accepted for transfer credit from another institution at the time of the student's admission to the University may be used toward the satisfaction of the total units required for the baccalaureate degree. Acceptance for transfer credit by California State University, San Bernardino of 36 quarter units or more graded Credit/No Credit at another institution or institutions precludes the student from offering courses graded Credit/No Credit at California State University, San Bernardino, for satisfaction of units required for the baccalaureate degree.

Course grades of credit received under a credit-by-examination program are exempt from the 36-unit limitation.

Scholarship Standards for Undergraduates

For purposes of determining a student's eligibility to remain at the University, quality of performance toward the student's objective shall be considered. Such eligibility shall be determined by use of grade points and grade-point average.

- (a) An undergraduate student shall be subject to probation if, in any academic term, the student fails to maintain either a cumulative grade-point average or a grade-point average

at California State University, San Bernardino of at least 2.0 (grade of C).

- (b) An undergraduate student shall be subject to disqualification if while on probation the student's grade-point balance either cumulative or at California State University, San Bernardino displays a deficiency in excess of the number permitted for the student's class level pursuant to deficiency levels established by the chancellor.

Disqualification levels are as follows:

1. Lower-division student (fewer than 90 quarter units of college credit), 22.5 grade points below a 2.0 average in all units attempted or in all units attempted at California State University, San Bernardino;
 2. Junior (90 to 134.9 quarter units of college work), 13.5 grade points below a 2.0 average in all units attempted or in all units attempted at California State University, San Bernardino;
 3. Senior (135 or more quarter units of college work), 9 or more grade points below a 2.0 average in all units attempted or in all units attempted at California State University, San Bernardino.
- (c) An undergraduate student who is not on probation may be disqualified if at any time the student's cumulative grade-point average falls below 1.0 (grade of D) and, in the opinion of the appropriate campus authority, it is unlikely in light of the student's overall educational record that the resultant grade-point deficiency will be removed in subsequent terms.

A student disqualified for scholarship deficiency may not enroll in any regular term of the University without having successfully petitioned for readmission through the Office of the Associate Dean, Academic Services, and may be denied admission to other educational programs operated or sponsored by the University.

Administrative Academic Disqualification

An undergraduate or graduate student may also be placed on probation or may be disqualified by appropriate campus authorities for unsatisfactory scholastic progress regardless of cumulative grade-point average or progress points. Such action shall be limited to those arising from repeated withdrawal, failure to progress toward an educational objective and noncompliance with an academic requirement and shall be consistent with guidelines issued by the chancellor.

Repeat of Courses: Undergraduates

Students may repeat a course only once in order to have the first grade discounted and the grade from the second attempt used on their transcripts. The discounting of the grade in a repeated course is by petition only. Discounting means that, when computing grade-point averages required for graduation, the University will exclude units attempted, units passed (if any) and grade points (if any) for previous attempts. If a student repeats a course more than once, the subsequent grades will be averaged to determine cumulative grade-point averages. No more than five different courses may be discounted by repeating them. A course may not be repeated for the purpose of removing an incomplete. If a course with variable topics is repeated to discount a previous grade, the same topic (identified by specific course number *and* suffix) must be repeated.

Students should inquire at the Office of Records for a complete policy statement covering the repeat of courses.

Unless expressly allowed, credit may not be awarded for a course that has been previously completed, either at California State University, San Bernardino, or elsewhere, unless a petition is filed to discount the first attempt.

Academic Renewal

Under certain circumstances, a student may petition to have up to two semesters or three quarters of previous course work disregarded from all considerations associated with requirements for the baccalaureate degree. In order for this to happen the following conditions must be met:

1. The work to be disregarded must have been completed at least five years before the date of the petition to disregard it.
2. The student must demonstrate that it would be necessary to complete additional units and enroll for one or more additional terms in order to qualify for the baccalaureate if the request were not approved.
3. During the interval since completing the work to be disregarded, the student must have maintained a satisfactory record at CSUSB (22 units with at least a 3.0 GPA; 45 units with at least a 2.5 GPA; or 67 units with at least a 2.0 GPA).

Students seeking academic renewal should consult with the Associate Dean, Academic Services.

Plagiarism

Plagiarism is the presentation as one's own the ideas and writing of another. Plagiarism is academically dishonest and subjects the offending student to penalties up to and including expulsion. Stu-

dents must make appropriate acknowledgements of the original source where material written or compiled by another is used.

Declaring (or changing) a Major

Work in a major field of study is designed to afford students the opportunity to engage in intensive study of a discipline.

Students may declare a major at the time of admission.

Students entering the University as "undeclared" or those changing their majors should process a Change of Major form through the Office of Admissions. Students who declare a major or change from one major to another following admission will be held to either:

- (a) the current Bulletin for requirements of the *major* and to the Bulletin under which they entered for other college requirements (for example, general education), or
- (b) the Bulletin in effect at the time of graduation for *all* requirements.

Election of Graduation Requirements

A student remaining in continuous attendance in regular sessions and continuing in the same curriculum in this University, in any of the California community colleges, or in any combination of California community colleges and campuses of the California State University, may, for purposes of meeting graduation requirements, elect to meet the graduation requirements in effect at this University either at the time of entering the curriculum or at the time of graduation from this University, except that substitutions for discontinued courses may be authorized or required by the proper college authorities. (See Leave of Absence, Page 52.)

Postbaccalaureate Credit for Senior Students

A student, for the term (including summer) in which he or she receives the baccalaureate degree, will be granted postbaccalaureate credit for any course taken at California State University, San Bernardino numbered 300 or above which is not needed to meet undergraduate degree requirements. Students not wishing to receive postbaccalaureate credit for such courses must petition to have the work included in their undergraduate program. Postbaccalaureate credit will not be granted for courses numbered below 300 or for courses taken in advance of the last undergraduate term.

Summer Enrollment at Other Institutions

In instances where there might be a question about the acceptability of course work taken at another institution in the summer, students are advised to consult the department offering the equivalent course at this University.

Information for Issuance of Transcripts

Single transcripts are issued at a cost of \$4 per copy, payable in advance. (Refer to fee schedule in the class schedule or this Catalog for fees for multiple copies.)

All transcripts will be complete as of the date of issuance showing all work attempted at California State University, San Bernardino.

Copies are normally mailed one week after receipt of request. However, if the request specifies inclusion of grades just earned or verification of a degree just awarded, two to three weeks must be allowed beyond the end of the term for a transcript to be issued.

Access to Records

All student records, including recommendations, are kept by the University in accordance with the Family Educational Rights and Privacy Act of 1974, which allows students access to their records. Inquiries and concerns about this federal regulation should be directed to the Office of the Vice President for Student Services for further information.

Veterans Information and Enrollment Certification

California State University, San Bernardino, is approved for the training of veterans of the military services and their dependents under educational assistance programs, established by the state and federal governments. Applications for educational benefits may be obtained directly from the veterans certification clerk in the Registrar's Office.

Student enrollment certification is based on the following minimum unit loads for undergraduates:

Full time	12 quarter units
$\frac{3}{4}$ time	9-11.5 quarter units
$\frac{1}{2}$ time	6-8.5 quarter units

The University will certify course loads to the Veterans Administration based on the criteria above for units which are degree or objective applicable. Veterans enrolled less than half time are eligible for reimbursement of tuition and fees only.

Independent study and self-paced courses will be certified for monthly educational benefits when the student is concurrently enrolled in residence and independent study courses. The independent study and self-paced courses will be reported at full value up to a maximum of five units. Students enrolled in independent study or self-paced courses exclusively are eligible for reimbursement of tuition and fees only.



Undergraduate Degree Requirements

To be eligible for the bachelor's degree, a student must:

1. Complete a minimum of 186 quarter units of college credit. Some majors require more than 186 quarter units to a maximum of 198.
2. Complete 86 quarter units in general education distributed in the manner outlined in the following section titled General Education Program Requirements. Satisfactory scores on the English Placement Test and the Entry Level Mathematics Test are prerequisites for enrollment in the following general education courses: (Refer to Page 63.)
 - Eng 101. Freshman Composition
 - Math 110. College Algebra
 - Math 115. The Ideas of Mathematics
 - Math 120. Pre-Calculus Mathematics
 - Math 211. Basic Concepts of Calculus
3. Complete all requirements for a major, including at least 20 quarter units of upper-division course work in the major.
4. Complete at least 45 quarter units at this University. (Refer to University Residence Requirement for Graduation, Page 65.)
5. Complete at least 60 quarter units of upper-division work.
6. Earn a grade-point average of 2.0 (C) or better in all units used to fulfill the requirements of the major.
7. Earn a grade-point average of 2.0 (C) or better in all units attempted, and in all units attempted at the University.
8. Complete two quarter units of physical education course work as required in the general education program. Ten additional units of physical education activity courses (numbered 150 and below) for a total of 12 units maximum may be applied toward graduation.
9. Complete the upper-division writing requirement. (Refer to Page 64.)
10. Complete history, constitution and government requirement. (Refer to History, Constitution, Government Requirement, Page 64.)
11. Be recommended for graduation by the faculty of the University.

GENERAL EDUCATION PROGRAM

Requirements (86 units)

The general education requirements at California State University, San Bernardino are designed to assure that all graduates of the University, whatever their major, have acquired certain essential skills and a broad range of knowledge appropriate to educated persons in our society.

Lower-division courses are intended to foster an ability to think clearly and logically, to find and critically examine information, and to communi-

cate, at an appropriate level, orally and in writing; to acquaint students with the physical universe and its life forms and to impart an understanding of scientific methodology and of mathematical concepts and quantitative reasoning; to cultivate —through the study of philosophy, literature, languages, and the arts—intellect, imagination, sensibility and sensitivity; and to deal with human social, political and economic institutions and their historical background, with human behavior and the principles of social interaction. Upper-division courses include a further requirement in writing and new integrative capstone courses designed to provide students with an understanding of the interrelationships among disciplines and their applications to contemporary environments. Multicultural and gender issues are given special attention in these courses.

The purpose of general education is less to provide students with a number of possible avenues for specialization, than it is to make sure that all students will be able to write, speak and think clearly, to understand the issues on which they will have to make decisions, and to know something about themselves and the world in which they live.

The general education program requires a minimum of 86 quarter units.

No substitutions in the general education program are possible without prior approval of a petition submitted to the Office of Academic Services.

Requirements for General Education Program:

Note: Courses in Category A should be completed before a student reaches upper-division standing. For upper-division transfer students, this category should be completed within the first 32 units taken at California State University, San Bernardino.

A. Basic Skills Category (12 units)

1. *Written Communication:*

- Eng 101. Freshman Composition (4)
Hon 103. Language and Meaning (4)*

2. *Oral Communication:*

- Comm 120. Oral Communication (4)
Hon 103. Language and Meaning (4)*

3. *Mathematics:*

One course listed in the mathematics section of the natural sciences breadth area (category B1).

4. *Critical Thinking:*

Four units chosen from:

- Comm 180. Critical Thinking Through Argumentation (4)
Hon 103. Language and Meaning (4)*
Math 180. Critical Thinking Through Problem Solving (4)

- Phil 105. Critical Thinking Through Argument Analysis (4)
Phil 205. Critical Thinking Through Symbolic Logic (4)
Psyc 105. Critical Thinking Through Problems Analysis (4)
Soc 180. Critical Thinking About Social Problems (4)

B. Natural Sciences Breadth Area (20 units)

1. *Mathematics:*

Four units chosen from:

- Math 110. College Algebra (4)
Math 115. The Ideas of Mathematics (4)
Math 120. Pre-Calculus Mathematics (4)
Math 211. Basic Concepts of Calculus (4)

2. *Life Sciences:*

Five units chosen from:

- Biol 100. Topics in Biology (5)
Biol 200. Biology of the Cell (5)
HSci 120. Health and Society: An Ecological Approach (5)

3. *Physical Sciences:*

A minimum of five units chosen from:

1. Chem 100. Chemistry in the Modern World (5)
2. Chem 205. Fundamentals of Chemistry I: General Chemistry (5)
3. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
4. Geog 103. Physical Geography (5)
5. Geol 101. Physical Geology (5)
6. Phys 100. Physics in the Modern World (5)
7. Phys 103. Descriptive Astronomy (5)
8. Phys 121. Basic Concepts of Physics I (5)
9. Phys 221. General Physics I (5)

4. *Special Topics in Science and Technology:*

Two units chosen from:

- Biol 216. Genetics and Society (2)
Biol 217. Biology of Sexually Transmitted Diseases (2)
Chem 105. Chemicals in Our Environment (2)
CSci 121. Computer Technology and People (2)

5. *Integrative Capstone in the Natural Sciences:*

Four units chosen from:

- NSci 300. Science and Technology (4)
NSci 310. The Environment and Human Survival (4)
NSci 312. Scientific Contributions to the Development of Civilization (4)
NSci 314. Life in the Cosmos (4)
NSci 320. Energy (4)
NSci 325. Perspectives on Gender (*also counts in category H1*) (4)
NSci 351. Health and Human Ecology (4)

* Open only to students accepted in the University Honors Program. The entire Honors 103A, 103B, 103C sequence must be completed before the student will be granted General Education credit in any category.

Note: Students may receive credit for only one of the following courses:

Hum 325.	Perspectives on Gender
NSci 325.	Perspectives on Gender
SSci 325.	Perspectives on Gender

C. Humanities Breadth Area (20 units)

1. Arts:

Four units chosen from:

Art 200.	Studies in Art (4)
Hum 180.	The Art of Film (4)
Mus 180.	Studies in Music (4)
TA 260.	Introduction to Theatre (4)

2. Literature:

Four units chosen from:

Comm 281.	Literature of Rhetorical Discourse (4)
Eng 110.	World Literature I (4)
Eng 111.	World Literature II (4)
Eng 160.	World Drama (4)
Eng 170.	Studies in Literature (4)
Eng 281.	Literature of Rhetorical Discourse (4)
TA 160.	World Drama (4)
TA 212.	Oral Interpretation of Literature (4)

3. Foreign Language or Literature in Translation:

Note: Credit toward the foreign language or literature in translation category will only be awarded for:

FJan 102.	Independent Language Study II
Fren 102.	College French II
Ger 102.	College German II
Span 102.	College Spanish II
General education credit will be given in category H for:	
FJan 101.	Independent Language Study I
Fren 101.	College French I
Ger 101.	College German I
Span 101.	College Spanish I

To be eligible for general education credit for 102, a student must have less than two years of high school study of the language selected in category C3.

Four units chosen from:

FJan 102.	Independent Language Study II (4)
FJan 150.	Independent Intermediate Language Study (4)
Fren 102.	College French II (4)
Fren 150.	Intermediate French (4)
Fren 212.	Composition (4)
Fren 214.	Conversation (4)
Fren 216.	Introduction to Literary Texts (4)
Fren 290.	French Literature in English (4)
Ger 102.	College German II (4)
Ger 150.	Intermediate German (4)
Ger 212.	Composition (4)
Ger 214.	Conversation (4)

Ger 216.	Introduction to Literary Texts (4)
Ger 290.	German Literature in English (4)
Span 102.	College Spanish II (4)
Span 150.	Intermediate Spanish (4)
Span 155.	Intermediate Spanish for Spanish Speakers (4)
Span 212.	Composition (4)
Span 214.	Conversation (4)
Span 216.	Introduction to Literary Texts (4)
Span 290.	Spanish and Latin American Literature in English (4)

4. Philosophy:

Four units chosen from:

Phil 190.	Introduction to Philosophy (4)
Phil 250.	Values, Technology and Society (4)
Phil 270.	Introductory Philosophy of Religion (4)
Phil 275.	Eastern Views of Life (4)
Phil 280.	Knowledge and Reality (4)

5. Integrative Capstone in the Humanities:

Four units chosen from:

Hum 319.	Myth, Metaphor and Symbol (4)
Hum 325.	Perspectives on Gender (<i>also counts in category H1</i>) (4)
Hum 330.	Arts and Ideas (4)
Hum 335.	The Origin and Contemporary Role of Hispanic Culture (4) (<i>also counts in category H1.</i>)
Hum 340.	Interpretation and Values (4)
Hum 344.	Ideas in American Culture (4)
Hum 380.	Comparative Studies in the Arts and Literature of Western and Non-Western Cultures (4)
Hum 385.	A Cultural History of Fashion (4)
Hum 390.	Media America (<i>also counts in category H1</i>) (4)

Note: Students may receive credit for only one of the following courses:

Hum 325.	Perspectives on Gender
NSci 325.	Perspectives on Gender
SSci 325.	Perspectives on Gender

D. Social and Behavioral Sciences Breadth Area (20 units)

1. American History and Civilization:

Four units chosen from:

Hist 200.	United States History to 1877 (4)
Hist 201.	United States History 1877 to Present (4)
SSci 146.	American Civilization (4)

2. American Institutions:

PSci 203.	American Government (4)
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Note: The American history, constitution, state and local government requirement may be met by taking:

PSci 203.	American Government and one of the following:
Hist 200.	United States History to 1877

Hist 201. United States History 1877 to Present

SSci 146. American Civilization
If this requirement is met by examination, then students still must take 16 units of lower-division units in this breadth area.

3. *World Cultures:*

Four units chosen from:

- SSci 140. World Civilizations I, The Rise of Civilization (4)
SSci 142. World Civilizations II, The Civilizations of the East and West (4)
SSci 144. World Civilizations III, The Expansion of Europe (4)
SSci 165. Regions and Peoples of the World (4)

4. *Discipline Perspectives:*

Four units chosen from:

- Anth 100. Introduction to Anthropology: Human Evolution (4)
Anth 102. Introduction to Anthropology: Culture and Society (4)
Econ 104. Introduction to Economics (4)
Geog 100. Introduction to Human Geography (4)
PSci 100. Introduction to Political Science (4)
Psyc 100. Introduction to Psychology (4)
Soc 100. The Study of Society (4)

5. *Integrative Capstone in the Social and Behavioral Sciences:*

Four units chosen from:

- SSci 300. Nonwestern World (4)
SSci 304. Contemporary Latin America (4)
SSci 315. Cultural Adaptation: The Quest for Survival (4)
SSci 316. Race and Racism (*also counts in category H1*) (4)
SSci 321. Urbanization and the Urban Environment (4)
SSci 325. Perspectives on Gender (*also counts in category H1*) (4)
SSci 343. Understanding Socialism (4)
SSci 345. Religious Expression in America (4)
SSci 350. Roots of Modern Racism in America (*also counts in category H1*) (4)

Note: Students may receive credit for only one of the following courses:

- Hum 325. Perspectives on Gender
NSci 325. Perspectives on Gender
SSci 325. Perspectives on Gender

E. Lifelong Understanding Category (6 units)

1. *The Whole Person—Physical and Physiological Issues:*

Two units chosen from:

- NSci 110. Health and Self Care (2)

PE 205. Foundations for Lifetime Fitness (2)

2. *The Whole Person—Social and Psychological Issues:*

Two units chosen from:

- Psyc 115. Personal and Social Adjustment (2)
Soc 110. Choices in the Life Course (2)

3. *Physical Education:*

Two units chosen from:

- PE 101. Individual and Dual Activities (2)
PE 114. Physical Fitness and Conditioning Activities (2)
PE 117. Combative Activities (2)
PE 121. Team Activities (2)
PE 137. Aquatic Activities (2)
PE 141. Dance Activities (2)
PE 146. Outing Skills Activities (2)
PE 147. A Fitness Odyssey (2)
PE 148. Leisure Sports (2)
PE 149. Independent Activity Project (2)

Note: All students are required to complete two units of physical education in this category. Ten additional units of physical education activity courses (numbered 150 and below) for a total of 12 units maximum may be applied toward graduation.

F. Upper-division Writing Requirement (0–4 units)

This requirement can be met by completing one of the following two options:

1. *Successfully completing one of the following upper-division expository writing courses:*

- Educ 495. Expository Writing for Education (4)
Eng 495. Expository Writing (4)
Hum 495. Expository Writing for the Humanities (4)
Mgmt 495. Expository Writing for Administration (4)
NSci 495. Expository Writing for the Natural Sciences (4)
SSci 495. Expository Writing for the Social Sciences (4)

2. Passing a proficiency examination. Students passing the proficiency examination will still be required to take four units of upper-division general education course work from among those courses listed in the Elective Options Category H.

G. Multicultural/Gender Requirement Category

1. *All students must take one upper-division course designated as meeting this requirement.* A student may select either an appropriate integrative capstone course (thus meeting both the multicultural/gender requirement and an integrative capstone requirement in one breadth area) or an upper-division elective course in the Elective

Options Category H1 approved for this requirement.

H. Elective Options Category (4–8 units)

1. *A minimum of four elective units must be taken here from one of the two groups (a or b) below.* As noted in category F above, students passing the proficiency examination for the upper-division writing requirement must take four units of upper-division general education in this category in addition to the minimum four elective units. Thus, this category may be four or eight units for students, depending upon whether they take the proficiency examination.
 - a. *The multicultural/gender requirement can be met by completing one of the following two options:*
 1. Integrative capstone course in one of the three breadth areas (categories B5, C5 or D5) above marked as satisfying category H.1.
 2. One upper-division course from the following:

Anth 325.	Human Variation and the Concept of Race (4)
Anth 333.	Sex and Gender in Cross-Cultural Perspective (4)
Comm 304.	Intercultural Communication (4)
Econ 352.	The Economics of Poverty and Discrimination (4)
Eng 314.	American Indian Literature (4)
Hum 460.	Cultural Studies (4)
Phil 364.	Philosophy of Race and Gender (4)
TA 462.	Afro-American Theatre and Drama (4)
 - b. *Complete one of the following two options:*
 1. Four units of lower-division course work from the above breadth categories B, C or D (in excess of the units required for the breadth categories);
 2. Four units of lower-division courses from the following:

Art 210.	Western Art History (4)
Comm 202.	Mass Communication in America (4)
CSci 123.	Using Computer Software (2)
CSci 125.	Programming in BASIC (2)
CSci 127.	Introduction to Computer Technology for Educators (4)
Eng 140.	Major American Authors (4)
Mus 225.	Music in the Theatre (4)
Mus 235.	Popular Music Literature (4)
Psyc 201.	Developmental Psychology (4)
WStd 200.	Introduction to Women's Studies (4)

Graduation Requirement Check

Students must request a graduation requirement check at the Office of Admissions prior to completing their academic work at the University. Undergraduates should not request the check until they have accumulated 144 quarter units toward their degree, which may include work in progress. Students must pay for and file the graduation check by the deadlines established for each quarter and published in the academic calendar of the Bulletin and in the class schedule.

Students who do not complete the requirements in the terms for which the first graduation check was filed must refile and pay for a second graduation check indicating the quarter in which graduation is expected. CAR materials for terms subsequent to the stated graduation term will not be sent out unless a graduation check is refiled for a later term or by reapplying as a graduate/post baccalaureate student.

Systemwide Tests Required of Most New Students

The CSU requires new students to be tested in English and mathematics after they are admitted. These are not admission tests, but a way to determine if the students are prepared for college work and, if not, to counsel them on how to strengthen their preparation. Students might be exempted from one or both of the tests if they have scored well on other specified tests or completed appropriate courses.

English Placement Test (EPT)—The CSU English Placement Test must be completed by all new undergraduates with the exception of those who present proof of one of the following:

- a score of 3, 4, or 5 on either the language and composition or the composition and literature examination of the College Board Advanced Placement Program;
- a satisfactory score on the CSU English equivalency examination;
- a score of 470 or above on the verbal section of the College Board Scholastic Aptitude Test (SAT-Verbal);
- a score of 22 or above on the ACT English usage test;
- a score of 600 or above on the College Board Achievement Test in English composition with essay;
- completion of an acceptable college course in English composition of four quarter or three semester units with a grade of C or better.

The score obtained on the EPT will determine the appropriate level English composition course for each student. Prebaccalaureate course work may be required in preparation for the freshman composition course.

Note: Undergraduates who are admitted with 56 or more transferable semester units and are subject to a campus catalog or bulletin earlier than 1986–87 are not required to complete the EPT.

Entry Level Mathematics (ELM) Test—All new undergraduate students must take the test and pass it before enrolling in a course that satisfies the college-level mathematics requirement of the general education-breadth program. Exemptions from the test are given only to those students who can present proof of one of the following:

- a score of 3 or above on the College Board Advanced Placement mathematics examination (AB or BC);
- a score of 530 or above on the mathematics section of the Scholastic Aptitude Test (SAT-Math);
- a score of 23 or above on the ACT mathematics test;
- a score of 520 or above on the College Board math achievement test, Level 1;
- a score of 540 or above on the College Board math achievement test, Level 2;
- completion of a college course with a grade of C or better that satisfies the general education-breadth requirement in quantitative reasoning, provided it is at a level above that of intermediate algebra.

Note: Courses taken in terms prior to fall 1988 may be at the level of intermediate algebra or above.

Failure to take either of these tests, as required, within the first quarter of attendance may lead to administrative probation, which (according to Section 41300.1 of Title 5, California Code of Regulations, and CSU Executive Order 393) may lead to disqualification from future attendance.

Information bulletins and registration materials for the EPT will be mailed to all students subject to the requirements. The materials may also be obtained from the Office of Admissions and Records or the campus test office.

Assistance in understanding EPT and ELM test scores is available at the Advising Center (Pfau Library Building, Room 107, 880-5035). Students having difficulty passing the ELM will be advised to either take an appropriate prebaccalaureate mathematics course or to get tutorial assistance at the Learning Center depending on the ELM score obtained. All students must pass the ELM *before* enrolling in a general education mathematics course.

Upper-Division Writing Requirement

All students subject to degree requirements of the 1980–81 or subsequent Bulletins must com-

plete an upper-division writing competency requirement as a condition of graduation through either of two means:

1. Completion with a grade of C or better of one of the following courses: Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495 or Social Sciences 495. Prerequisites for 495 courses are: English 101 and a minimum of 90 quarter (60 semester) units of college credits.
- or
2. Satisfactory completion of a designated examination.

Students passing the proficiency examination will still be required to take four units of upper-division general education course work from among those courses listed in the electives options category.

Students normally shall complete the upper-division writing requirement by the end of the junior year.

Further information about the examination (for example, how much it costs, when it is offered, what it covers) is available from the Counseling and Testing Center, Physical Sciences Building, Room 227 (880-5040). Contact the Office of the Dean of Undergraduate Studies, Student Services Building, Room 158, (880-5032) for questions about the upper-division writing requirement itself.

History, Constitution, Government Requirement

Each student must demonstrate competence in understanding the Constitution of the United States; American history, institutions and ideals; and the principles of state and local government as established in California.

The requirement in the U.S. Constitution may be met by completing one of the following: Social Sciences 146, History 200 and 201, or 540, Political Science 203, 410 or 411.

The requirement in U.S. history may be met by completing one of the following: History 200, 201, 540, Political Science 314, Social Sciences 146.

The requirement in state and local government as established in California may be met by completing one of the following: History 370B or Political Science 203 or 330.

A student can meet the entire U.S. Constitution, U.S. history, and state and local government requirement, while fulfilling general education requirements, by taking Political Science 203, History 200 and 201 or 540 and Social Science 146. The opportunity to meet the requirements by passing an optional examination, which may be repeated once (not in the same quarter), is given to students. However, if this requirement is met by examination, students must still complete 16 lower-division units in the social and behavioral sciences breadth area. Information may be obtained from

either the Office of Admissions or the School of Social and Behavioral Sciences office. The examinations are administered through the Counseling and Testing Center.

Second Bachelor's Degree Requirements

A student who holds a bachelor's degree from California State University, San Bernardino or another accredited institution and who applies for a second degree must have satisfactorily completed each of the following in order to receive a second bachelor's degree:

1. General education requirements as stated in the appropriate catalog;
2. Upper-division writing requirement;
3. Requirements of the major involved;
4. In addition to whatever work was presented for the first bachelor's degree, a minimum of 45 quarter units of residence work of which
 - (a) 18 units must be in the second major,
 - (b) 12 units must be in general education,
 - (c) 36 units must be at the upper-division level;
5. Maintain a 2.5 GPA in all work attempted; and
6. Approval of the faculty of the University.

It is not necessary to complete a second bachelor's degree in order to graduate with a dual major; however, only a single diploma is issued in the case of a dual major. Contact the Office of Admissions.

University Residence Requirement for Graduation

A minimum of 45 quarter units must be completed at this University. At least 36 of these units must be upper-division, 18 in the major and 12 in general education.

Extension credit, credit by examination or credit by evaluation may not be used to fulfill the minimum residence requirement.

University Honors

University Honors at Commencement. To be considered for University Honors at commencement, a student must have completed a minimum of 45 units of work at California State University, San Bernardino in courses for which letter grades (A, B, C and D) were received.

Highest Honors: an overall undergraduate GPA of 3.9 or above and a GPA of 3.9 or above in all work attempted at this University.

High Honors: an overall undergraduate GPA of 3.75 or above and a GPA of 3.75 or above in all work attempted at this University.

Honors: an overall undergraduate GPA of 3.5 or above and a GPA of 3.5 or above in all work attempted at this University.

Dean's List. An undergraduate student completing 15 or more units for which letter grades (A, B, C and D) were received, and who earns a 3.5 or above in any regular academic term will be placed on a Dean's List.

1. Dean's Letter of Recognition. Any full-time undergraduate student, meeting the above requirements, who earns a 4.0 in any regular academic term will receive a letter of special recognition from the appropriate dean.
2. Presidential Letter of Recognition. Any full-time undergraduate student, meeting the above requirements, who earns a 4.0 in three consecutive regular academic terms will receive a letter of special recognition from the president of the University.

Departmental Honors. Individual departments may award departmental honors at graduation, recognizing distinguished students majoring in that field. The requirements to be met to earn honors are specified by the respective departments. Departmental honors are currently awarded in administration, anthropology, biology, chemistry, communication, computer science, criminal justice, economics, environmental studies, health science, history, human services, mathematics, music, nursing, philosophy, physical education, political science, psychology and sociology.

Preparation for Professional Schools

The plan of undergraduate study at the California State University, San Bernardino emphasizes a liberal education in preparing for professional or vocational specialization.

Some professions, such as law, stress that candidates for admission to professional schools can best prepare themselves during college by acquiring several fundamental skills. Others, for example, medicine and dentistry, emphasize certain subject matters. A student preparing for either kind of emphasis (skills or specific subjects) has opportunities to do so by selecting, in consultation with an appropriate preprofessional advisor, the kind of curriculum that most soundly meets the standards set by the profession he or she wishes to enter.

Preprofessional Programs: Medicine, Veterinary Medicine, Dentistry, Pharmacy

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

Any undergraduate major is appropriate for a pre-professional student as long as certain basic subject areas are included in the program. For specific re-

quirements of professional schools, the student is urged to consult special sources such as "Medical School Admission Requirements" (a publication of the Association of American Medical Colleges) or a preprofessional advisor in the School of Natural Sciences.

In general, medical and dental schools recommend that the undergraduate degree program include: one year of general chemistry, one year of organic chemistry, one year of general biology, with additional course work in developmental biology and/or comparative anatomy and genetics, and one year of physics. Other courses, e.g., mathematics through calculus and physical chemistry, are often recommended as well.

Since preprofessional programs in dentistry and medicine place heavy emphasis on biology and chemistry, these are the two majors most often elected by preprofessional students. A preprofessional student majoring in biology should complete the biology core program, supported by courses in chemistry and physics, and should elect Mathematics 211 and Biology 342. A preprofessional student majoring in chemistry should complete the chemistry core program, supported by courses in mathematics and physics, and should elect Biology 342 and 440.

The science and mathematics components of preprofessional programs in veterinary medicine are quite similar to those for medicine.

Admission to a school of pharmacy can also be gained after two years of undergraduate work. Although entrance requirements vary somewhat, they generally include full-year introductory courses in biology, chemistry, mathematics and physics. A course in organic chemistry is sometimes required as well.

Pre-engineering Program

Most students earn engineering degrees by attending a university with an accredited program in engineering. Although there are many different engineering disciplines, the first two years of course work is quite similar for most of these fields.

The pre-engineering courses offered allow the student to complete the first two years of courses generic to engineering. The student may then transfer to an accredited engineering program of their choice.

The advantages to students who enter the pre-engineering program are many. Most engineering schools are very competitive and not all qualified students can be accepted as freshmen. However, it is much easier for a student to qualify as a transfer student. Students with math deficiencies can enter the pre-engineering program and complete their course work at their own pace. Classes here have smaller enrollments than in large engineering schools and provide students with greater opportunities to interact with the faculty.

The physics faculty, working as pre-engineering advisors, help the student design a course of study specific to the engineering field of interest and to the program to which the student will transfer. For detailed course information, refer to the courses listed under the Department of Physics.

Preprofessional Program: Law

Applicants for admission to most law schools are expected to have a B.A. or B.S. degree and to have taken the Law School Admission Test. There is no single "prelaw" major required since the successful study of law is more often related to the ability to grasp and solve difficult intellectual problems and to employ disciplined work habits, than it is to any narrow, specialized field of study. However, students headed for law school are well advised to take a small number of selected liberal arts courses in subjects relevant to the law. Accordingly, the college offers a prelaw minor consisting of such courses. For further information concerning the prelaw minor, see Page 272.

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

For these reasons, every prelaw student should carefully choose, with the aid of appropriate advisors, courses which sharpen the skills and sensitivities previously listed. Since no one major is mandatory, the student should select one which emphasizes the areas mentioned above (administration, economics, English, history, philosophy, political science and sociology, to name a few). For additional information, the student should consult with the prelaw advisor and should be familiar with the Prewlaw Handbook.

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

Certificate Programs

The University offers a variety of programs leading to a certificate of competency in special areas.

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies, or (b) produce mastery of the content of a sub-field of an academic major (discipline), or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field.

Courses offered for the certificate may be the same ones used to satisfy major, minor, credential or general education requirements. In order to qualify for a certificate, undergraduate candidates must earn a grade-point average of 2.0 or better in applicable course work. Postbaccalaureate candidates must earn a grade-point average of 2.5. Standards for individual programs may exceed this minimum. Candidates must also receive two-thirds of their certificate-applicable credit from the University. The transferring of credit or the substitution of courses may occur only after application to the appropriate campus authority.

The certificate is awarded upon confirmation that the requirements for that program have been satisfied. The candidate is responsible for filing an application with the Office of Admissions for granting of the certificate, no later than the last term of certificate-applicable study, and for notifying the coordinator of the certificate program of completion of required course work. The awarding of a certificate will be noted on the student's transcript.

Further information regarding the certificates offered by the University can be found under the appropriate department.

Certificate Programs Offered

Accounting

Department of Accounting and Finance, Temporary Office Building, Room 76, 880-5704. Refer to Page 85.

Bilingual/Cross-cultural Studies: Spanish/English
Department of Foreign Languages, Pfau Library Building, Room 228, 880-5847. Refer to Page 296.

Business Skills for the Artist

Department of Art, Visual Arts Building, Room 123b, 880-5802. Refer to Page 105.

Children's Theatre

Department of Theatre Arts, Creative Arts Building, Room 175, 880-5876. Refer to Page 301.

Coaching

Department of Physical Education, Physical Education Building, Room 122, 880-5349. Refer to Page 261.

Communication Skills

Department of Communication, Pfau Library Building, Room 201, 880-5815. Refer to Page 123.

Community College Counseling

Department of Advanced Studies in Education, Faculty Office Building, Room 126, 880-5606. Refer to Page 356.

Community Mental Health

Department of Health Science and Human Ecology, Physical Sciences Building, Room 119, 880-5339. Refer to Page 186.

Computer Programming

Department of Computer Science, Pfau Library Building, Room 43, 880-5326. Refer to Page 128.

Criminal Justice

Department of Criminal Justice, Faculty Office Building, Room 144, 880-5506. Refer to Page 133.

Education of the Gifted and Talented

Department of Elementary and Bilingual Education, Pfau Library Building, Room 87, 880-5603. Refer to Page 356.

Educational Computing

Department of Advanced Studies in Education, Faculty Office Building, Room 126, 880-5606. Refer to Page 356.

Educational Technology

Department of Advanced Studies in Education, Faculty Office Building, Room 126, 880-5606. Refer to Page 356.

Environmental Education

Department of Advanced Studies in Education, Pfau Library Building, Room 549, 880-5640. Refer to Page 356.

Financial Management

Department of Accounting and Finance, Temporary Office Building, Room 76, 880-5704. Refer to Page 85.

Fitness Management

Department of Physical Education, Physical Education Building, Room 122, 880-5349. Refer to Page 262.

French/English and English/French Translators

Department of Foreign Languages, Pfau Library Building, Room 228, 880-5824. Refer to Page 173.

General Business

Department of Management, Administration Building, Room 153, 880-5731. Refer to Page 85.

German/English and English/German Translators

Department of Foreign Languages, Pfau Library Building, Room 228, 880-5847. Refer to Page 181.

Gerontology (Applied)

Department of Sociology, Faculty Office Building, Room 144, 880-5541. Refer to Page 291.

Health Services Administration and Planning

Department of Health Science and Human Ecology, Physical Sciences Building, Room 119, 880-5339. Refer to Page 186.

Human Resources Management

Department of Management, Administration Building, Room 153, 880-5731. Refer to Page 86.

Information Management

Department of Information and Decision Sciences, Administration Building, Room 198, 880-5723. Refer to Page 86.

International Relations

Department of Political Science, Faculty Office Building, Room 146, 880-5532. Refer to Page 273.

Latin American Studies

Department of Anthropology, Faculty Office Building, Room 249, 880-5502. Refer to Page 97.

Local Government Planning

Department of Public Administration, Administration Building, Room 138, 880-5758. Refer to Page 86.

Marketing Management

Department of Marketing, Administration Building, Room 135, 880-5749. Refer to Page 86.

Middle Grade Education

Department of Secondary and Vocational Education, Faculty Office Building, Room 139, 880-5650. Refer to page 357.

Military Science

Office of Military Science, Student Services Building, Room 124, 880-5533. Refer to Page 239.

Museum Studies

Department of Anthropology, Faculty Office Building, Room 249, 880-5502. Refer to Page 97.

Occupational Safety and Health

Department of Health Science and Human Ecology, Physical Sciences Building, Room 119, 880-5339. Refer to Page 186.

Paralegal Studies

Coordinator's Office, Faculty Office Building, Room 249, 880-5548. Refer to Page 253.

Reading for the Classroom Teacher

Department of Advanced Studies in Education,
Faculty Office Building, Room 126, 880-5606.
Refer to Page 357.

Recreation Leadership

Department of Physical Education, Physical Education Building, Room 122, 880-5349. Refer to Page 262.

Rehabilitation Counseling

Department of Advanced Studies in Education,
Faculty Office Building, Room 126, 880-5606.
Refer to Page 357.

Religious Studies

Department of Philosophy, Pfau Library Building, Room 242, 880-5869. Refer to Page 256.

Remedial Education in the Elementary School

Department of Elementary and Bilingual Education, Faculty Office Building, Room 125, 880-5603. Refer to Page 357.

Resource Specialist in Special Education

Department of Advanced Studies in Education,
Faculty Office Building, Room 126, 880-5606.
Refer to Page 358.

School Business Management

Department of Advanced Studies in Education,
Faculty Office Building, Room 126, 880-5606.
Refer to Page 358.

Small Business Management

Department of Management, Administration Building, Room 153, 880-5731. Refer to Page 86.

Social Work

Department of Sociology, Temporary Office Building, Room 143, 880-5541. Refer to Page 291.

Spanish for Public Services

Department of Foreign Languages, Pfau Library Building, Room 228, 880-5847. Refer to Page 296.

Study Strategy Instruction for the Secondary School

Department of Secondary and Vocational Education, Faculty Office Building, Room 139, 880-5650. Refer to Page 358.

Teaching Basic Mathematics

Department of Mathematics, Biology Building, Room 111, 880-5361. Refer to Page 233.

Urban Planning

Department of Geography, Faculty Office Building, Room 249, 880-5519. Refer to Page 176.

Women's Studies

Department of Anthropology, Faculty Office Building, Room 253, 880-5503. Refer to Page 310.

Writing: Creative Writing

Department of English, Pfau Library Building, Room 236B, 880-5824. Refer to Page 159.

Writing: Professional Writing

Department of English, Pfau Library Building, Room 236B, 880-5824. Refer to Page 160.



Extended Education

Extended Education at California State University, San Bernardino is an avenue for the residents of the Inland Empire to enhance their education. The Office of Extended Education offers a variety of programs and services to extend the resources of the University to the community. These resources include faculty and staff, degree applicable credit, noncredit offerings and facilities.

The California State University regards its extended education credit-bearing programs as integral parts of the institution. These programs are viewed as extensions of the University's educational services and are in concert with its overall mission and purpose. The programs and courses in extended education are expected to meet the standards of quality which the institution sets for its other programs and courses, in terms of resources, faculty, level of instruction, evaluation and support services.

Extension

A variety of credit and noncredit extension courses are offered to meet the lifelong educational needs of residents in the Inland Empire. Taught by University faculty and academically qualified practitioners, many of these courses provide professional development in business, management, education, health care and other fields, with the aim of improving one's effectiveness on the job or opening doors to new careers.

The 800- and 900-level education courses offered through Extended Education are designed with professional growth in mind and, in most cases, apply toward the requirements of SB813 and salary advancement.

The Office of Extended Education is approved by the California Board of Registered Nursing to provide continuing education contact hours and has entered into an agreement with the State Board of Accountancy to meet continuing education requirements.

Many extension courses are offered off campus including special natural science courses at the Desert Studies Center near Baker, California. In outdoor classrooms, students can explore the lifestyles of early man, archaeology, geology, flora and fauna and much more.

Extended Education also offers a variety of personal enrichment courses, including writing, recreation, photography and wine tasting. For more information, call 880-5975.

Conferences

The Office of Extended Education is adept at providing conference support for educational institutions, professional organizations, business and industry.

Depending upon the scope and content of the particular conference, the Office of Extended Education may be able to provide co-sponsorship, ar-

range for meeting and meal facilities, locate keynote speakers and other program presenters, provide registration support, certificates of completion and, in many cases, professional advancement extended education credit.

The campus is conducive to supporting groups up to 400, providing ample meeting space and a picturesque setting in the foothills of the San Bernardino mountains. The Office of Extended Education also can make conference arrangements off campus, including Palm Springs. For more information, call 880-5977.

Professional Development Contract Programs

Utilizing the up-to-date resources of California State University, San Bernardino, the Office of Extended Education provides consulting services, training development programs, certificate programs, conferences, educational components for grants, and needs assessment for business (large and small), industry, hospital and health care organizations, and government agencies.

In direct consultation with the participating organization, the Office of Extended Education will develop custom-designed professional development seminars or programs to accelerate the professional effectiveness, productivity and problem-solving skills of the organization's staff. For more information, call 880-5977.

Teacher Inservice Programs

Schools or districts interested in planning a special course or program may contact the Office of Extended Education for assistance. The Office is prepared to aid in the professional development and personal growth of school staff by providing professional advancement credit (assuming the inservice program meets the academic criteria set forth by CSUSB, participants may earn professional advancement, non-degree applicable credit toward salary increases); and university resources, including CSUSB faculty and facilities. For more information, call 880-5977.

Summer Session

Summer Session affords both regular and nonmatriculated students the opportunity to pursue undergraduate or graduate study in virtually all of the University's academic majors and in professional programs.

There is no prior application required nor are there formal procedures for admission to Summer Session. Course credits earned in the summer denote residence credit and are accepted toward degree programs on campus when students matriculate to the University. For more information, call 880-5975.

Open University

Most courses listed in the University Bulletin are open to nonmatriculated students through Extended Education under a program called Open University. Members of the community who meet the prerequisites may enroll in regular campus courses on a space-available basis. Students can apply up to a maximum of 36 units through Open University toward a bachelor's degree and 13 units toward a master's degree (subject to approval by department concerned).

Open University is designed for those who:

- missed the deadline for admission to the regular resident program;
- want to examine a particular field before actually enrolling in a degree program;
- want to update professional training;
- are considering reentering an academic program; or
- want to take courses not offered through the extended education program.

Students who desire to enroll in Open University classes are required to secure a permit from the Office of Extended Education and obtain approval of the instructor. Open University deadlines are posted quarterly in the Extended Education *Bulletin*. For more information, call 880-5975.

Off-Campus Programs

As part of its commitment to the University's goal of regional service, the Office of Extended Education administers state supported Off-Campus Programs at a variety of off-campus locations. Courses leading to bachelor's as well as master's degrees are offered in the High Desert, Hemet/San Jacinto Valley, Murrieta, March Air Force Base and other sites. Students in these locations can take most, if not all, courses leading to specific degrees. For more information, call 880-5976.

To assist students in the High Desert, the Office of Extended Education maintains a part-time office at Victor Valley College. This office can provide information about admission, registration, course location, financial aid as well as answer many other questions. The High Desert Office telephone number is (619) 245-0229.

Instructional Television Fixed Service

The Instructional Television Fixed Service (ITFS), administered through the Office of Extended Education, provides the technology for distance learning at CSUSB's Coachella Valley Center and several other "downlink" sites. A microwave signal and open telephone hook-up allows groups of students at various locations to see, hear and participate interactively in selected live campus-based classes. One of the many advantages of the ITFS system is its flexibility: conferencing, student

advising and extension offerings are all made possible by the technology. Moreover, through ITFS, distance learners can participate in quality educational experiences that, because of geographic separation, might not be offered to them otherwise. For more information, call 880-5979.

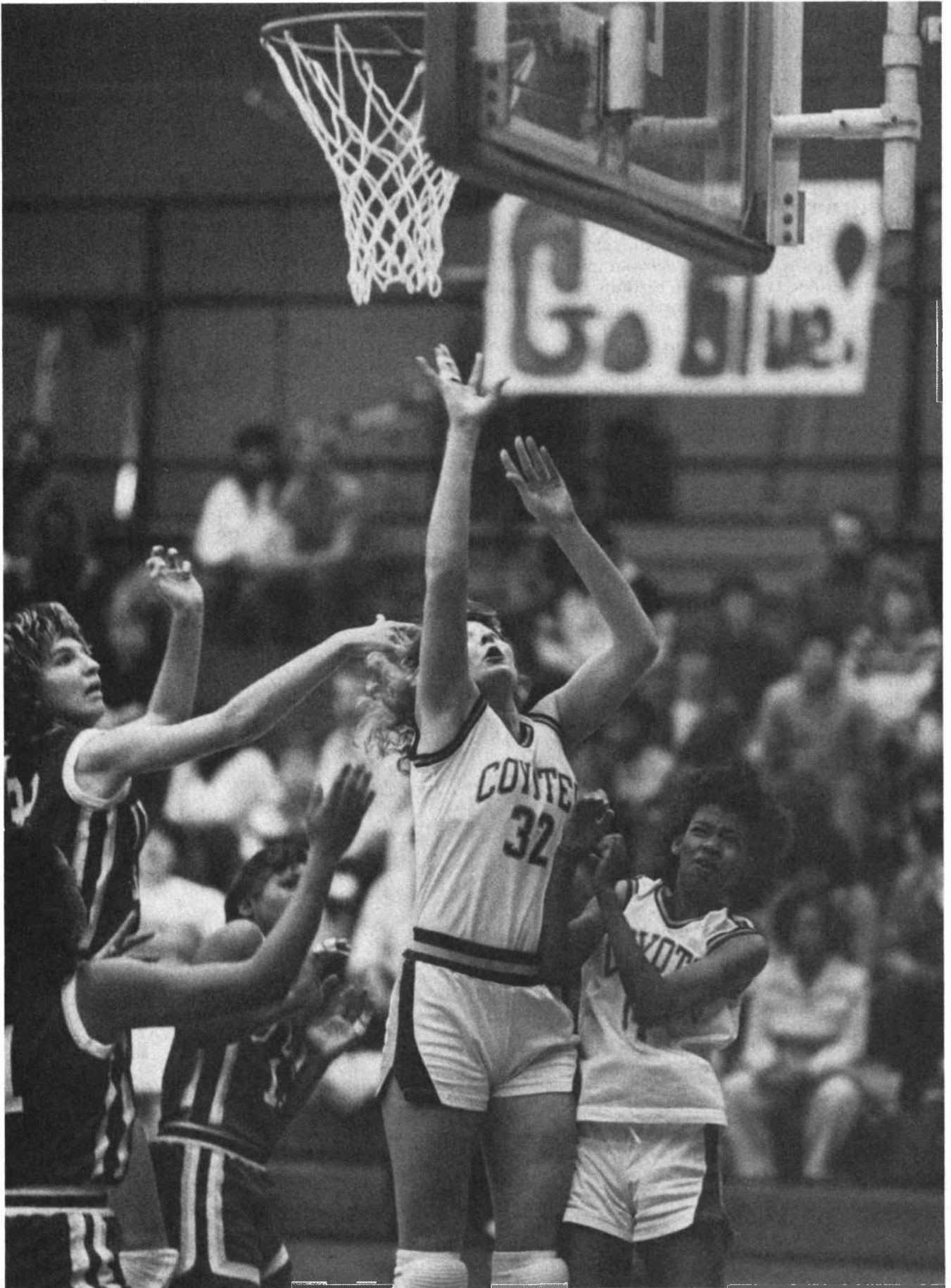
American Culture and Language Program

ACLP is designed for international students, visitors and professionals who seek an intensive English experience focusing on reading, writing and speaking English, and an introduction to American culture.

The American Culture and Language Program provides students with:

1. intensive study of the English language at beginning, intermediate and advanced levels;
2. an introduction to American culture and lifestyles through a variety of educational and fun field trips;
3. lodging at either CSUSB residence halls or with homestay families;
4. necessary preparation for university-level course work;
5. T.O.E.F.L. preparation;
6. academic counseling;
7. I-20 form for student visas.

The American Culture and Language Program offers a ten week program each quarter, and specially designed intensive five week programs for smaller groups. Many ACLP students eventually matriculate to California State University, San Bernardino. For more information, call 880-5978.



The Curriculum

Schools of the University

The academic program of the University is offered through five schools—Business and Public Administration, Education, Humanities, Natural Sciences and Social and Behavioral Sciences—organized into departments.

Degree programs are offered by departments, schools and interdisciplinary committees. A complete listing of the degrees available at the University may be found on Page 18.

Course Numbering System

1-99	<i>Nondegree-applicable credit.</i>
100-299	Lower-division courses designed primarily for freshmen and sophomores. <i>Graduate credit is not allowed.</i>
300-599	Upper-division courses of junior and senior level; graduate credit may be awarded if course is accepted in a specific graduate program.
600-699	Courses for postbaccalaureate and graduate students only. <i>May not be taken by undergraduates.</i>
X800-X899	Courses offered through extension only. <i>Credit not degree applicable.</i>
IP100-IP699	Courses taken by students in the International Programs.
e300-e699	Credit earned in a continuing education program for residence credit pursuant to an external degree program.

Full-Term Course Credits

Most courses at California State University, San Bernardino carry four quarter units of credit; some carry six units; some two units; and a few variable credit. Course credits are indicated in the course descriptions in this Bulletin. Since each unit of credit presumes one hour of class time and two hours of preparation, a typical four-unit course would require a minimum of 12 hours per week of the student's time. For purposes of comparison with other colleges, a four quarter-hour course is equivalent to a 2% semester-hour course.

In the fall term of 1989 the campus made a major change in its curriculum with a shift from five units to four units as the typical course credit value. The number of hours of study and preparation expected per unit remained constant as did the number of class hours per week, only the fifth unit of credit, which had traditionally been earned through out-of-class-independent study, was dropped. The total number of units required for graduation remained the same, but departments have adapted the content and size of majors and general education to

reflect this basic change in practice. Transfer students (who have maintained continuous enrollment) and returning Cal State, San Bernardino students (who had leaves of absence) may be eligible to use requirements of a previous Bulletin. Students should contact the Advising Center with questions regarding general education equivalency and the chair of their major department for information on how previous five-unit requirements are met by new four-unit equivalents. Conversion documents comparing the former and the new programs are available in those offices.

Every effort has been made to assure the accuracy of the information in this catalog. Students are advised, however, that such information is subject to change without notice. Therefore, they should consult the appropriate instructional departments, schools, or administrative offices for current information. (Also see Changes in Rules and Policies statement on Page 430.)

The class schedule, issued prior to each quarter, lists courses to be offered during that term.

The Schools and Departments of the University

School of Business and Public Administration

Dean.....	David O. Porter
Associate Dean.....	Jack McDonnell (Acting)
Accounting and Finance.....	Eldon Lewis
Information and Decision Sciences.....	C.E. Tapie Rohm
Management.....	John Chaney
Marketing.....	Lynn Judd
Public Administration.....	Naomi Caiden

School of Education

Dean.....	Margaret Atwell (Acting)
Associate Dean.....	Margaret Atwell
Advanced Studies in Education.....	Stanley Swartz
Elementary and Bilingual Education.....	Adria Klein
Secondary and Vocational Education.....	Francisco Hidalgo

School of Humanities

Dean.....	Beverly L. Hendricks
Associate Dean.....	Richard Barnet
Art.....	Richard Johnston
Communication Studies.....	Michael Kelly (Acting)
English.....	Harold Hellenbrand
Foreign Languages.....	Jacques Benzakein
Music.....	Edward Bostley
Philosophy.....	Jeffrey King
Theatre Arts.....	Robert Yowell

School of Natural Sciences

Dean.....	James Crum
Associate Dean.....	Joan T. Hallett
Biology.....	Klaus Brasch
Chemistry.....	Dennis Pederson
Computer Science.....	Peter Wetterlind
Health Science.....	Cynthia Paxton (Acting)
Mathematics.....	John Sarli
Nursing.....	Janice Layton
Physical Education.....	Chris Grenfell (Acting)
Physics.....	Leo Connolly

School of Social and Behavioral Sciences

Dean.....	Aubrey W. Bonnett
Associate Dean.....	Russell Barber (Interim)
Anthropology.....	Frances Berdan
Criminal Justice.....	Frank Williams, III
Economics.....	Mayo Toruno (Acting)
Geography.....	Richard Rowland
History.....	Robert Blackey
Political Science.....	Edward Erler
Psychology.....	Charles Hoffman
Social Work.....	Melvin Hawkins (Acting)
Sociology.....	David Decker

ACCOUNTING

Department of Accounting and Finance

Temporary Office Building, Room 76
880-5704

The University offers concentrations in accounting within the Bachelor of Science in Administration and the Master of Business Administration. A Certificate in Accounting is also available. The details of these programs are listed under Administration (Page 79). The Master of Business Administration can be found on Page 325. The courses listed below are offered in support of these programs. Further information is available from the Department of Accounting and Finance.

COURSE OFFERINGS IN ACCOUNTING (Acct)

Lower Division

211. Principles of Accounting I

Development and use of basic accounting information for management analysis, decision-making, planning and control relating to operations. A self-paced version of this course (Accounting 211A) is also available. (Students may not receive credit for more than one of the following courses: Accounting 211, 211A, 311 or 311A.) (4 units)

212. Principles of Accounting II

Continuation of accounting topics as begun in Accounting 211, with emphasis on managerial and financial accounting applications, and decision-making. (May not be taken for credit by students who have taken Accounting 312 or Administration 306.) A self-paced version of this course (Accounting 212A) is also available. (Students may not receive credit for more than one of the following courses: Accounting 212, 212A, 312, or 312A.)
Prerequisite: Accounting 211 or 311. (4 units)

Upper Division

Enrollment in upper division courses restricted to students who have met all prerequisites and have completed at least 89.9 quarter units (junior class level). Students who do not meet these requirements will be disenrolled.

315. Accounting Information Systems

Hardware and software for use in computer-based accounting information systems. The development and design of systems is introduced. A brief introduction to internal control and audit of computer systems and basic operating controls complete the course. May not be taken for credit by students who have received credit for Accounting 446. *Prerequisites: Information Management 220 and 309 and Accounting 212.* (4 units)

340. Managerial Accounting

Accounting information systems used by management. May not be counted toward fulfilling requirements of the accounting concentrations. *Prerequisite: Accounting 212 or 312.* (4 units)

344. Cost Accounting

Cost accounting concepts, objectives, and systems. *Prerequisite: Accounting 211 or 311.* (4 units)

372. Intermediate Accounting

In-depth study of the fundamentals of accounting and their applications to the short-term segments of the statement of financial position. Includes study of pronouncements of professional accounting organizations and the Securities and Exchange Commission.

Prerequisites: Accounting 211 or 311; Accounting 212 or 312; Economics 200 and 202; English 101; Information Management 220; Management Science 210; and Mathematics 110 with a grade of "C" or better in each course. Students must provide evidence of compliance with these prerequisites to the course instructor. (4 units)

373. Problem Areas in Intermediate Accounting

Continuation of Accounting 372 with applications to the long-term segments of the statement of financial position. *Prerequisite: Accounting 372 with a grade of "C" or better.* (4 units)

374. Reporting Issues in Intermediate Accounting

Continuation of Accounting 372 and 373 with applications to financial reporting issues. *Prerequisite: Accounting 373.* (4 units)

426. Introduction to Taxation I

Introduction to the basic concepts of federal income taxation. Includes history and objectives of the tax, along with the treatment of various types of entities, types of income, types of deductions and types of credits. Emphasis is on the individual as a taxpayer. *Prerequisites: Accounting 211 or 311 and junior standing.* (4 units)

438. Auditing

Function of the auditor, viewed from the perspective of professional ethics. SEC standards of reporting, auditor's legal liabilities. Techniques include internal control, sampling, standards of statement presentation, use of the computer as an auditing tool. Case studies emphasize design of audit programs, working papers and audit reports. *Prerequisite: Accounting 373.* (4 units)

439. Advanced Accounting

Advanced topics in accounting including business combinations, multinational operations and foreign currency transactions, liquidations, and reorganizations. It includes partnership formation, income distribution and liquidation. *Prerequisite: Accounting 373.* (4 units)

444. Professional Accounting Law

Advanced topics in contracts, commercial paper, property, legal aspects of organizations, administrative law, trusts and insurance. Emphasis is on legal problems encountered in public accounting. *Prerequisite: Management 330.* (4 units)

503. Financial and Managerial Accounting

Intensive introduction to applied topics and techniques in financial and managerial accounting. Development and use of accounting information for external reporting purposes and management analysis, decision-making, planning and control. No credit will be awarded to

students who have had Accounting 211 and 212; 306; or 311 and 312. May not be counted toward fulfilling requirements for any degree program offered by the School of Business and Public Administration. (4 units)

527. Introduction to Taxation II

The basic concepts of the federal income taxation of corporations, partnerships, estates and trusts and the federal estate and gift tax. Emphasis is on the income taxation of corporations. The course also includes an introduction to tax research. May not be taken for credit by students who have received credit for Accounting 427. *Prerequisite: Accounting 426.* (4 units)

545. Cost Determination and Analysis

An advanced study of cost accounting with managerial applications. Coverage will include advanced topics in process and standard costing, mix and yield variances, and other topics relating to the planning and control functions. May not be taken for credit by students who have received credit for Accounting 345. *Prerequisite: Accounting 344.* (4 units)

568. Accounting for Government and Not-for-Profit Organizations

Covers principles and practices of government fund accounting. Topics include governmental accounting concepts, types and structure of funds and accounts, application of generally accepted accounting principles to government and not-for-profit entities, presentation and uses of financial statements. *Prerequisite: Accounting 211 or 311.* (Also offered as Public Administration 568. Students may not receive credit for both.) (4 units)

575. Internship in Accounting

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

590. Seminar in Accounting

An intensive study of some phase of accounting to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of project instructor and approval by the department of a written proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units.)

ADMINISTRATION

School of Business and Public Administration

Administration Building, Room 140
880-5700

Bachelor of Arts

Administration

with concentrations in:

- Business Economics
- Finance
- Information Management
- Management Science
- Marketing
- Production/Operations Management
- Public Administration
- Small Business Management

Bachelor of Science

Administration

with concentrations in:

- Accounting
- Finance
- Information Management
- International Business
- Management Science
- Marketing

Minor

- Business Administration
- Public Administration

Master of Business Administration

(Degree requirements can be found on Page 325.)

Master of Public Administration

(Degree requirements can be found on Page 392.)

Certificate Programs

- Accounting
- Financial Management
- General Business
- Human Resources Management
- Information Management
- Local Government Planning
- Marketing Management
- Small Business Management

The School of Business and Public Administration offers a major in administration designed to prepare students for careers in business, government service, institutions and related fields.

The administration curriculum reflects the view that the concepts, philosophies and methodologies of modern administrative science, though traditionally studied in the context of business enterprise, have applicability to large-scale organizations gen-

erally. This curriculum, with its core requirements and areas of specialization, provides the student with a broad-based behavioral and quantitative understanding of the concepts of management. The managerial function and decision-making processes are studied with coverage in methods of analysis of quantitative information; judgment and appraisal of social, economic and human relations issues; and effective communication.

Areas of commonality among various public and private systems of institutional management constitute the core material of the administration major, while variations which distinguish management practices in different functional areas are subjects for optional specialization.

Students are encouraged to check that they have met the prerequisite requirements for each course in the School of Business and Public Administration in which they are planning to enroll. Prerequisite requirements listed for each course are strictly enforced.

Enrollment in 300, 400 and 500 level courses in the School of Business and Public Administration is restricted to students who have completed at least 89.9 quarter units (i.e., at least junior class level). Course prerequisites are strictly enforced.

Students who do not meet the stated requirements may be disenrolled from the course(s).

B.A. IN ADMINISTRATION

Requirements (88 units)

Requirements for the B.A. in Administration:

Lower-division requirements (28 units)

1. Acct 211. Principles of Accounting I (4)
2. Acct 212. Principles of Accounting II (4)
3. Econ 200. Principles of Microeconomics (4)
4. Econ 202. Principles of Macroeconomics (4)
5. Info 220. Fundamentals of Business Data Processing (4)
6. Mgmt 230. Business Law (4)
7. MSci 210. Applied Business Statistics (4)

Upper-division requirements (36 units)

1. Fin 313. Business Finance (4)
2. Fin 314. Corporate Financial Management (4)
3. Info 309. Information Management (4)
4. Mgmt 302. Management and Organizational Behavior (4)
- or
- Psyc 302. Management and Organizational Behavior (4)
5. Mgmt 330. Legal Environment of Business (4)
6. Mgmt 490. Administrative Strategy and Policy (4)
7. Mktg 305. Marketing Principles (4)

8. MSci 304. Principles of Production and Operations Management (4)
 9. PA 315. Government-Business Relations (4)

Note: Students choosing the public administration concentration, should substitute Economics 475 for Finance 313; Public Administration 472 for Finance 314; Public Administration 307 for Marketing 305 and Political Science 428 for Management 490.

Concentration (24 units)

Choose one concentration from the following:

Note: The concentration electives should be chosen from the electives listed for each concentration or, with the prior approval of the department chair, the student may substitute other courses for these electives. With prior approval, up to two of the concentration electives may be chosen from other academic disciplines. In planning their career goals, students should review course offerings of other departments to determine if specific courses fit their career plans.

Business Economics Concentration

1. Econ 322. Managerial Economics (4)
2. Econ 335. Economic Analysis with Microcomputers (4)
3. Econ 372. Business Cycles (4)
4. *Twelve units of electives chosen from:*
 Econ 333. Women in the Economy (4)
 Econ 340. Advanced Economic Analysis with Microcomputers (4)
 Econ 360. Economics of the Environment (4)
 Econ 410. Money and Banking (4)
 Econ 430. International Economics (4)
 Econ 475. Public Finance (4)
 Econ 490. Introduction to Econometrics (4)
 Econ 575. Internship in Economics (4)
 MSci 400. Quantitative Decision Methods (4)
 MSci 466. Production Planning and Operations Research (4)

Finance Concentration

1. Fin 430. Financial Theory and Practice (4)
2. Fin 432. Financial Institutions and Capital Formation (4)
3. Fin 433. International Business Finance (4)
4. Fin 435. Investment Analysis (4)
5. Fin 445. Financial Analysis and Decision-Making (4)
6. *Four units of electives chosen from:*
 Acct 340. Managerial Accounting (4)
 Acct 372. Intermediate Accounting (4)
 Acct 373. Problem Areas in Intermediate Accounting (4)

- Acct 426. Introduction to Taxation I (4)
 Acct 527. Introduction to Taxation II (4)
 Econ 410. Money and Banking (4)
 Econ 475. Public Finance (4)
 Fin 360. Risk Management and Insurance (4)
 Fin 434. Export-Import Financing (4)
 Fin 575. Internship in Finance (4)
 Fin 580. Principles of Real Estate (4)
 Mgmt 442. Small Business Management (4)

Information Management Concentration

1. Info 472. Information Technology (4)
2. Info 473. Information Forecasting (4)
3. Info 474. Data Base Management (4)
4. Info 475. Information Networking (4)
5. Info 490. Information Policies and Strategies (4)
6. *Four units of electives chosen from:*
 Info 282. Business Systems I (4)
 Info 283. Business Systems II (4)
 Info 471. Information Systems Planning (4)
 Info 476. Systems Analysis and Design (4)
 Info 477. Decision Support Systems (4)
 Info 478. Information Problem Solving (4)
 Info 479. Studies in Information Management (4)
 Info 481. Information Processing (4)
 Info 484. Expert Systems (4)
 Info 575. Internship in Information Management (4)
 MSci 360. Statistical Analysis for Management (4)
 MSci 400. Quantitative Decision Methods (4)
 MSci 466. Production Planning and Operations Research (4)
 MSci 470. Inventory Control (4)

Management Concentration

1. *Sixteen units of electives chosen from:*
 Mgmt 335. Business and Society (4)
 Mgmt 350. Administrative Communications (4)
 Mgmt 451. Organization and Management Theory (4)
 Mgmt 455. Human Resources Management (4)
 Mgmt 515. Small Business Consulting (4)
2. *Eight units chosen from one of the speciality areas listed below:*
 Management Speciality Area
 Mgmt 355. Management of Administrative Conflict (4)
 Mgmt 402. Studies in Organizational Behavior (4)

- Mgmt 403. Interpersonal Relations (4)
or
Comm 403. Interpersonal Relations (4)
Mgmt 405. Management of International Operations (4)
Mgmt 432. Factors in System Development (4)
Mgmt 459. Work Group Management (4)
Mgmt 575. Internship in Management (4)
- Human Resources Speciality Area
Mgmt 456. Psychology of Human Resources (4)
Mgmt 457. Industrial and Labor Relations (4)
Mgmt 458. Fair Employment Practices (4)
Mgmt 575. Internship in Management (4)
- Management Science Concentration
1. MSci 355. Statistical Software (2)
2. MSci 360. Statistical Analysis for Management (4)
3. MSci 400. Quantitative Decision Methods (4)
4. MSci 466. Production Planning and Operations Research (4)
5. MSci 467. Research Methods (4)
6. MSci 499. Practicum in Management Science (2)
7. *Four units of electives chosen from:*
Econ 490. Introduction to Econometrics (4)
Info 282. Business Systems I (4)
Info 283. Business Systems II (4)
Info 473. Information Forecasting (4)
MSci 470. Inventory Control (4)
MSci 575. Internship in Management Science (4)
- Marketing Concentration
1. Mktg 496. Marketing Planning and Strategy (4)
2. *Sixteen units of electives chosen from:*
Mktg 410. Consumer Behavior (4)
Mktg 420. Advertising (4)
Mktg 430. Sales Techniques (4)
Mktg 440. Marketing Research (4)
Mktg 450. Distribution (4)
Mktg 460. Retailing (4)
Mktg 470. International Marketing Management (4)
Mktg 575. Internship in Marketing (4)
3. Four units of 400- or 500-level marketing courses not previously taken.
- Production/Operations Management Concentration
1. Mgmt 432. Human Factors in System Development (4)
2. MSci 360. Statistical Analysis for Management (4)
3. MSci 400. Quantitative Decision Methods (4)
4. MSci 466. Production Planning and Operations Research (4)
5. MSci 468. Advanced Production Management (4)
6. *Four units of electives chosen from:*
Acct 344. Cost Accounting (4)
Acct 345. Cost Accounting and Control (4)
Info 471. Information Systems Planning (4)
Mgmt 455. Human Resources Management (4)
Mgmt 457. Industrial and Labor Relations (4)
MSci 470. Inventory Control (4)
MSci 575. Internship in Management Science (4)
- Public Administration Concentration
1. PA 380. Introduction to Public Administration (4)
2. PA 462. Public Personnel Administration (4)
3. PA 463. Governmental Budgeting (4)
4. PA 480. Organizational Problems in Public Administration (4)
5. *Eight units of electives chosen from:*
PA 472. Administrative Law (4)
PA 514. Management of Private Nonprofit Organizations (4)
PA 516. Public and Non-Profit Project Management (4)
PA 521. Principles of Planning (4)
PA 557. Public Sector Labor Relations (4)
PA 564. Local Public Administration (4)
PA 568. Accounting for Government and Not-for-Profit Organizations (4)
PA 575. Internship in Public Administration (4)
PA 590. Seminar in Public Administration (4)
- Small Business Management Concentration
1. Fin 445. Financial Analysis and Decision-Making (4)
2. Mgmt 442. Small Business Management (4)
3. Mgmt 455. Human Resources Management (4)
4. Mgmt 515. Small Business Consulting (4)
5. Mktg 460. Retailing (4)
or
one of the following:
Mktg 420. Advertising (4)
Mktg 430. Sales Techniques (4)
Mktg 431. Sales Management (4)
6. *Four units of electives chosen from:*
Acct 426. Introduction to Taxation I (4)
Acct 527. Introduction to Taxation II (4)

- Mgmt 457. Industrial and Labor Relations (4)
 Mgmt 458. Fair Employment Practices (4)
 Mktg 420. Advertising (if not taken as a required course) (4)
 Mktg 430. Sales Techniques (if not taken as a required course) (4)
 Mktg 431. Sales Management (if not taken as a required course) (4)
 Mktg 460. Retailing (if not taken as a required course) (4)
 Mktg 575. Internship in Marketing (4)

B.S. IN ADMINISTRATION

Requirements (108 units)

Note: The B.S. degree in Administration requirements total 198 units: 108 units in the major, 86 units in General Education and 4 units of general electives.

Requirements for the B.S. in Administration:

Lower-division requirements (28 units)

1. Acct 211. Principles of Accounting I (4)
2. Acct 212. Principles of Accounting II (4)
3. Econ 200. Principles of Microeconomics (4)
4. Econ 202. Principles of Macroeconomics (4)
5. Info 220. Fundamentals of Business Data Processing (4)
6. Mgmt 230. Business Law (4)
7. MSci 210. Applied Business Statistics (4)

Upper-division requirements (36 units)

1. Fin 313. Business Finance (4)
 2. Fin 314. Corporate Financial Management (4)
 3. Info 309. Information Management (4)
 4. Mgmt 302. Management and Organizational Behavior (4)
- or
- Psyc 302. Management and Organizational Behavior (4)
 5. Mgmt 330. Legal Environment of Business (4)
 6. Mgmt 490. Administrative Strategy and Policy (4)
 7. Mktg 305. Marketing Principles (4)
 8. MSci 304. Principles of Production and Operations Management (4)
 9. PA 315. Government-Business Relations (4)

Concentration (44 units)

Choose one concentration from the following:

Note: The concentration electives should be chosen from the electives listed for each concentration or, with the prior approval of the department chair, the student may substitute other courses for these electives. With prior approval, up to two of

the concentration electives may be chosen from other academic disciplines. In planning their career goals, students should review course offerings of other departments to determine if specific courses fit their career plans.

Accounting Concentration

1. Acct 315. Accounting Information Systems (4)
2. Acct 344. Cost Accounting (4)
3. Acct 372. Intermediate Accounting (4)
4. Acct 373. Problem Areas in Intermediate Accounting (4)
5. Acct 374. Reporting Issues in Intermediate Accounting (4)
6. Acct 426. Introduction to Taxation I (4)
7. Acct 438. Auditing (4)
8. *Sixteen units to be chosen from the following (in consultation with advisor):*
 Acct 439. Advanced Accounting (4)
 Acct 444. Professional Accounting Law (4)
 Acct 527. Introduction to Taxation II (4)
 Acct 545. Cost Determination and Analysis (4)
 Acct 568. Accounting for Government and Not-for-Profit Organizations (4)
 or
 PA 568. Accounting for Government and Not-for-Profit Organizations (4)
 Acct 575. Internship in Accounting (4)
 Acct 590. Seminar in Accounting (4)

Finance Concentration

1. Fin 360. Risk Management and Insurance (4)
 or
 Fin 580. Principles of Real Estate (4)
2. Fin 430. Financial Theory and Practice (4)
3. Fin 432. Financial Institutions and Capital Formation (4)
4. Fin 433. International Business Finance (4)
5. Fin 435. Investment Analysis (4)
6. Fin 445. Financial Analysis and Decision-Making (4)
7. *Twenty units of electives chosen from:*
 Acct 340. Managerial Accounting
 or
 Acct 344. Cost Accounting (4)
 Acct 372. Intermediate Accounting (4)
 Acct 373. Problem Areas in Intermediate Accounting (4)
 Acct 426. Introduction to Taxation I (4)
 Acct 527. Introduction to Taxation II (4)
 Econ 410. Money and Banking (4)
 Econ 475. Public Finance (4)
 Fin 434. Export-Import Financing (4)
 Fin. 360. Risk Management and Insurance (if not taken previously) (4)

- Fin 580. Principles of Real Estate (if not taken previously) (4)
 Fin 575. Internship in Finance (4)
 Mgmt 442. Small Business Management (4)

Information Management Concentration

1. Info 472. Information Technology (4)
2. Info 474. Data Base Management (4)
3. Info 475. Information Networking (4)
4. Info 478. Information Problem Solving (4)
5. Info 490. Information Policies and Strategies (4)
6. *Twenty-four units chosen from one of the speciality areas listed below:*

Computer Information Systems Speciality Area

- A. Info 282. Business Systems I (4)
- B. Info 283. Business Systems II (4)
- C. Info 476. Systems Analysis and Design (4)
- D. Info 477. Decision Support Systems (4)
- E. *Eight units chosen from:*
 - CSci 201. Computer Science I (4)
 - CSci 202. Computer Science II (4)
 - CSci 250. COBOL Programming (4)
 - CSci 260. Machine Organization (4)
 - CSci 290. High Level Languages (4)
 - Info 471. Information Systems Planning (4)
 - Info 473. Information Forecasting (4)
 - Info 479. Studies in Information Management (4)
 - Info 481. Information Processing (4)
 - Info 484. Expert Systems (4)
 - Info 575. Internship in Information Management (4)
 - MSci 360. Statistical Analysis for Management (4)
 - MSci 400. Quantitative Decision Methods (4)
 - MSci 466. Production Planning and Operations Research (4)
 - MSci 470. Inventory Control (4)
 - MSci 575. Internship in Management Science (4)

Information Management Speciality Area

- A. Info 471. Information Systems Planning (4)
- B. Info 473. Information Forecasting (4)
- C. Info 481. Information Processing (4)
- D. MSci 360. Statistical Analysis for Management (4)
- E. *Eight units chosen from:*
 - Info 282. Business Systems I (4)
 - Info 283. Business Systems II (4)
 - Info 476. Systems Analysis and Design (4)

- Info 477. Decision Support Systems (4)
- Info 479. Studies in Information Management (4)
- Info 484. Expert Systems (4)
- Info 575. Internship in Information Management (4)
- MSci 400. Quantitative Decision Methods (4)
- MSci 466. Production Planning and Operations Research (4)
- MSci 470. Inventory Control (4)
- MSci 575. Internship in Management Science (4)

International Business Concentration

1. Anth 470. Culture Change and Dynamics (4)
2. Econ 430. International Economics (4)
3. Fin 433. International Business Finance (4)
4. Mgmt 405. Management of International Operations (4)
5. Mktg 470. International Marketing Management (4)
6. *Twelve units in the same language chosen from:*
 - Fren 214. Conversation (4)
 - Fren 302. Advanced French Composition (4)
 - Fren 309. French for Translators (4)
 - or
 - Ger 214. Conversation (4)
 - Ger 309. Advanced German Composition (4)
 - Ger 312. Practical Translation (4)
 - or
 - Span 212. Composition (4)
 - Span 302. Theory and Practice in Composition (4)
 - Span 314. Advanced Conversation (4)
 - or
 - twelve units of upper-division course work in the same language other than French, German or Spanish.

Note: Students may have any or all of the above listed foreign language courses waived by demonstrating equivalent language proficiency. Responsibility for determining this proficiency in all other languages rests with an elected faculty committee composed of two members each from the School of Business and Public Administration and the Department of Foreign Languages. Students having any of these foreign language courses waived must substitute an equal number of units from the electives listed below.

7. *Twelve units of electives chosen from:*
 - Admn 595. Independent Study (4)
 - Anth 460. Language and Culture (4)

- Econ 420. Comparative Economic Systems (4)
 Econ 450. Economic Development (4)
 Fin 434. Export-Import Financing (4)
 Fren 340. Advanced Conversation (4)
 Ger 310. Advanced German Conversation (4)
 Hist 503. Europe in the Nuclear Age (4)
 Hist 556. Foreign Relations of the United States (4)
 Hum 460. Culture Studies (4)
 Mgmt 575. Internship in Management (4)
 Mktg 440. Marketing Research (4)
 Mktg 472. Import-Export Management (4)
 PSci 300. Western Political Systems (4)
 PSci 400. International Politics (4)
 PSci 500. International Law (4)
 Span 314. Advanced Conversation (if not taken as part of the twelve unit language requirement listed above) (4)

Management Science Concentration

1. Info 282. Business Systems I (4)
2. Info 471. Information Systems Planning (4)
3. Info 473. Information Forecasting (4)
4. MSci 355. Statistical Software (2)
5. MSci 360. Statistical Analysis for Management (4)
6. MSci 400. Quantitative Decision Methods (4)
7. MSci 466. Production Planning and Operations Research (4)
8. MSci 467. Research Methods (4)
9. MSci 470. Inventory Control (4)
10. MSci 499. Practicum in Management Science (2)
11. *Eight units of electives chosen from:*
 Econ 480. Introduction to Mathematical Economics (4)
 Econ 490. Introduction to Econometrics (4)
 Info 283. Business Systems II (4)
 MSci 468. Advanced Production Management (4)
 MSci 575. Internship in Management Science (4)

Marketing Concentration

1. Mktg 410. Consumer Behavior (4)
2. Mktg 420. Advertising (4)
3. Mktg 430. Sales Techniques (4)
4. Mktg 440. Marketing Research (4)
5. Mktg 450. Distribution (4)
6. Mktg 496. Marketing Planning and Strategy (4)
7. *Twenty units chosen from the following, selected in consultation with a marketing faculty advisor: (A program plan should be filed in the department office. Substitutions*

from related disciplines are considered by petition.)

- Mktg 415. Product Management (4)
 Mktg 423. Advertising Campaign (4)
 Mktg 426. Sales Promotion (4)
 Mktg 431. Sales Management (4)
 Mktg 438. Industrial Marketing (4)
 Mktg 444. Market Research Practicum (4)
 Mktg 445. Advertising Research (4)
 Mktg 460. Retailing (4)
 Mktg 462. Merchandising (4)
 Mktg 470. International Marketing Management (4)
 Mktg 472. Import-Export Management (4)
 Mktg 575. Internship in Marketing (4)
 Mktg 590. Seminar in Marketing (4)

MINOR IN BUSINESS ADMINISTRATION

Requirements (28 units)

Requirements for a minor in Business Administration:

Lower-division requirements (16 units)

1. Acct 211. Principles of Accounting I (4)
2. Acct 212. Principles of Accounting II (4)
3. Econ 200. Principles of Microeconomics (4)
4. Info 220. Fundamentals of Business Data Processing (4)

Upper-division requirements (12 units)

1. Fin 313. Business Finance (4)
 2. Mgmt 302. Management and Organizational Behavior (4)
- or
- Psyc 302. Management and Organizational Behavior (4)
3. Mktg 305. Marketing Principles (4)

MINOR IN PUBLIC ADMINISTRATION

Requirements (28 units)

Requirements for a minor in Public Administration:

Lower-division requirement (4 units)

1. Econ 200. Principles of Microeconomics (4)

Upper-division requirements (24 units)

1. Econ 475. Public Finance (4)
 2. Mgmt 302. Management and Organizational Behavior (4)
- or
- Psyc 302. Management and Organizational Behavior (4)

3. PA 380. Introduction to Public Administration (4)
or
PSci 380. Introduction to Public Administration (4)
4. PA 462. Public Personnel Administration (4)
5. PA 463. Governmental Budgeting (4)
6. PA 480. Organizational Problems in Public Administration (4)

DEPARTMENTAL HONORS

Students majoring in Administration are eligible to receive departmental honors if the following conditions are met:

1. At least four courses in the concentration are completed at this university;
2. A minimum of 3.5 grade-point average for all courses satisfying the requirements for the major;
3. One of the following:
 - A. A minimum of 3.8 for all courses satisfying the requirements of the concentration;
 - B. A grade of "A" in a specific Administration 595 Independent Study course, developed for honors consideration;
 - C. Author or co-author an article accepted for publication in a leading scholarly journal in their field;

The honor is awarded by the faculty of the department, and students who wish to receive this distinction should initiate the process by submitting a letter of application to the appropriate department office at the beginning of their senior year.

CERTIFICATE PROGRAMS

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Accounting Certificate

Certificate Requirements (32 units)

1. Acct 211. Principles of Accounting I (4)
2. Acct 212. Principles of Accounting II (4)

3. Acct 340. Managerial Accounting (4)
or
Acct 344. Cost Accounting (4)
4. Acct 372. Intermediate Accounting (4)
5. Acct 373. Problem Areas in Intermediate Accounting (4)
6. Acct 374. Reporting Issues in Intermediate Accounting (4)
7. *Eight units of electives chosen in consultation with an advisor:*
 - Acct 315. Accounting Information Systems (4)
 - Acct 426. Introduction to Taxation I (4)
 - Acct 438. Auditing (4)
 - Acct 439. Advanced Accounting (4)
 - Acct 527. Introduction to Taxation II (4)
 - Acct 590. Seminar in Accounting (4)
 - Fin 313. Business Finance (4)
 - Fin 314. Corporate Financial Management (4)
 - Fin 430. Financial Theory and Practice (4)
 - Fin 445. Financial Analysis and Decision-Making (4)
 - PA 568. Accounting for Government and Not-for-Profit Organizations (4)

Financial Management Certificate

Certificate Requirements (32 units)

1. Acct 211. Principles of Accounting I (4)
2. Acct 212. Principles of Accounting II (4)
3. Fin 313. Business Finance (4)
4. Fin 314. Corporate Financial Management (4)
5. Fin 430. Financial Theory and Practice (4)
6. Fin 435. Investment Analysis (4)
7. *Eight units of electives chosen in consultation with an advisor:*
 - Acct 340. Managerial Accounting (4)
 - Acct 372. Intermediate Accounting (4)
 - Acct 373. Problem Areas in Intermediate Accounting (4)
 - Acct 426. Introduction to Taxation I (4)
 - Fin 432. Financial Institutions and Capital Formation (4)
 - Fin 433. International Business Finance (4)
 - Fin 445. Financial Analysis and Decision-Making (4)

General Business Certificate

Certificate Requirements (32 units)

1. Acct 211. Principles of Accounting I (4)
2. Acct 212. Principles of Accounting II (4)
3. Fin 313. Business Finance (4)
4. Mgmt 302. Management and Organizational Behavior (4)
or
Psyc 302. Management and Organizational Behavior (4)
5. Mgmt 330. Legal Environment of Business (4)
6. Mgmt 455. Human Resources Management (4)

7. Mktg 305. Marketing Principles (4)
8. MSci 304. Principles of Production and Operations Management (4)

Human Resources Management Certificate

Certificate Requirements (32 units)

1. Mgmt 302. Management and Organizational Behavior (4)
or
Psyc 302. Management and Organizational Behavior (4)
2. Mgmt 335. Business and Society (4)
3. Mgmt 455. Human Resources Management (4)
or
Psyc 355. Industrial Psychology (4)
4. Mgmt 457. Industrial and Labor Relations (4)
5. Mgmt 458. Fair Employment Practices (4)
6. *Twelve units of electives chosen in consultation with an advisor:*
Mgmt 350. Administrative Communications (4)
Mgmt 355. Management of Administrative Conflict (4)
Mgmt 402. Studies in Organizational Behavior (4)
Mgmt 403. Interpersonal Relations (4)
or
Comm 403. Interpersonal Relations (4)
Mgmt 432. Human Factors in System Development (4)
Mgmt 451. Organization and Management Theory (4)
Mgmt 456. Psychology of Human Resources (4)
PA 462. Public Personnel Administration (4)
PA 557. Public Sector Labor Relations (4)

Information Management Certificate

Certificate Requirements (32 units)

1. Info 220. Fundamentals of Business Data Processing (4)
2. Info 309. Information Management (4)
3. *Twenty-four units of electives chosen in consultation with an advisor:*
Info 282. Business Systems I (4)
Info 283. Business Systems II (4)
Info 471. Information Systems Planning (4)
Info 472. Information Technology (4)
Info 473. Information Forecasting (4)
Info 474. Data Base Management (4)
Info 476. Systems Analysis and Design (4)
Info 477. Decision Support Systems (4)
Info 478. Information Problem Solving (4)
Info 479. Studies in Information Management (4)
Info 481. Information Processing (4)
Info 484. Expert Systems (4)

- Info 490. Information Policies and Strategies (4)
- Info 575. Internship in Information Management (4)

Local Government Planning Certificate

Certificate Requirements (32 units)

1. PA 463. Governmental Budgeting (4)
2. PA 480. Organizational Problems in Public Administration (4)
3. PA 521. Principles of Planning (4)
4. PA 564. Local Public Administration (4)
5. *Sixteen units of electives chosen in consultation with an advisor:*
Econ 360. Economics of the Environment (4)
Econ 475. Public Finance (4)
Geog 415. Urban Planning and Land Development (4)
Geog 440. Urban Geography (4)
HSci 355. Health, Consumer and Environmental Law (4)
HSci 372. Environmental Administration and Environmental Impact Reporting (4)
HSci 401. Land Use: Health Aspects (4)

Marketing Management Certificate

Certificate Requirements (32 units)

1. Mktg 305. Marketing Principles (4)
2. Mktg 410. Consumer Behavior (4)
3. Mktg 420. Advertising (4)
4. Mktg 430. Sales Techniques (4)
5. Mktg 440. Marketing Research (4)
6. Mktg 450. Distribution (4)
7. Mktg 470. International Marketing Management (4)
8. Mktg 496. Marketing Planning and Strategy (4)

Small Business Management Certificate

Certificate Requirements (40 units)

1. Acct 211. Principles of Accounting I (4)
2. Acct 212. Principles of Accounting II (4)
3. Fin 313. Business Finance (4)
4. Mgmt 302. Management and Organizational Behavior (4)
or
Psyc 302. Management and Organizational Behavior (4)
5. Mgmt 442. Small Business Management (4)
6. Mgmt 515. Small Business Consulting (4)
7. Mktg 305. Marketing Principles (4)
8. *Twelve units of electives chosen in consultation with an advisor:*
Fin 433. International Business Finance (4)
Fin 445. Financial Analysis and Decision-Making (4)

- Mgmt 405. Management of International
Operations (4)
Mgmt 455. Human Resources Management (4)
Mktg 420. Advertising (4)
Mktg 460. Retailing (4)
Mktg 470. International Marketing
Management (4)
-

COURSE OFFERINGS IN ADMINISTRATION (Admn)

Upper Division

Enrollment in upper division courses restricted to students who have met all prerequisites and have completed at least 89.9 quarter units (junior class level). Students who do not meet these requirements will be disenrolled.

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units.)

AMERICAN STUDIES

Department of English

*Pfau Library Building, Room 236B
880-5824*

Bachelor of Arts

American Studies - Track I
American Studies - Track II

Teaching Credential Program

Multiple Subject

The American Studies major provides students with a broad introduction to American culture. The major incorporates course work from a variety of disciplines, and it encourages students to recognize the diversity of our culture. Consequently, American Studies is an appropriate program for those students who wish to be informed citizens as well as for those who also are looking for a useful context for careers in education, government, law, library work and related fields.

The major has two tracks. Track I consists of a basic set of requirements in American literature, art and history. These requirements provide students with a historical overview of the culture as well as the investigative methods for understanding that culture. Related electives allow students to pursue their individual interests. This plan totals 72 units. With additional course work in either English or History, a student also can complete a single-subject waiver program for secondary-school teachers.

Track II fulfills the requirements of the Liberal Studies major. Like the Liberal Studies major, it contains options for credential and non-credential candidates. Consequently, the Track can qualify students for the waiver of the examination requirement for the multiple-subject teaching credential for elementary-school instructors. Or, if students choose the non-credential options, the Track still provides a broad undergraduate experience that incorporates the general education requirements of the university while focusing on dominant themes of American culture. Track II totals 154 units.

Students who are interested in earning a teaching credential in either multiple subject or a single subject should consult the section, "Basic Teaching Credentials," in this catalog, Page 138.

B.A. IN AMERICAN STUDIES (TRACK I)

Requirements (72 units)

Lower-division prerequisites to Track I within general education (12 units):

1. Eng 140. Major American Authors (4)

2. PSci 203. American Government (4)
3. SSci 146. American Civilization (4)

Note: Social Sciences 146. American Civilization and Political Science 203. American Government fulfill categories D-1 and D-2 respectively in general education requirements. English 140. Major American Authors should be taken in category H of the general education requirements. These units cannot be counted elsewhere in Track I below:

Requirements for the B.A. in American Studies - Track I:

Upper-division requirements (60 units)

A. Concepts and Methods (8 units)

1. AmSt 300. Introduction to American Studies (4)
2. Hum 344. Ideas in American Culture (4)

B. American Arts (12 units)

1. Art 311. Art of the United States to the End of the 19th Century (4)
2. *Four units on women and/or minorities chosen from:*
 - Anth 323. Native North American Art (4)
 - Art 323. Native North American Art (4)
 - Mus 351. Latin American Music (4)
 - Mus 352. Afro-American Music (4)
3. *Four units on American arts chosen from:*
 - Anth 323. Native North American Art (4)
 - Art 323. Native North American Art (4)
 - Art 413. Modern Art of the United States (4)
 - Mus 351. Latin American Music (4)
 - Mus. 352. Afro-American Music (4)
 - Mus 360. Music in the United States (4)
 - TA 461. American Drama (4)

Note: Students may receive credit for only one of the following:

- Anth 323. Native North American Art
- Art 323. Native North American Art

C. Historical and Social Contexts (24 units)

1. *Twelve units chosen from group a; and twelve units chosen from one other group b, c, d, e or f below:*
 - a. *Historical Periods:*
 - Hist 350. The American Colonies, 1607-1783 (4)
 - Hist 351. The Evolution of American Democracy, 1783-1840 (4)
 - Hist 354. Civil War and Reconstruction (4)
 - Hist 356. The United States, 1877-1917 (4)
 - Hist 357. The United States, 1917-1945 (4)
 - Hist 359. The United States Since 1945 (4)

- b. *Economics:*
 Econ 333. Women in the Economy (4)
 Econ 352. The Economics of Poverty and Discrimination (4)
 Econ 360. Economics of the Environment (4)
 Econ 370. The American Economy (4)
 Econ 421. Economic History of the United States (4)
 Hist 421. Economic History of the United States (4)

Note: *Students may receive credit for only one of the following:*

- Econ 421. Economic History of the United States
 Hist 421. Economic History of the United States

- c. *Religion:*
 Hist 380. History of World Religions (4)
 Soc 380. Sociology of Religion (4)
 SSci 345. Religious Expression in America (4)

- d. *Women and Minorities in America:*
 Anth 305. North American Prehistory (4)
 Anth 323. Native North American Art (4)
 Anth 351. Indians of North America (4)
 Art 323. Native North American Art (4)
 Econ 333. Women in the Economy (4)
 Econ 352. The Economics of Poverty and Discrimination (4)
 Hist 334. Black History II: The American Experience (4)
 Hist 391. Chicano History (4)
 Hist 513. Women in U.S. History (4)
 Hist 565. Ethnic Minorities in American History (4)
 PSci 340. Sex and Politics (4)
 PSci 352. Minority Politics (4)
 Soc 344. Sex Roles: The Life Cycle (4)
 Soc 410. Racial and Cultural Minorities (4)
 Soc 440. Power and Privilege (4)
 Soc 441. Black Social Stratification (4)
 Soc 442. Chicano Social Stratification (4)

Note: *Students may receive credit for only one of the following and may apply that credit in either the American Arts Category or the Historical and Social Contexts Category but not both:*

- Anth 323. Native North American Art
 Art 323. Native North American Art

- e. *Political Thought:*
 PSci 310. Classical Political Thought (4)
 PSci 311. Foundations of Modern Political Thought (4)
 PSci 314. American Political Thought (4)
 PSci 326. Political Parties and Interest Groups (4)
 PSci 410. American Constitutional Law (4)

- PSci 411. The Bill of Rights (4)
 PSci 530C. Studies in Political Theory: Liberalism (4)
 Soc 310. History of Sociological Theory (4)

- f. *Regionalism:*
 Anth 315. Archeology of the Southwest and California (4)
 Anth 352. Indians of the Southwest (4)
 Geog 302. Geography of California (4)
 Geog 350. Conservation and Natural Resources (4)
 Geog 440. Understanding the City (4)
 Hist 370A. History of California: California to 1890 (2)
 Hist 370B. History of California: California 1890-Present (2)
 Hist 560. History of the American West (4)
 Hist 566. Ethnic Minorities in the American Southwest: Past and Present (4)
 PSci 342. The Politics of the Environment (4)

D. American Literature (20 units)

1. *Four units chosen from: (Prerequisite to upper-division American Literature courses.)*

- Eng 301. Analysis of Poetry (4)
 Eng 302. Analysis of Drama (4)
 Eng 303. Analysis of Prose Fiction (4)
 TA 302. Analysis of Drama (4)

2. *Twelve units in periods as follows:*

- Eng 330. American Literature I (4)
 Eng 331. American Literature II (4)
 Eng 332. American Literature III (4)

Note: At least four units on American minorities and/or women must be chosen from categories D3, E, or F below.

3. *Four units of electives chosen from:*

- Eng 314. American Indian Literature (4)
 Eng 322. Studies in Literary Themes, Genres, or Authors (With appropriate topic approved by American Studies Advisor.) (4)
 Eng 339. Black Literature (4)

E. American Themes Elective (4 units)

1. Four additional upper-division units chosen from one of the groups a, b, c, d, e or f in category C;

OR

2. Four units chosen from courses on American subjects in Anthropology, Economics, Geography, History, Philosophy, Political Science and Sociology in consultation with an American Studies advisor.

F. Capstone (4 units)

1. *Four units chosen from:*

- AmSt 590. Special Topics in American Studies (4)
 Eng 515. Senior Seminar in Literature (With appropriate topic approved by American Studies coordinator.) (4)

required instead to take four units of upper-division general education course work from among those courses listed under the General Education Elective Options, see category G.

B.A. IN AMERICAN STUDIES (TRACK II)

Requirements (154 units)

Students fulfill both the general education and the liberal studies requirements by pursuing this plan as directed below. EACH COURSE ONLY CAN BE COUNTED ONCE WITHIN THE PLAN. The distribution of units is as follows:

BASIC PROGRAM (134 units)

- A. Language Arts (24 units)
- B. Humanities and the Arts (20-24 units)
(24 units for *Credential Candidates*)
- C. Mathematics and Natural Sciences (32 units)
- D. Social and Behavioral Sciences (24 units)
- E. Lifelong Understanding (6 units)
- F. Multicultural/Gender Category
- G. General Education Elective Options (4-8 units)
- H. American Studies Themes (20-24 units)
(20 units for *Credential Candidates*)

CONCENTRATION (20 units)

- I. American Literature (20 units)

AMERICAN STUDIES TOTAL (154 units)

Requirements for the B.A. in American Studies - Track II:

A 2.0 must be maintained in all breadth areas of the Basic Program.

A. Language Arts Breadth Area (24 units)

1. *Written Communication (G.E.):*
Eng 101. Freshman Composition (4)
2. *Upper-division Writing Requirement (G.E.), Liberal Studies recommends English 495. Expository Writing; but any of the following courses qualifies, four units chosen from:*
Educ 495. Expository Writing for Education (4)
Eng 495. Expository Writing (4)
Hum 495. Expository Writing for the Humanities (4)
Mgmt 495. Expository Writing for Administration (4)
NSci 495. Expository Writing for the Natural Sciences (4)
SSci 495. Expository Writing for the Social Sciences (4)

Note: This requirement also can be met by passing a proficiency examination. Students who pass the examination will be

3. *Oral Communication (G.E.):*
Comm 120. Oral Communication (4)
 4. *Literature (G.E.), four units chosen from:*
Comm 281. Literature of Rhetorical Discourse (4)
Eng 110. World Literature I (4)
Eng 111. World Literature II (4)
Eng 160. World Drama (4)
Eng 170. Studies in Literature (4)
Eng 281. Literature of Rhetorical Discourse (4)
TA 160. World Drama (4)
TA 212. Oral Interpretation of Literature (4)
 5. *Development of Language:*
 - a. *Credential candidates, four units as follows:*
Eng 311. The English Language (4)
 - b. *Non-credential candidates, four units chosen from:*
Eng 311. The English Language (4)
Fren 306. French Linguistics (4)
Phil 484. Philosophy of Language (4)
Span 415. Comparative Linguistics: Spanish/English (4)
 6. *Analysis of Literature, four units chosen from:*
Eng 301. Analysis of Poetry (4)
Eng 302. Analysis of Drama (4)
Eng 303. Analysis of Prose Fiction (4)
TA 302. Analysis of Drama (4)
- B. Humanities and the Arts Breadth Area (non-credential candidates 20 units, credential candidates 24 units)**
1. *Critical Thinking (G.E.), four units chosen from:*
Comm 180. Critical Thinking Through Argumentation (4)
Math 180. Critical Thinking Through Problem Solving (4)
Phil 105. Critical Thinking Through Argument Analysis (4)
Phil 205. Critical Thinking Through Symbolic Logic (4)
Psyc 105. Critical Thinking Through Problems Analysis (4)
Soc 180. Critical Thinking about Social Problems (4)
 2. *Philosophy (G.E.), four units chosen from:*
Phil 190. Introduction to Philosophy (4)
Phil 250. Values, Technology and Society (4)
Phil 270. Introductory Philosophy of Religion (4)
Phil 275. Eastern Views of Life (4)
Phil 280. Knowledge and Reality (4)

3. *Foreign Language (G.E.):*a. *For students with the equivalent of two-years high-school study in the selected language, four units chosen from:*

FLan 150. Independent Intermediate Language Study (4)

Fren 150. Intermediate French (4)

Fren 212. Composition (4)

Fren 214. Conversation (4)

Fren 216. Introduction to Literary Texts (4)

Ger 150. Intermediate German (4)

Ger 212. Composition (4)

Ger 214. Conversation (4)

Ger 216. Introduction to Literary Texts (4)

Span 150. Intermediate Spanish (4)

Span 155. Intermediate Spanish for Spanish Speakers (4)

Span 212. Composition (4)

Span 214. Conversation (4)

Span 216. Introduction to Literary Texts (4)

b. *For students beginning a new language, eight units chosen from groups 1, 2, 3 or 4 below: (Credit the four units for the 101 course in category B5.1.)*

1. FJan 101. Independent Language Study I (4)

and

FLan 102. Independent Language Study II (4)

2. Fren 101. College French I (4)

and

Fren 102. College French II (4)

3. Ger 101. College German I (4)

and

Ger 102. College German II (4)

4. Span 101. College Spanish I (4)

and

Span 102. College Spanish II (4)

Note: *Students pursuing the B.A. in American Studies cannot include in category B3 the following courses:*

Fren 290. French Literature in English

Ger 290. German Literature in English

Span 290. Spanish and Latin American Literature in English

4. *Arts:*a. *Four units in art (G.E.) chosen from:*

Art 200. Studies in Art (4)

Hum 180. The Art of Film (4)

Mus 180. Studies in Music (4)

TA 260. Introduction to Theatre (4)

b. *Credentia candidates only, a minimum of four additional units in arts activity/arts in the classroom chosen from:*

Art 201. Foundation Studio in Art (5)

Art 203. Foundation Studio in Art (5)

Art 204. Drawing and Life Drawing (5)

Art 304. Advanced Drawing and Life Drawing (5)

Art 335. Painting I (5)

Art 336. Advanced Painting (5)

Art 340. Sculpture I (5)

Art 341. Advanced Sculpture (5)

Art 354. Ceramics I (5)

Art 357. Advanced Ceramics (5)

Art 360. Printmaking I (5)

Art 361. Advanced Printmaking (5)

Art 365. Directed Studio Problems (1-2)

Art 368. Woodworking and Furniture Design I (5)

Art 369. Advanced Woodworking and Furniture Design (5)

Art 375. Glass (5)

Art 376. Jewelry and Metalsmithing (5)

Art 380. Communications Design I (5)

Art 381A. Advanced Communications Design (5)

Art 381B. Advanced Communications Design (2.5)

Art 390. Beginning Photography (5)

Art 392. Advanced Photography (5)

Art 386. Audio and Video Media (4)

Art 395. Art in the Classroom (5)

Comm 243A. Communication Practicum: Journalism, Photojournalism and Public Relations (2)

Comm 243B. Communication Practicum: Radio and Television (2)

Comm 382. Intercollegiate Forensics (2)

Comm 386. Audio and Video Media (4)

Mus 205. Class Guitar (1)

Mus 206. Class Voice (1)

Mus 220. Class Piano I (1)

Mus 221. Class Piano II (1)

Mus 222. Class Piano III (1)

Mus 380. Chamber Orchestra (1)

Mus 381. Wind Ensemble (1)

Mus 382A. Chamber Music: Woodwinds (1)

Mus 382C. Chamber Music: Flute Choir (1)

Mus 382D. Chamber Music: Brass Quintet (1)

Mus 382E. Chamber Music: Saxophone Ensemble (1)

Mus 382F. Chamber Music: Guitar Ensemble (1)

Mus 382G. Chamber Music: Clarinet Ensemble (1)

Mus 385. Concert Choir (1)

Mus 386. Chamber Singers (1)

Mus 387. Opera Workshop (1)

Mus 391. Jazz Ensemble (1)

Mus 395. Collegiate Chorus (1)

Mus 396. Reverence Singers (1)

Mus 410. Music in the Elementary Schools (2)

Mus 531. Music in the Classroom (4)

- Mus 570. Creating Music (2)
- TA 131. Stage Makeup (2)
- TA 232. Lighting and Sound (2)
- TA 233. Costume Construction (2)
- TA 235. Fundamentals of Stage Design (4)
- TA 239. Stagecraft (2)
- TA 245. Beginning Theatre Movement (2)
- TA 251. Acting I (3)
- TA 252. Acting II (3)
- TA 253. Voice for the Stage (2)
- TA 312. Oral Interpretation for the Theatre (3)
- TA 320A. Theatre Practicum: Performance (2)
- TA 320B. Theatre Practicum: Imagination Players (2)
- TA 320C. Theatre Practicum: Touring Theatre (2)
- TA 320D. Theatre Practicum: Technical Production (2)
- TA 337. Design: Costume Design (3)
- TA 345A. Theatre Movement: Period Manners and Stage Encounters (2)
- TA 345B. Theatre Movement: Physical Characterization (2)
- TA 382. Readers Theatre in the Classroom (4)
- TA 385. Acting for Non-Majors (4)
- TA 481. Creative Drama in the Classroom (4)

5. *Electives in Humanities, four units chosen from groups 1 or 2 below: (When group 1 is chosen the appropriate 102 course is counted in category B3.b.)*

1. FLan 101. Independent Language Study I (4)
- Fren 101. College French I (4)
- Ger 101. College German I (4)
- Span 101. College Spanish I (4)
2. *Four upper-division units chosen from: Communication, Foreign Language in Translation, French, German, Humanities, Philosophy and Spanish.*

OR

Four upper-division units chosen from: Courses in Art History and Music History.

C. Mathematics and Natural Sciences Breadth Area (32 units)

1. *Mathematics (G.E.), four units chosen from:*
 - Math 110. College Algebra (4)
 - Math 115. The Ideas of Mathematics (4)
 - Math 120. Pre-Calculus Mathematics (4)
 - Math 211. Basic Concepts of Calculus (4)
2. *Mathematical Applications, four units chosen from:*
 - Math 211. Basic Concepts of Calculus (4)

- Math 212. Calculus II (4)
- Math 302. Problem Solving in Mathematics (4)

Note: Math 211. Basic Concepts of Calculus may not be taken for credit by students who have received credit for this course in category C1.

3. *Life Science (G.E.), five units chosen from:*
 - Biol 100. Topics in Biology (5)
 - Biol 200. Biology of the Cell (5)
 - Biol 201. Biology of Organisms (5)
 - Biol 202. Biology of Populations (5)
 - HSci 120. Health and Society: An Ecological Approach (5)
4. *Physical Science (G.E.), a minimum of five units chosen from:*
 1. Chem 100. Chemistry in the Modern World (5)
 2. Chem 205. Fundamentals of Chemistry I: General Chemistry (5)
 3. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
 4. Geog 103. Physical Geography (5)
 5. Geol 101. Physical Geology (5)
 6. Phys 100. Physics in the Modern World (5)
 7. Phys 103. Descriptive Astronomy (5)
 8. Phys 121. Basic Concepts of Physics I (5)
 9. Phys 221. General Physics I (5)
5. *Special Topics in Science and Technology (G.E.), two units chosen from:*
 - Biol 216. Genetics and Society (2)
 - Biol 217. Biology of Sexually Transmitted Diseases (2)
 - Chem 105. Chemicals in Our Environment (2)
6. *Mathematics and Natural Sciences Electives:*
 - a. *Credential candidates, eight units as follows:*
 1. CSci 127. Introduction to Computer Technology for Educators (4)
 2. Math 301. Basic Mathematics for Educators (4)
 - b. *Non-credential candidates, eight units, at least four units must be upper-division, chosen from:*
 - Biology, Chemistry, Computer Science, Earth Science, Health Science, Mathematics, Natural Sciences or Physics courses. *At least two units must be drawn from:*
 - CSci 121. Computer Technology and People (2)
 - CSci 123. Using Computer Software (2)
 - CSci 125. Programming in BASIC (2)
 - CSci 127. Introduction to Computer Technology for Educators (4)

Note: *The following courses can be used to satisfy only one category and students CANNOT RECEIVE CREDIT FOR BOTH:*

CSci 121. Computer Technology and People

and

CSci 127. Introduction to Computer Technology for Educators

OR

CSci 123. Using Computer Software and

CSci 127. Introduction to Computer Technology for Educators

7. *Integrative Capstone in the Natural Sciences (G.E.), four units chosen from:*

NSci 300. Science and Technology (4)

NSci 310. The Environment and Human Survival (4)

NSci 312. Scientific Contributions to the Development of Civilization (4)

NSci 314. Life in the Cosmos (4)

NSci 320. Energy (4)

NSci 325. Perspectives on Gender (4)

NSci 351. Health and Human Ecology (4)

Note: *Students may receive credit for only one of the following courses:*

Hum 325. Perspectives on Gender

NSci 325. Perspectives on Gender

SSci 325. Perspectives on Gender

D. Social and Behavioral Sciences Breadth Area (24 units)

1. *American History and Civilization (G.E.), four units chosen from:*

Hist 200. United States History to 1877 (4)

Hist 201. United States History 1877 to the Present (4)

SSci 146. American Civilization (4)

2. *American Institutions (G.E.):*

PSci 203. American Government (4)

Note: The American History, Constitution, State and Local Government requirement can be met by taking Political Science 203 and either History 200, History 201 or Social Sciences 146. However, if this requirement is met by examination, then students still must take sixteen units of lower-division course work in categories D1 through D4.

3. *World Cultures (G.E.), four units chosen from:*

SSci 140. World Civilizations I, The Rise of Civilization (4)

SSci 142. World Civilizations II, The Civilizations of the East and the West (4)

SSci 144. World Civilizations III, The Expansion of Europe (4)

SSci 165. Regions and Peoples of the World (4)

4. *Discipline Perspectives (G.E.), four units chosen from:*

Anth 100. Introduction to Anthropology: Human Evolution (4)

Anth 102. Introduction to Anthropology: Culture and Society (4)

Econ 104. Introduction to Economics (4)

Geog 100. Introduction to Human Geography (4)

PSci 100. Introduction to Political Science (4)

Psyc 100. Introduction to Psychology (4)

Soc 100. The Study of Society (4)

5. *Social and Behavioral Sciences Elective:*

a. *Credential candidates, four units as follows:*
Psyc 320. Psychology of Middle Childhood (4)

b. *Non-credential candidates, four upper-division units chosen from Anthropology, Criminal Justice, Economics, History, Political Science, Psychology, Social Science, Sociology and Women's Studies.*

6. *Integrative Capstone in the Social and Behavioral Sciences and Multi-Cultural Gender Requirement, four units chosen from:*

SSci 316. Race and Racism (4)

SSci 325. Perspectives on Gender (4)

SSci 350. Roots of Modern Racism in America (4)

Note: *Students may receive credit for only one of the following courses:*

Hum 325. Perspectives on Gender

NSci 325. Perspectives on Gender

SSci 325. Perspectives on Gender

E. Lifelong Understanding (6 units)

1. *The Whole Person - physical and physiological issues (G.E.), two units chosen from:*

NSci 110. Health and Self Care (2)

PE 205. Foundations for Lifetime Fitness (2)

2. *The Whole Person - social and psychological issues (G.E.), two units chosen from:*

Psyc 115. Personal and Social Adjustment (2)

Soc 110. Choices in the Life Course (2)

3. *Physical Education (G.E.):*

a. *Non-credential candidates, two units chosen from:*

PE 101. Individual and Dual Activities (2)

PE 114. Physical Fitness and Conditioning Activities (2)

PE 117. Combative Activities (2)

PE 121. Team Activities (2)

PE 137. Aquatic Activities

PE 141. Dance Activities (2)

PE 146. Outing Skills Activities (2)

PE 147. A Fitness Odyssey (2)

PE 148. Leisure Sports (2)

PE 149. Independent Activity Project (2)

- b. *Credential candidates, two units chosen from courses listed in (3a) above. Students are encouraged to elect a dance course, P.E. 141.*

F. Multicultural/Gender Category

An appropriate Integrative Capstone course in the Social and Behavioral Sciences category D6 satisfies this four unit requirement.

G. General Education Elective Options Category (4-8 units)

1. Eng 140. Major American Authors (4)

Note: Students who pass the 495 proficiency examination (see category A2 in American Studies, Track 2) must take four additional upper-division units from the Elective Options category in general education. For the list of appropriate courses, see the general education requirements in this catalog Page 59.

H. American Studies Themes (Credential candidates 20 units, Non-credential candidates 24 units)

1. *Primary Concepts and Methods:*

AmSt 300. Introduction to American Studies (4)

Hum 344. Ideas in American Culture (4)

2. *American Arts:*

a. Art 311. Art of the United States to the End of the 19th Century (4)

b. *Non-credential candidates only, four additional units chosen from:*

Art 323. Native North American Art (4)

Art 413. Modern Art of the United States (4)

Mus 351. Latin American Music (4)

Mus 352. Afro-American Music (4)

Mus 360. Music in the United States (4)

TA 461. American Drama (4)

3. *Historical and Economic Context:*

a. *Four units chosen from:*

Hist 351. The Evolution of American Democracy, 1783-1840 (4)

PSci 314. American Political Thought (4)

b. *Four units chosen from:*

Econ 370. The American Economy (4)

Econ 421. Economic History of the United States (4)

Hist 421. Economic History of the United States (4)

I. American Literature (20 units)

1. *Upper-division Survey, twelve units as follows:*

Eng 330. American Literature I (4)

Eng 331. American Literature II (4)

Eng 332. American Literature III (4)

Note: Students are advised to take English 140. Major American Authors before beginning this survey. English 140. Major

American Authors counts under the General Education Elective Options, category G.

2. *Electives, eight units chosen from: (A course in American minorities and/or women must be included.)*

AmSt 590. Special Topics in American Studies (4)

Eng 314. American Indian Literature (4)

Eng 320. Children's Literature (4)

Eng 322. Studies in Literary Themes, Genres, or Authors (With appropriate topic approved by American Studies coordinator.) (4)

Eng 339. Black Literature (4)

Eng 515. Senior Seminar in Literature (With appropriate topic approved by American Studies coordinator.) (4)

COURSE OFFERINGS IN AMERICAN STUDIES (AmSt)

Upper Division

300. Introduction to American Studies

Concepts and methods essential to an interdisciplinary approach to American literature and art in a historical context. (4 units)

590. Special Topics in American Studies

Advanced independent study of selected figures, themes, or periods in American literature and art in a historical context. May be repeated for credit as topics change.

Prerequisites: American Studies 300; Art 311; Humanities 344; either English 331, 332 or 333; and consent of department. (4 units)

ANTHROPOLOGY

Department of Anthropology

Faculty Office Building, Room 249
880-5502

Bachelor of Arts

Anthropology - Track A

Anthropology - Track B

Minor

Anthropology

Certificate Programs

Latin American Studies

Museum Studies

The study of anthropology promotes an understanding of self and all mankind by exploring the human condition at all times and in all places. In the modern world in which every society depends upon other societies, ignorance of the goals, values and ways of life of others may become a fear leading to discrimination and racism in the community or to war and oppression between nations. The challenges of desert life for the Australian Aborigine and the problems of contemporary ghetto existence are of equal interest to the anthropologist, and courses in these topics and world ethnography are offered by the Anthropology Department. Human physical and cultural evolution, the distribution and significance of racial differences, the history and ecology of specific areas, and the role of language in culture are treated in courses in physical anthropology, archaeology and prehistory, and linguistics. The Anthropology major involves a two-track system, Track A (general anthropology) and Track B (museum studies).

Participation in the California State University's International Programs is one way students can experience other cultures first-hand. For further information, see Page 21.

B.A. IN ANTHROPOLOGY TRACK A (GENERAL ANTHROPOLOGY)

Requirements (48 units)

Requirements for the B.A. in Anthropology - Track A:

1. Anth 100. Introduction to Anthropology: Human Evolution (4)
2. Anth 102. Introduction to Anthropology: Culture and Society (4)
3. Anth 500. Great Ideas in Anthropology (4)

4. *A minimum of eight units chosen from archaeology/physical anthropology:*
 - A. Anth 302. African Archaeology (4)
 - B. Anth 303. Prehistory of the Middle East and Europe (4)
 - C. Anth 305. North American Prehistory (4)
 - D. Anth 306. Aztecs, Maya and Their Predecessors (4)
 - E. Anth 307. Incas and Their Predecessors (4)
 - F. Anth 312. Historical Archaeology (4)
 - or
 - Hist 312. Historical Archaeology (4)
 - G. Anth 315. Archaeology of the Southwest and California (4)
 - H. Anth 319. Experimental Archaeology and Ethnoarchaeology (5)
 - I. Anth 320. Archaeological Survey and Excavation (5)
 - J. Anth 321. Archaeological Laboratory Analysis (5)
 - K. Anth 323. Native North American Art (4)
 - or
 - Art 323. Native North American Art (4)
 - L. Anth 324. Pre-Columbian Art (4)
 - or
 - Art 324. Pre-Columbian Art (4)
 - M. Anth 325. Human Variation and the Concept of Race (4)
 - N. Anth 326. Human Origins (4)
 - O. Anth 327. Primate Evolution and Ecology (4)
5. *Eight units chosen from anthropology culture areas:*
 - Anth 351. Indians of North America (4)
 - Anth 352. Indians of the Southwest (4)
 - Anth 354. Cultures of Mexico and Central America (4)
 - Anth 356. Cultures of South America (4)
 - Anth 357. African Societies (4)
 - Anth 358. Peoples of the Middle East (4)
 - Anth 360. Peoples of Australia (4)
 - Anth 361. Peoples of Micronesia, Melanesia and Polynesia (4)
6. *Twelve units chosen from anthropology theory:*
 - A. Anth 300. Archaeology (4)
 - B. Anth 330. Cross-Cultural Child-Rearing Practices (4)
 - C. Anth 331. Anthropology of Human Development (4)
 - D. Anth 333. Sex and Gender in Cross-Cultural Perspective (4)
 - E. Anth 335. Cross-Cultural Perspectives on Crime and Deviance (4)
 - or
 - Anth 335A. Cross-Cultural Perspectives on Crime and Deviance (Self-paced) (4)
 - F. Anth 375. Museum Methods (4)
 - G. Anth 460. Language and Culture (4)

- H. Anth 466. Anthropology of Health, Illness and Healing (4)
 I. Anth 470. Culture Change and Dynamics (4)
 J. Anth 475. Cultural Ecology (4)
 K. Anth 480. Magic, Religion and Science (4)
 L. Anth 485. Applied Anthropology and Social Policy (4)
 M. Anth 490. Systems of Social Organization (4)
 N. Anth 492. Economic Anthropology (4)
 O. Anth 493. Urban Anthropology (4)
 7. Eight additional upper-division units in Anthropology (four units may be from a related field, as approved by an advisor).

B.A. IN ANTHROPOLOGY TRACK B (MUSEUM STUDIES)

Requirements (54 units)

Requirements for the B.A. in Anthropology - Track B:

1. Anth 100. Introduction to Anthropology: Human Evolution (4)
2. Anth 102. Introduction to Anthropology: Culture and Society (4)
3. Anth 375. Museum Methods (4)
4. *A minimum of four units chosen from archaeology/physical anthropology:*
 - A. Anth 302. African Archaeology (4)
 - B. Anth 303. Prehistory of the Middle East and Europe (4)
 - C. Anth 305. North American Prehistory (4)
 - D. Anth 306. Aztecs, Maya and Their Predecessors (4)
 - E. Anth 307. Incas and Their Predecessors (4)
 - F. Anth 312. Historical Archaeology (4)
or
Hist 312. Historical Archaeology (4)
 - G. Anth 315. Archaeology of the Southwest and California (4)
 - H. Anth 319. Experimental Archaeology and Ethnoarchaeology (5)
 - I. Anth 320. Archaeological Survey and Excavation (5)
 - J. Anth 321. Archaeological Laboratory Analysis (5)
 - K. Anth 323. Native North American Art (4)
or
Art 323. Native North American Art (4)
 - L. Anth 324. Pre-Columbian Art (4)
or
Art 324. Pre-Columbian Art (4)
 - M. Anth 325. Human Variation and the Concept of Race (4)
 - N. Anth 326. Human Origins (4)
- O. Anth 327. Primate Evolution and Ecology (4)
5. *Four units chosen from anthropology culture areas:*
 - Anth 351. Indians of North America (4)
 - Anth 352. Indians of the Southwest (4)
 - Anth 354. Cultures of Mexico and Central America (4)
 - Anth 356. Cultures of South America (4)
 - Anth 357. African Societies (4)
 - Anth 358. Peoples of the Middle East (4)
 - Anth 360. Peoples of Australia (4)
 - Anth 361. Peoples of Micronesia, Melanesia and Polynesia (4)
6. *Four units chosen from anthropology theory:*
 - A. Anth 300. Archaeology (4)
 - B. Anth 330. Cross-Cultural Child-Rearing Practices (4)
 - C. Anth 331. Anthropology of Human Development (4)
 - D. Anth 333. Sex and Gender in Cross-Cultural Perspective (4)
 - E. Anth 335. Cross-Cultural Perspectives on Crime and Deviance (4)
or
Anth 335A. Cross-Cultural Perspectives on Crime and Deviance (Self-paced) (4)
 - F. Anth 460. Language and Culture (4)
 - G. Anth 466. Anthropology of Health, Illness and Healing (4)
 - H. Anth 470. Culture Change and Dynamics (4)
 - I. Anth 475. Cultural Ecology (4)
 - J. Anth 480. Magic, Religion and Science (4)
 - K. Anth 485. Applied Anthropology and Social Policy (4)
 - L. Anth 490. Systems of Social Organization (4)
 - M. Anth 492. Economic Anthropology (4)
 - N. Anth 493. Urban Anthropology (4)
 - O. Anth 500. Great Ideas in Anthropology (4)
7. Anth 575. Internship in Anthropology (2-5) for a total of (8)
8. Art 205. Tools and Materials (2)
9. CSci 121. Computer Technology and People (2)
and
CSci 123. Using Computer Software (2)
10. PA 380. Introduction to Public Administration (4)
or
PSci 380. Introduction to Public Administration (4)
11. *A minimum of twelve units chosen from:*
 - Anth 321. Archaeological Laboratory Analysis (If not chosen in Category 4 above.) (5)

Art 201.	Foundation Studio in Art (4)
Art 203.	Foundation Studio in Art (4)
Art 380.	Communications Design I (4)
Art 390.	Beginning Photography (5)
Comm 341.	Fundamentals of Public Relations (4)
Geog 301.	Cartography (4)
PA 480.	Organizational Problems in Public Administration (4)

MINOR IN ANTHROPOLOGY

Requirements (28 units)

Requirements for a minor in Anthropology:

1. Anth 100. Introduction to Anthropology: Human Evolution (4)
2. Anth 102. Introduction to Anthropology: Culture and Society (4)
3. Twenty upper-division units chosen in consultation with an advisor.

DEPARTMENTAL HONORS

Students majoring in anthropology are eligible to receive honors in anthropology at graduation if the following conditions are met:

1. At least one-half of the course work required by the major is completed at this university;
2. A grade-point average of at least 3.5 in the major, both at this university and overall;
3. An overall undergraduate grade-point average of 3.0 or better;
4. Successful completion of Anthropology 597. Senior Honors Project, resulting in a thesis paper.

Applications for candidacy must be made by the beginning of the senior year. Approval of candidacy and of the project and project advisor rests with the department. The project advisor and one other faculty reader from the department will have responsibility for evaluation of the completed thesis paper.

CERTIFICATE PROGRAMS

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not

be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Latin American Studies

Certificate Requirements (32 units)

1. *Thirty-two units to be chosen from the following: (No more than twelve units may be taken from any one discipline.)*
 - A. Anth 306. Aztecs, Maya and Their Predecessors (4)
 - B. Anth 307. Incas and Their Predecessors (4)
 - C. Anth 354. Cultures of Mexico and Central America (4)
 - D. Anth 356. Cultures of South America (4)
 - E. Anth 324. Pre-Columbian Art (4)
or
Art 324. Pre-Columbian Art (4)
 - F. Art 328. Mexican Art (4)
 - G. FLaN 320. Masterpieces of Literature (when topic pertains to Latin America) (4)
 - H. Geog 321. Area Study: Latin America (4)
 - I. Geog 390A. Selected Topics in Geography: Tropical Geography (4)
History of Mexico (4)
 - J. Hist 390. History of Mexico (4)
 - K. Hist 469. Colonial Latin America (4)
 - L. Hist 470. Modern Latin America (4)
 - M. Hum 460. Cultural Studies (when topic pertains to Mexico or Latin America) (4)
 - N. Mus 351. Latin American Music (4)
 - O. SSci 304. Contemporary Latin America (4)
 - P. Span 400. Masterpieces in Spanish and Spanish American Literature (when topic pertains to Latin America) (4)
 - Q. Span 440. Mexican Literature (4)
 - R. Span 514. Seminar in Hispanic Language or Literature (when topic pertains to Latin America) (4)

Certificate in Museum Studies

Certificate Requirements (36 units)

1. Anth 375. Museum Methods (4)
2. Anth 575. Internship in Anthropology (2-5) for a total of (8)
3. Art 205. Tools and Materials (2)
4. Art 345. Gallery Management (2)
5. *A minimum of twelve units of electives, to be chosen from one of the following three groups of courses (A, B or C):*
 - A. 1. Anth 300. Archaeology (4)
 2. Anth 302. African Archaeology (4)
 3. Anth 303. Prehistory of the Middle East and Europe (4)
 4. Anth 306. Aztecs, Maya and Their Predecessors (4)

5. Anth 307. Incas and Their Predecessors (4)
6. Anth 312. Historical Archaeology (4)
or
Hist 312. Historical Archaeology (4)
7. Anth 315. Archaeology of the Southwest and California (4)
8. Anth 320. Archaeological Survey and Excavation (5)
9. Anth 321. Archaeological Laboratory Analysis (5)
10. Anth 323. Native North American Art (4)
or
Art 323. Native North American Art (4)
11. Anth 324. Pre-Columbian Art (4)
or
Art 324. Pre-Columbian Art (4)
- B. 1. Anth 351. Indians of North America (4)
2. Anth 352. Indians of the Southwest (4)
3. Anth 354. Cultures of Mexico and Central America (4)
4. Anth 357. African Societies (4)
5. Anth 358. Peoples of the Middle East (4)
6. Anth 360. Peoples of Australia (4)
7. Anth 361. Peoples of Micronesia, Melanesia and Polynesia (4)
8. Art 210A. Western Art History: Prehistoric Times through the Middle Ages (4)
9. Art 210B. Western Art History: Renaissance, Baroque and Rococo (4)
10. Art 210C. Western Art History: Modern Art - 1750 to the Present (4)
11. Art 306. Greek and Roman Art (4)
12. Art 308. Medieval Art (4)
13. Art 311. Art of the United States to the End of the 19th Century (4)
14. Art 314. The Art of Indigenous Peoples (4)
15. Art 316. Arts of the Ancient Near East and Egypt (4)
16. Art 317A. Topics in Far Eastern Art: India (4)
17. Art 317B. Topics in Far Eastern Art: China (4)
18. Art 317C. Topics in Far Eastern Art: Japan (4)
19. Art 321. Renaissance Art (4)
20. Art 323. Native North American Art (4)
- or

- Anth 323. Native North American Art (4)
21. Art 324. Pre-Columbian Art (4)
or
Anth 324. Pre-Columbian Art (4)
22. Art 327. Baroque and Rococo Art (4)
23. Art 328. Mexican Art (4)
24. Art 329. Chicano Art (4)
- C. 1. Art 411D. Studies in Art History (4)
2. Art 413. Modern Art of the United States (4)
3. Art 423. Nineteenth Century European Art (4)
4. Art 424. Modern European Art (4)
5. Any History course except History 395, 396, 399, 575, 589 and 595.
6. *A minimum of eight units of electives to be chosen from:*
- A. Art 201. Foundation Studio in Art (5)
- B. Art 203. Foundation Studio in Art (5)
- C. Art 380. Communications Design I (5)
- D. Art 390. Beginning Photography (5)
- E. Comm 341. Fundamentals of Public Relations (4)
- F. Geog 301. Cartography (4)
- G. PA 380. Introduction to Public Administration (4)
or
PSci 380. Introduction to Public Administration (4)
- H. PA 480. Organizational Problems in Public Administration (4)

COURSE OFFERINGS IN ANTHROPOLOGY (Anth)

Lower Division

100. Introduction to Anthropology: Human Evolution

Human biological and social evolution through time. (4 units)

102. Introduction to Anthropology: Culture and Society

Structure and dynamics of human cultural experience; comparative analysis of language, religion, economic patterns and social and political organization in traditional and complex societies. (4 units)

Upper Division

300. Archaeology

History of archaeological research, a survey of concepts and methods for the study of prehistoric culture and a summary of major sequences in prehistory. (4 units)

302. African Archaeology

Africa's past from the beginnings of humankind to the period of European contact. An examination of Africa's foremost role in the origins of culture and of anatomically modern humans, as well as the development of African civilizations. (4 units)

303. Prehistory of the Middle East and Europe

A survey of prehistory spanning the spread of people into the Middle East and Europe, the development of agriculture and the origins and growth of the earliest civilizations. (4 units)

305. North American Prehistory

Prehistory of North America from earliest times to the dawn of historic contact with the Old World after 1492. (4 units)

306. Aztecs, Maya and Their Predecessors

The origin, spread and decline of pre-Columbian civilizations in Mexico and adjacent areas. (4 units)

307. Incas and Their Predecessors

The origin, spread and decline of pre-Columbian civilizations in Peru and adjacent areas. (4 units)

312. Historical Archaeology

Use of archaeological methods to study historic peoples. Historical and archaeological methods and their results. Focus primarily on North America from A.D. 1492 to modern times. (Also offered as History 312. Students may not receive credit for both.) (4 units)

315. Archaeology of the Southwest and California

The prehistoric cultures of California and the American Southwest, their origins, characteristics and relationships. (4 units)

319. Experimental Archaeology and Ethnoarchaeology

Experimental and observational techniques that are important in reconstructing the past. This course has a practical/laboratory component that will assist students in understanding aspects of prehistoric technology and the formation of the archaeological record. *Prerequisite: consent of instructor.* (5 units)

320. Archaeological Survey and Excavation

Examines techniques and methods used to recover archaeological remains and information. Stresses the importance of research design and its relationship to methodology. Active participation in a field project under the direction of the instructor. Ten hours activity. *Prerequisite: consent of instructor.* (5 units)

321. Archaeological Laboratory Analysis

Examines techniques and methods used to analyze archaeological remains in the laboratory. Active participation in various laboratory projects under the direction of the instructor. Four hours lecture and three hours laboratory. *Prerequisite: consent of instructor.* (5 units)

323. Native North American Art

Art of American Indian and Eskimo peoples north of Mexico, from earliest prehistory to modern times. (Also offered as Art 323. Students may not receive credit for both.) (4 units)

324. Pre-Columbian Art

Art and architecture of pre-Columbian cultures with an emphasis on Mexico and Peru. (Also offered as Art 324. Students may not receive credit for both.) (4 units)

325. Human Variation and the Concept of Race

An inquiry into past and present interpretations of the significance of human physical differences. (4 units)

326. Human Origins

The archaeological, anatomical and other evidence for human origins examined within their geological and environmental contexts. Discussion of theories that attempt to explain how we became human. (4 units)

327. Primate Evolution and Ecology

A comparative study of our closest relatives (the apes, monkeys and other primates): their evolution, ecology, behavior, social organization and means of communication. (4 units)

330. Cross-Cultural Child-Rearing Practices

Cross-cultural examination of child-rearing practices from the perspective of major anthropological theories of personality formation and its relationship with culture. (4 units)

331. Anthropology of Human Development

A cross-cultural perspective on human development and the processes of personality formation and cultural transmission. (4 units)

333. Sex and Gender in Cross-Cultural Perspective

Examination and analysis of the changing position of women in selected societies around the world, including consideration of the sexual division of labor, marriage systems, male-female relations, and systems of myth and ideology concerning gender roles. (4 units)

335. Cross-Cultural Perspectives on Crime and Deviance

Cross-cultural examination of behavior regulation in human societies. Specific topics include cultural definition of crime and deviance, conflict resolution, processes of control and the distribution of authority and power. A self-paced version of this course (Anthropology 335A) is also available. Students may not receive credit for both Anthropology 335 and 335A. (4 units)

World Cultures (Anthropology 351-361)

Emphasis in the following courses is on major problems of current interest to the cultural anthropologist. Topics include general discussion of physical anthropology, language affiliations and culture, history of the area, the native populations, their relations with each other and to outside societies, and the effects of culture change upon them through time.

351. Indians of North America

(4 units)

352. Indians of the Southwest

(4 units)

354. Cultures of Mexico and Central America

(4 units)

356. Cultures of South America

(4 units)

357. African Societies

(4 units)

358. Peoples of the Middle East

(4 units)

360. Peoples of Australia

(4 units)

361. Peoples of Micronesia, Melanesia and Polynesia

(4 units)

375. Museum Methods

Introduction to the techniques of museum work, and to the history, theory and practice of museums. Includes curatorial methods, and the care, preservation, storage and exhibition of museum specimens. (4 units)

390. Selected Topics in Anthropology

An anthropological examination of a selected topic. May be repeated for credit as topics change. (4 units)

391. Selected Topics in Anthropology

An anthropological examination of a selected topic. May be repeated for credit as topics change. (2 units)

460. Language and Culture

Analysis of languages stressing the relationship of language to patterns of human behavior. (4 units)

466. Anthropology of Health, Illness and Healing

An anthropological examination of the varying cultural definitions, explanations and experiences of illness and health in a variety of cultures. Strategies which societies have developed to cope with disease and misfortune are investigated, including such things as shamanism and folk medicine. (4 units)

470. Culture Change and Dynamics

An examination and evaluation of the various theories that have been proposed to explain societal change using actual case study materials. (4 units)

475. Cultural Ecology

An examination of theories, methods and applications of the ecological perspective in the anthropological study of human cultures, and a cross-cultural comparison of adaptations to different ecological niches. (4 units)

480. Magic, Religion and Science

A comparative study of the widely varied attempts by members of human societies to order, control and make predictions about their physical and social environments. (4 units)

485. Applied Anthropology and Social Policy

Use of anthropological knowledge and methods in solving social problems in institutional, national and international settings. Includes consideration of policy-making, funding, sponsorship, establishing goals, project implementation, popular participation, ethics, evaluation and reporting. (4 units)

490. Systems of Social Organization

A comparative description and analysis of social integration in human societies. (4 units)

492. Economic Anthropology

An anthropological approach to the analysis of systems of production and exchange in nonindustrial societies. (4 units)

493. Urban Anthropology

Utilization of ethnographic and cross-cultural materials in an examination of anthropological concepts and methods for the study of urban environments and the processes of urbanization. (4 units)

500. Great Ideas in Anthropology

Major anthropological theories as applied to a topical area of anthropological study, such as human settlements, migrations, or innovation. Perspectives from cultural anthropology, archaeology, bioanthropology and linguistics will be discussed. *Prerequisite: consent of instructor.* (4 units)

575. Internship in Anthropology

Supervised work in public or private organizations (for example, museums) emphasizing practical applications of anthropological concepts. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and departmental approval of a written proposal submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

585. Fieldwork in Cultural Anthropology

Supervised design, execution and analysis of an individualized ethnographic field project. *Prerequisite: consent of instructor.* (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of eight units in Anthropology 595 may be applied toward graduation. Only four of those units may be applied to the major. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

597. Senior Honors Project

Original research in an area of anthropological studies, culminating in a major research report receiving approval of the anthropology faculty. Enrollment limited to students whose formal application for departmental honors is approved. (5 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

695. Independent Graduate Study

Graduate-level independent study in anthropology for students in the program for the Master of Arts with special major or in other graduate programs.

Prerequisites: consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken. (Credit to be arranged: 2 to 5 units)

ART

Accredited by the National Association of Schools of Art and Design

Department of Art

*Visual Arts Building, Room 123B
880-5802*

Bachelor of Arts

- Art - Plan I
- Art - Plan II
- Art - Plan III
- Art - Plan IV

Teaching Credential Program

- Art - Plan I
- Art - Plan II
- Art - Plan IV

Minor

- Art History
- Studio Art

Certificate Program

- Business Skills for the Artist

The challenge for visual artists is to discover what is already there, to open up and probe what is inside and outside themselves and to find a means of giving it back to the whole world. It is this adventure which is the focus of the Department of Art.

A student may either major or minor in art, and eventually choose one or more specific areas of concentration. The choice is governed by the student's experiences with various media, concepts and techniques, but this is not a rigid choice as new interactions among these elements are constantly being developed.

Four plans are available for students working for the Bachelor of Arts in Art and two options are available for a minor in art. The studio areas of concentration currently offered are: ceramics, crafts, graphic design, drawing, glass, jewelry and metalsmithing, painting, photography, printmaking, sculpture, and woodworking and furniture design.

In addition to their courses in art, students are urged to seek electives in related areas of creative expression. Suggested possibilities include acting, creative writing and music seminar in electronic composition.

Five-unit studio courses meet for eight scheduled hours per week and require an additional seven hours per week to be arranged on an individual basis. For 2 1/2-unit courses the requirements are four scheduled hours and 3 1/2 hours to be arranged. Field trips are required in most art history courses and several studio courses as well. Also, in many courses students are required to pay for materials used.

B.A. IN ART—PLAN I

Requirements (80 units)

This program is designed for students seeking a liberal education with an emphasis in art, and is recommended for those who wish to receive teaching credentials in art.

Requirements for the B.A. in Art— Plan I:

Lower-division requirements (27 units)

1. Art 201. Foundation Studio in Art (5)
2. Art 203. Foundation Studio in Art (5)
3. Art 204. Drawing and Life Drawing (5)
4. Art 210A. Western Art History: Prehistoric Times through the Middle Ages (4)
5. Art 210B. Western Art History: Renaissance, Baroque and Rococo (4)
6. Art 210C. Western Art History: Modern Art - 1750 to the Present (4)

Upper-division requirements (53 units)

1. *Eight upper-division units in the history of art chosen from:*
 - Art 306. Greek and Roman Art (4)
 - Art 308. Medieval Art (4)
 - Art 310. Eastern Art History (4)
 - Art 311. Art of the United States to the End of the 19th Century (4)
 - Art 314. The Art of Indigenous Peoples (4)
 - Art 316. Arts of the Ancient Near East and Egypt (4)
 - Art 317A. Topics in Far Eastern Art: India (4)
 - Art 317B. Topics in Far Eastern Art: China (4)
 - Art 317C. Topics in Far Eastern Art: Japan (4)
 - Art 321. Renaissance Art (4)
 - Art 323. Native North American Art (4)
 - Art 324. Pre-Columbian Art (4)
 - Art 327. Baroque and Rococo Art (4)
 - Art 328. Mexican Art (4)
 - Art 329. Chicano Art (4)
 - Art 333. History of Graphic Design (4)
 - Art 359. History of Photography (4)
 - Art 410. Studies in Art History (4)
 - Art 413. Modern Art of the United States (4)
 - Art 423. Nineteenth Century European Art (4)
 - Art 424. Modern European Art (4)
 - Art 459. Contemporary Art Theory and Criticism (4)
 - Art 510. Colloquium in Art (4)
2. *Twenty units of studio courses in a single area of concentration chosen from one of the following groups (A,B,C,D,E or F): (Note: Check course descriptions to ascertain which courses may be repeated for credit.)*
 - A. Art 304. Advanced Drawing and Life Drawing (5)

- Art 335. Painting I (5)
 Art 336. Advanced Painting (5)
 B. Art 340. Sculpture I (5)
 Art 341. Advanced Sculpture (5)
 C. Art 354. Ceramics I (5)
 Art 357. Advanced Ceramics (5)
 Art 375. Glass (5)
 D. Art 313. Printing Production (5)
 Art 360. Printmaking I (5)
 Art 361. Advanced Printmaking (5)
 E. Art 368. Woodworking and Furniture Design I (5)
 Art 369. Advanced Woodworking and Furniture Design (5)
 F. Art 390. Beginning Photography (5)
 Art 391. Intermediate Photography (5)
 Art 392. Advanced Photography (5)
 Art 393. Photographic Illustration and Design (5)
3. *Ten units, not duplicating the area of concentration, chosen from:*
 Art 304. Advanced Drawing and Life Drawing (5)
 Art 335. Painting I (5)
 Art 338. Agency and Studio Skills (5)
 Art 360. Printmaking I (5)
 Art 390. Beginning Photography (5)
4. *Ten units, not duplicating the area of concentration, chosen from:*
 Art 340. Sculpture I (5)
 Art 354. Ceramics I (5)
 Art 368. Woodworking and Furniture Design I (5)
 Art 375. Glass (5)
 Art 376. Jewelry and Metalsmithing (5)
5. Art 515. Senior Seminar: Art and Society (5)
- Art 306. Greek and Roman Art (4)
 Art 308. Medieval Art (4)
 Art 310. Eastern Art History (4)
 Art 311. Art of the United States to the End of the 19th Century (4)
 Art 314. The Art of Indigenous Peoples (4)
 Art 316. Arts of the Ancient Near East and Egypt (4)
 Art 317A. Topics in Far Eastern Art: India (4)
 Art 317B. Topics in Far Eastern Art: China (4)
 Art 317C. Topics in Far Eastern Art: Japan (4)
 Art 321. Renaissance Art (4)
 Art 323. Native North American Art (4)
 Art 324. Pre-Columbian Art (4)
 Art 327. Baroque and Rococo Art (4)
 Art 328. Mexican Art (4)
 Art 329. Chicano Art (4)
 Art 333. History of Graphic Design (4)
 Art 359. History of Photography (4)
 Art 410. Studies in Art History (4)
 Art 413. Modern Art of the United States (4)
 Art 423. Nineteenth Century European Art (4)
 Art 424. Modern European Art (4)
 Art 459. Contemporary Art Theory and Criticism (4)
 Art 510. Colloquium in Art (4)
2. *Thirty units of studio courses in a single area of concentration chosen from one of the following groups (A,B,C,D,E or F): (Note: Check course descriptions to ascertain which courses may be repeated for credit.)*
 A. Art 304. Advanced Drawing and Life Drawing (5)
 Art 335. Painting I (5)
 Art 336. Advanced Painting (5)
 B. Art 340. Sculpture I (5)
 Art 341. Advanced Sculpture (5)
 C. Art 354. Ceramics I (5)
 Art 357. Advanced Ceramics (5)
 Art 375. Glass (5)
 D. Art 313. Printing Production (5)
 Art 360. Printmaking I (5)
 Art 361. Advanced Printmaking (5)
 E. Art 368. Woodworking and Furniture Design I (5)
 Art 369. Advanced Woodworking and Furniture Design (5)
 F. Art 390. Beginning Photography (5)
 Art 391. Intermediate Photography (5)
 Art 392. Advanced Photography (5)
 Art 393. Photographic Illustration and Design (5)
3. *Fifteen units of studio electives, in at least two different areas not in the area of concentration, chosen from:*
 Art 313. Printing Production (5)
 Art 335. Painting I (5)
 Art 336. Advanced Painting (5)
 Art 338. Agency and Studio Skills (5)

B.A. IN ART—PLAN II

Requirements (85 units)

This program is designed for the student with a strong professional interest in art who may wish to pursue graduate studies.

Requirements for the B.A. in Art—Plan II:

Lower-division requirements (27 units)

- Art 201. Foundation Studio in Art (5)
- Art 203. Foundation Studio in Art (5)
- Art 204. Drawing and Life Drawing (5)
- Art 210A. Western Art History: Prehistoric Times through the Middle Ages (4)
- Art 210B. Western Art History: Renaissance, Baroque and Rococo (4)
- Art 210C. Western Art History: Modern Art - 1750 to the Present (4)

Upper-division requirements (58 units)

- Eight units in the history of art chosen from:*

- Art 340. Sculpture I (5)
 Art 341. Advanced Sculpture (5)
 Art 342. Graphic Design I (5)
 Art 354. Ceramics I (5)
 Art 357. Advanced Ceramics (5)
 Art 360. Printmaking I (5)
 Art 361. Advanced Printmaking (5)
 Art 368. Woodworking and Furniture Design I (5)
 Art 369. Advanced Woodworking and Furniture Design (5)
 Art 375. Glass (5)
 Art 376. Jewelry and Metalsmithing (5)
 Art 380. Communications Design I (5)
 Art 381A. Advanced Communications Design (5)
 Art 390. Beginning Photography (5)
 Art 391. Intermediate Photography (5)
 Art 392. Advanced Photography (5)
 Art 393. Photographic Illustration and Design (5)
 Art 396. New Genres (5)
 4. Art 515. Senior Seminar: Art and Society (5)
- Art 360. Printmaking I (5)
 Art 361. Advanced Printmaking (5)
 Art 368. Woodworking and Furniture Design I (5)
 Art 369. Advanced Woodworking and Furniture Design (5)
 Art 375. Glass (5)
 Art 376. Jewelry and Metalsmithing (5)
 Art 390. Beginning Photography (5)
 Art 391. Intermediate Photography (5)
4. *Twenty-four units consisting of four units chosen from each of the following six groups (A, B, C, D, E and F) of art history courses:*
- A. Art 306. Greek and Roman Art (4)
 Art 308. Medieval Art (4)
 Art 316. Arts of the Ancient Near East and Egypt (4)
 B. Art 321. Renaissance Art (4)
 Art 327. Baroque and Rococo Art (4)
 C. Art 311. Art of the United States to the End of the 19th Century (4)
 Art 423. Nineteenth Century European Art (4)
 D. Art 328. Mexican Art (4)
 Art 329. Chicano Art (4)
 Art 413. Modern Art of the United States (4)
 Art 424. Modern European Art (4)
 E. Art 310. Eastern Art History (4)
 Art 317A. Topics in Far Eastern Art: India (4)
 Art 317B. Topics in Far Eastern Art: China (4)
 Art 317C. Topics in Far Eastern Art: Japan (4)
 F. Art 314. The Art of Indigenous Peoples (4)
 Art 323. Native North American Art (4)
 Art 324. Pre-Columbian Art (4)
5. Twelve units or three quarters of one foreign language or equivalent proficiency. (Students are strongly advised to learn French and German).

B.A. IN ART—PLAN III

Requirements (82 units)

This program is designed for the student with a strong professional interest in art history or museum work who may wish to pursue graduate studies.

Requirements for the B.A. in Art—Plan III:

Lower-division requirements (27 units)

1. Art 201. Foundation Studio in Art (5)
2. Art 203. Foundation Studio in Art (5)
3. Art 204. Drawing and Life Drawing (5)
4. Art 210A. Western Art History: Prehistoric Times through the Middle Ages (4)
5. Art 210B. Western Art History: Renaissance, Baroque and Rococo (4)
6. Art 210C. Western Art History: Modern Art 1750 to the Present (4)

Upper-division requirements (55 units)

1. Art 510. Colloquium in Art (4)
2. Art 515. Senior Seminar: Art and Society (5)
3. *Ten units of upper-division studio art courses chosen from:*
 - Art 313. Printing Production (5)
 - Art 335. Painting I (5)
 - Art 336. Advanced Painting (5)
 - Art 338. Agency and Studio Skills (5)
 - Art 340. Sculpture I (5)
 - Art 341. Advanced Sculpture (5)
 - Art 342. Graphic Design I (5)
 - Art 354. Ceramics I (5)
 - Art 357. Advanced Ceramics (5)

B.A. IN ART—PLAN IV

Requirements (89 units)

This program is designed for students with a strong professional interest in graphic design.

Requirements for the B.A. in Art—Plan IV:

Lower-division requirements (27 units)

1. Art 201. Foundation Studio in Art (5)
2. Art 203. Foundation Studio in Art (5)
3. Art 204. Drawing and Life Drawing (5)
4. Art 210A. Western Art History: Prehistoric Times through the Middle Ages (4)

5. Art 210B. Western Art History: Renaissance, Baroque and Rococo (4)
6. Art 210C. Western Art History: Modern Art - 1750 to the Present (4)

Upper-division requirements (62 units)

1. *Eight units in art history chosen from:*
 - Art 306. Greek and Roman Art (4)
 - Art 308. Medieval Art (4)
 - Art 310. Eastern Art History (4)
 - Art 311. Art of the United States to the End of the 19th Century (4)
 - Art 314. The Art of Indigenous Peoples (4)
 - Art 316. Arts of the Ancient Near East and Egypt (4)
 - Art 317A. Topics in Far Eastern Art: India (4)
 - Art 317B. Topics in Far Eastern Art: China (4)
 - Art 317C. Topics in Far Eastern Art: Japan (4)
 - Art 321. Renaissance Art (4)
 - Art 323. Native North American Art (4)
 - Art 324. Pre-Columbian Art (4)
 - Art 327. Baroque and Rococo Art (4)
 - Art 328. Mexican Art (4)
 - Art 329. Chicano Art (4)
 - Art 359. History of Photography (4)
2. Art 333. History of Graphic Design (4)
3. Art 338. Agency and Studio Skills (5)
4. Art 342. Graphic Design I (5)
5. Art 343. Graphic Design II (5)
6. Art 344. Graphic Design III (5)
7. Art 442. Graphic Design IV (5)
8. Art 443. Graphic Design V (5)
9. *Ten units of elective studio courses not in area of concentration.*
 - Art 313. Printing Production (5)
 - Art 335. Painting I (5)
 - Art 336. Advanced Painting (5)
 - Art 340. Sculpture I (5)
 - Art 341. Advanced Sculpture (5)
 - Art 354. Ceramics I (5)
 - Art 357. Advanced Ceramics (5)
 - Art 360. Printmaking I (5)
 - Art 361. Advanced Printmaking (5)
 - Art 368. Woodworking and Furniture Design I (5)
 - Art 369. Advanced Woodworking and Furniture Design (5)
 - Art 375. Glass (5)
 - Art 376. Jewelry and Metalsmithing (5)
 - Art 391. Intermediate Photography (5)
 - Art 392. Advanced Photography (5)
 - Art 393. Photographic Illustration and Design (5)
 - Art 396. New Genres (5)
10. Art 390. Beginning Photography (5)
11. Art 515. Senior Seminar: Art and Society (5)
12. Mktg 305. Marketing Principles (5)

TEACHING CREDENTIAL PROGRAM

Students wishing to be recommended for a single-subject teaching credential may follow Plan I, II or IV of the art major and must take the following courses either within this major or as electives:

1. Art 335. Painting I
 2. Art 338. Agency and Studio Skills
 3. Art 340. Sculpture I
 4. Art 354. Ceramics I
 5. Art 360. Printmaking I
 6. Art 368. Woodworking and Furniture Design I
 7. Art 390. Beginning Photography
 8. Art 499. Art Education: Methods and Materials (This course replaces Secondary Education 441. Secondary School Curriculum and Instruction II in the single subject credential requirements.)
-

MINOR IN ART HISTORY

Requirements (28 units)

Requirements for a minor in Art History:

Lower-division requirements (12 units)

1. Art 210A. Western Art History: Prehistoric Times through the Middle Ages (4)
2. Art 210B. Western Art History: Renaissance, Baroque and Rococo (4)
3. Art 210C. Western Art History: Modern Art 1750 to the Present (4)

Upper-division requirements (16 units)

1. *Sixteen units of additional courses in art history chosen from:*
 - Art 306. Greek and Roman Art (4)
 - Art 308. Medieval Art (4)
 - Art 310. Eastern Art History (4)
 - Art 311. Art of the United States to the End of the 19th Century (4)
 - Art 314. The Art of Indigenous Peoples (4)
 - Art 316. Arts of the Ancient Near East and Egypt (4)
 - Art 317A. Topics in Far Eastern Art: India (4)
 - Art 317B. Topics in Far Eastern Art: China (4)
 - Art 317C. Topics in Far Eastern Art: Japan (4)
 - Art 321. Renaissance Art (4)
 - Art 323. Native North American Art (4)
 - Art 324. Pre-Columbian Art (4)
 - Art 327. Baroque and Rococo Art (4)
 - Art 328. Mexican Art (4)
 - Art 329. Chicano Art (4)

- Art 333. History of Graphic Design (4)
 Art 359. History of Photography (4)
 Art 410. Studies in Art History (4)
 Art 413. Modern Art of the United States (4)
 Art 423. Nineteenth Century European Art (4)
 Art 424. Modern European Art (4)
 Art 459. Contemporary Art Theory and Criticism (4)
 Art 510. Colloquium in Art (4)

In most cases, students who have completed the minor in art history and three quarters of a foreign language or equivalent proficiency can easily complete the requirements of a humanities major as well.

MINOR IN STUDIO ART

Requirements (37 units)

Requirements for a minor in Studio Art:

Lower-division requirements (27 units)

1. Art 201. Foundation Studio in Art (5)
2. Art 203. Foundation Studio in Art (5)
3. Art 204. Drawing and Life Drawing (5)
4. Art 210A. Western Art History: Prehistoric Times through the Middle Ages (4)
5. Art 210B. Western Art History: Renaissance, Baroque and Rococo (4)
6. Art 210C. Western Art History: Modern Art - 1750 to the Present (4)

Upper-division requirements (10 units)

1. *Ten units of upper-division studio courses chosen from:*
 - Art 335. Painting I (5)
 - Art 336. Advanced Painting (5)
 - Art 340. Sculpture I (5)
 - Art 341. Advanced Sculpture (5)
 - Art 354. Ceramics I (5)
 - Art 357. Advanced Ceramics (5)
 - Art 360. Printmaking I (5)
 - Art 361. Advanced Printmaking (5)
 - Art 368. Woodworking and Furniture Design I (5)
 - Art 369. Advanced Woodworking and Furniture Design (5)
 - Art 375. Glass (5)
 - Art 376. Jewelry and Metalsmithing (5)
 - Art 380. Communications Design I (5)
 - Art 381A. Advanced Communications Design (5)
 - Art 390. Beginning Photography (5)
 - Art 392. Advanced Photography (5)

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Business Skills for the Artist

Certificate Requirements (32 units)

1. Acct 211. Principles of Accounting I (4)
2. Mgmt 442. Small Business Management (4)
3. Mktg 305. Marketing Principles (4)
4. Twenty units of upper-division studio art courses chosen in consultation with an advisor.

COURSE OFFERINGS IN ART (Art)

Lower Division

200. Studies in Art

Exploration of the form and content of art. Emphasis on understanding and appreciating painting, sculpture, architecture and other art media. May not be counted toward fulfilling requirements in the art major. (4 units)

201. Foundation Studio in Art

Organization of two-dimensional phenomena with an emphasis on the interaction of color. (5 units)

203. Foundation Studio in Art

The organization of three-dimensional phenomena. Materials fee required. (5 units)

204. Drawing and Life Drawing

Exploration in techniques of drawing for purposes of creative expression related to object and figure placement in space. (5 units)

210. Western Art History

Development of Western art and its historical context. May be repeated for credit as topics change.

- A. Prehistoric Times through the Middle Ages (4 units)
- B. Renaissance, Baroque and Rococo (4 units)
- C. Modern Art - 1750 to the Present (4 units)

220. Drafting and Mechanical Drawing for Artists

Fundamentals of drafting including schematic drawing of two- and three-dimensional objects, lettering, diagrammatical layouts, elevations, and perspective. Materials fee required. (5 units)

Upper Division

301. Topics in Studio Art for Non-Majors

Introduction to and experimentation in selected areas of art. Not open to art majors. May be repeated for credit as topics change. Materials fee required. (2.5 units)

302. Topics in Studio Art for Non-Majors

Introduction to and experimentation in selected areas of art. Not open to art majors. May be repeated for credit as topics change. (5 units)

304. Advanced Drawing and Life Drawing

Further exploration in techniques of drawing for purposes of creative expression. A maximum of 25 units may be applied toward the major. *Prerequisite: Art 204 or consent of instructor.* (5 units)

306. Greek and Roman Art

Architecture, sculpture, painting and decorative arts of ancient Greece and Rome. (4 units)

308. Medieval Art

Art and architecture of Europe from the 8th through the 13th centuries. (4 units)

310. Eastern Art History

Development of Eastern art and its historical context. (4 units)

311. Art of the United States to the End of the 19th Century

Development of American art from the Colonial period to c. 1900. Significant examples from the fields of architecture, sculpture, painting and the decorative arts. (4 units)

313. Printing Production

Foundation of printing production including procedures for operating a two-color offset press and related tools and equipment. Materials fee required. (5 units)

314. The Art of Indigenous Peoples

Art of the native cultures of Africa, the South Pacific and North America; post-conquest and contemporary folk art in Central and South America. (4 units)

316. Arts of the Ancient Near East and Egypt

History and development of the architecture, sculpture and decorative arts of the Ancient Near East and Egypt. (4 units)

317. Topics in Far Eastern Art

History and development of styles of Eastern art from pre-historic times.

- A. India (4 units)
- B. China (4 units)
- C. Japan (4 units)

321. Renaissance Art

Art and architecture of northern and southern Europe in the 15th and 16th centuries. (4 units)

323. Native North American Art

Art of American Indian and Eskimo peoples north of Mexico, from earliest prehistory to modern times. (Also offered as Anthropology 323. Students may not receive credit for both.) (4 units)

324. Pre-Columbian Art

Art and architecture of pre-Columbian cultures with an emphasis on Mexico and Peru. (Also offered as Anthropology 324. Students may not receive credit for both.) (4 units)

327. Baroque and Rococo Art

Art and architecture of 17th and 18th century Europe. (4 units)

328. Mexican Art

Art and architecture of Mexico from the Conquest to the present. (4 units)

329. Chicano Art

Art and culture of Mexican Americans. (4 units)

333. History of Graphic Design

Development of graphic communication from pictographs to contemporary design. (4 units)

335. Painting I

Pictorial functions of formal elements of picture-making such as line, plane, color and light, pattern and edge. Two hours lecture and six hours laboratory. *Prerequisites: Art 201 and 204.* (5 units)

336. Advanced Painting

Advanced work in painting. May be repeated for credit. Materials fee required. Two hours lecture and six hours laboratory. *Prerequisites: Art 201, 204, 335 or consent of instructor.* (5 units)

338. Agency and Studio Skills

Workshop in the fundamentals of paste-up and mechanical preparation and studio skills. Two hours lecture and six hours laboratory. Materials fee required. *Prerequisites: Art 201 and 203 or consent of instructor.* (5 units)

340. Sculpture I

Approaches to sculpture using a variety of materials, tools, processes and concepts. Materials fee required. Two hours lecture and six hours laboratory. *Prerequisite: Art 203 or consent of instructor.* (5 units)

341. Advanced Sculpture

Advanced work in sculpture. May be repeated for credit. Materials fee required. Two hours lecture and six hours laboratory. *Prerequisite: Art 340.* (5 units)

342. Graphic Design I

Fundamentals and principles of typographic design. An examination of the different elements of typography. Two hours lecture and six hours laboratory. Materials fee required. *Prerequisites: Art 201, 203, and 338 or consent of instructor.* (5 units)

343. Graphic Design H

Principles of photography, illustration, collage and typography applied to posters, games, book covers, magazines, point-of-purchase displays, and promotional materials. Two hours lecture and six hours laboratory. Materials fee required. *Prerequisite: Art 342 or consent of instructor.* (5 units)

344. Graphic Design III

Design principles as applied to regional and national, corporate and retail environments. Covers the interactions between business people and designers and the realities of planning, marketing, and strategic positioning of both company and product. Two hours

lecture and six hours laboratory. Materials fee required.
Prerequisite: Art 343 and consent of instructor. (5 units)

345. Gallery Management

Fine art gallery practices including installation, packing and crating, special event coordination and conduct. Preparation of publications and publicity, art handling and security. May be repeated for credit with consent of instructor. (2 units)

354. Ceramics I

Procedures of hand building, throwing, slip casting and glazing as practiced by the studio potter and the ceramic sculptor. Materials fee required. (5 units)

357. Advanced Ceramics

Advanced work in ceramics. May be repeated for credit. Materials fee required. Two hours lecture and six hours laboratory. *Prerequisites: Art 203 and 354 or consent of instructor.* (5 units)

359. History of Photography

Development of the technology and aesthetics of photography. (4 units)

360. Printmaking I

Creative research into studio techniques in relief, intaglio, callographic, planographic and stencil processes. Materials fee required. Two hours lecture and six hours laboratory. *Prerequisites: Art 201 and 204.* (5 units)

361. Advanced Printmaking

Advanced work in printmaking. May be repeated for credit. Materials fee required. Two hours lecture and six hours laboratory. *Prerequisite: Art 360.* (5 units)

365. Directed Studio Problems

Beginning to intermediate study and experimentation in a selected area of art. May be repeated for credit. Materials fee required. *Prerequisite: consent of instructor.* (Credit to be arranged: 1 to 2 units)

368. Woodworking and Furniture Design I

Explorations in the use of hand and power tools in woodworking. Materials fee required. (5 units)

369. Advanced Woodworking and Furniture Design

Advanced work in woodworking and furniture design. May be repeated for credit. Materials fee required. Two hours lecture and six hours laboratory. *Prerequisite: Art 368.* (5 units)

375. Glass

Techniques of blown, stained, molded, neon and flame glass used in the formation of functional and sculptural objects. May be repeated for credit. Materials fee required. Two hours lecture and six hours laboratory. *Prerequisite: Art 203 or consent of instructor.* (5 units)

376. Jewelry and Metalsmithing

Design and fabrication of jewelry and hollowware including the techniques of bending, forming, soldering and casting. May be repeated for credit. Materials fee required. Two hours lecture and six hours laboratory. *Prerequisite: Art 203 or consent of instructor.* (5 units)

380. Communications Design I

Design concepts as applied to visual communication, including graphic design and layout, packaging, corporate identity, symbology, display and environmental

graphics. Materials fee required. Two hours lecture and six hours laboratory. *Prerequisites: Art 201 and 203 or consent of instructor.* (5 units)

381. Advanced Communications Design

Advanced work in communications design. May be repeated for credit. Materials fee required. *Prerequisite: Art 380 or consent of instructor.*

- A. Two hours lecture and six hours laboratory. (5 units)
B. One hour lecture and three hours laboratory. (2.5 units)

386. Audio and Video Media

Introduction to the theories and techniques governing the use of video, photographic and audio-recording equipment in graphic production. (Also offered as Communication 386. Students may not receive credit for both.) (4 units)

390. Beginning Photography

Creative research in the study of photography, to include content, design, technique and individual problems. Two hours lecture and six hours laboratory. May not be taken for credit by students who have received credit for Art 383. Materials fee required. (5 units)

391. Intermediate Photography

Intermediate research in photography with an emphasis on process and technique, visual aesthetics and communication, and personal expression. Two hours lecture and six hours laboratory. Materials fee required. *Prerequisite: Art 390 (or 383) or consent of instructor.* (5 units)

392. Advanced Photography

Advanced work in photography. May be repeated for credit with a maximum of 20 units applied toward the major (units earned in Art 384 may be counted towards the 20 units). Two hours lecture and six hours laboratory. Materials fee required. *Prerequisites: Art 201, 390 (or 383), and 391 or consent of instructor.* (5 units)

393. Photographic Illustration and Design

Fundamentals of commercial photography and composition. Two hours lecture and six hours laboratory. Materials fee required. *Prerequisite: Art 390 (or 383).* (5 units)

395. Art in the Classroom

Providing art experiences through the use of varied art media in the elementary school. May not be counted toward fulfilling requirements in the art major. Materials fee required. (5 units)

396. New Genres

Creative research and experimentation in contemporary artistic expression including installation art, performance art, and video art. Two hours lecture and six hours laboratory. Materials fee required. *Prerequisites: Art 201 and 203 or consent of instructor.* (5 units)

410. Studies in Art History

Study in a selected period or topic in the history of art. May be repeated for credit as topics change. (4 units)

413. Modern Art of the United States

Art in America in the 20th century. (4 units)

423. Nineteenth Century European Art

Art of the 19th-century Europe; from neo-Classicism through post-Impressionism. (4 units)

424. Modern European Art

Twentieth-century art and architecture in Europe from 1900 to the present. (4 units)

442. Graphic Design IV

Advanced corporate identity, including logo and trademark design and related applications. Two hours lecture and six hours laboratory. Materials fee required. *Prerequisite: Art 344 or consent of instructor.* (5 units)

443. Graphic Design V

Design and portfolio workshop: design of graphics for television and motion pictures; workshop in resume preparation, development of job objectives, mock interviews, and the construction of a portfolio. Two hours lecture and six hours laboratory. Materials fee required. *Prerequisite: Art 442 or consent of instructor.* (5 units)

483. Studies in Studio Art

Study and experimentation in a selected area of art. May be repeated for credit as topics change. Materials fee required. *Prerequisites: Art 201, 203 and 204 or consent of instructor.* (5 units)

484. Studies in Studio Art

Study and experimentation in a selected area of art. May be repeated for credit as topics change. Materials fee required. *Prerequisites: Art 201, 203 and 204 or consent of instructor.* (2.5 units)

499. Art Education: Methods and Materials

The teaching methods, materials and curriculum of art programs K-12. Must be taken prior to student teaching in art. Two hours lecture and six hours laboratory. May not be taken for credit by students who have received credit for Humanities 499A. Materials fee required. *Prerequisite: open only to art majors of at least junior status.* (5 units)

510. Colloquium in Art

Inquiry into problems of art history, aesthetics and art criticism. May be repeated for credit. *Prerequisite: consent of instructor.* (4 units)

515. Senior Seminar: Art and Society

The theoretical and practical roles of art, artists and their audience through history to the present. Four hours lecture and two hours laboratory. *Prerequisite: open to senior art majors and minors or consent of instructor.* (5 units)

575. Internship

Supervised work in a private or public setting which provides professional experience in the field of art. May be repeated for a maximum of 10 units in the major. *Prerequisite: consent of instructor.* (Credit to be arranged: 1 to 5 units)

595. Independent Study

Studio and/or library research conducted under the direction of a faculty member. May be repeated for credit. Materials fee required. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

BILINGUAL / CROSS-CULTURAL STUDIES

The courses listed below are intended to be used by students who wish to complete simultaneously the Bachelor of Arts in Liberal Studies (see Page 212) and the requirements for the multiple subject credential with the bilingual/cross-cultural option (see Page 144). For further information concerning credential programs, contact the School of Education.

The university offers a certificate in bilingual/cross-cultural studies: Spanish/English. For further information, see Page 296.

- Anth 330. Cross-Cultural Child-Rearing Practices (4)
- Anth 354. Cultures of Mexico and Central America (4)
- Anth 356. Cultures of South America (4)
- Anth 460. Language and Culture (4)
- Art 328. Mexican Art (4)
- EEIB 536. Teaching in a Multicultural Society (4)
- FLan 320. Masterpieces of Literature (4)
- Hist 390. History of Mexico (4)
- Hist 391. Chicano History (4)
- Hist 470. Modern Latin America (4)
- IS 460. Aspects of Chicano Culture (4)
- Mus 351. Latin American Music (4)
- Span 101. College Spanish I (4)
- and
- Span 102. College Spanish II (4)
- Span 150. Intermediate Spanish (4)
- Span 312. Techniques for Professional Interpreting and Translating in Spanish (4)
- Span 314. Advanced Conversation (4)
- Span 316. Spanish for the Professions (4)
- Span 400. Masterpieces in Spanish and Spanish American Literature (4)
- Span 402. Advanced Composition (4)
- Span 440. Mexican Literature (4)
- Span 514. Seminar in Hispanic Language or Literature (4)

BIOLOGY

Department of Biology

*Biological Sciences Building, Room 217
880-5305*

Bachelor of Arts

Biology

Bachelor of Science

Biology

Teaching Credential Program

Single Subject

Minor

Biology

Master of Science

Biology

(Degree requirements can be found on Page 321.)

The major in biology emphasizes the relationship between structure and function in living systems and the concept that biological processes can be studied at different levels of organization. The program provides a balanced blend of traditional and modern biology, incorporating the important generalizations of traditional biology and the more recent advances essential to the successful biologist or medical practitioner of the future.

The excellent facilities and equipment of the department are readily available to all students enrolled in biology courses. Qualified seniors are encouraged to engage in research projects through the independent study program.

Many career opportunities are available to the student majoring in biology. The undergraduate program provides an excellent background for further work in medicine, dentistry, veterinary medicine, medical technology and graduate programs; and it also can serve for direct entry into public school teaching and a variety of positions in industrial, research and governmental organizations.

Field trips are a normal and required part of a number of courses.

Preprofessional students of medicine, dentistry or other science-based fields seeking a major in biology should refer to Page 65 of this catalog and consult with a departmental advisor.

B.A. IN BIOLOGY

Requirements (86 - 91 units)

Requirements for the B.A. in Biology:

1. Biol 200. Biology of the Cell (5)

2. Biol 201. Biology of Organisms (5)
3. Biol 202. Biology of Populations (5)
4. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
5. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
6. *A minimum of twelve units in organic chemistry, choose Group A or B below:*
Group A:
Chem 221. Organic Chemistry I (4)
Chem 222. Organic Chemistry II (4)
Chem 223. Organic Chemistry III (4)
Group B:
Chem 321. Principles of Organic Chemistry I (5)
Chem 322. Principles of Organic Chemistry II (5)
Chem 323. Principles of Organic Chemistry III (5)

Note: The requirement in organic chemistry may be met by the completion of one year of transferable organic chemistry course work from another institution of higher education.

7. *Four units chosen from:*
Math 120. Pre-Calculus Mathematics (4)
Math 211. Basic Concepts of Calculus (4)
8. *A minimum of thirteen units in physics, choose Group A or B below:*
Group A:
1. Phys 121. Basic Concepts of Physics I (5)
2. Phys 122. Basic Concepts of Physics II (4)
3. Phys 123. Basic Concepts of Physics III (4)
Group B:
1. Phys 221. General Physics I (5)
2. Phys 222. General Physics II (5)
3. Phys 223. General Physics III (5)
9. Upper-division elective course work in Biology totalling no less than 30 units in a minimum of six courses.

B.S. IN BIOLOGY

Requirements (114 - 119 units)

Requirements for the B.S. in Biology:

1. Biol 200. Biology of the Cell (5)
2. Biol 201. Biology of Organisms (5)
3. Biol 202. Biology of Populations (5)
4. Biol 300. Cell Physiology (5)
5. *Twenty-four units, six units chosen from each group (A, B, C and D) below:*
Group A:
Biol 400. Molecular Biology (6)
Biol 476. Immunobiology (6)

Group B:

- Biol 424. Comparative Animal Physiology (6)
 Biol 431. Comparative Plant Physiology (6)

Group C:

- Biol 421. Genetics (4)
 and
 Biol 422. Genetics Laboratory (2)
 Biol 440. Principles of Development (6)

Group D:

- Biol 450. Ecology (6)
 Biol 454. Microbial Ecology (6)
 Biol 455. Marine Biology and Oceanography (6)

6. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
 7. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)

8. *Five units chosen from:*

- Chem 245. Modern Quantitative Analysis (5)
 Chem 436. Biochemistry I (5)

9. *A minimum of twelve units in organic chemistry, choose Group A or B below:*

Group A:

- Chem 221. Organic Chemistry I (4)
 Chem 222. Organic Chemistry II (4)
 Chem 223. Organic Chemistry III (4)

Group B:

- Chem 321. Principles of Organic Chemistry I (5)
 Chem 322. Principles of Organic Chemistry II (5)
 Chem 323. Principles of Organic Chemistry III (5)

Note: The requirement in organic chemistry may be met by the completion of one year of transferable organic chemistry course work from another institution of higher education.

10. *Four units chosen from:*

- Math 120. Pre-Calculus Mathematics (4)
 Math 211. Basic Concepts of Calculus (4)

11. *A minimum of thirteen units in physics, choose Group A or B below:*

Group A:

1. Phys 121. Basic Concepts of Physics I (5)
 2. Phys 122. Basic Concepts of Physics II (4)
 3. Phys 123. Basic Concepts of Physics III (4)

Group B:

1. Phys 221. General Physics I (5)
 2. Phys 222. General Physics II (5)
 3. Phys 223. General Physics III (5)

12. A minimum of twenty-four units in upper-division elective course work in Biology.

TEACHING CREDENTIAL PROGRAM

Students wishing to be recommended for a single subject teaching credential in life science must demonstrate subject matter competence as assessed by the Biology Department faculty, and must have completed either a bachelor of arts or bachelor of science degree program in biology with a minimum of 15 units of lower-division core biology, and 30 units of upper-division biology to include one course from each category listed below:

A minimum of four units in plant biology from:

- Biol 319. Local Flora (6)
 Biol 353. Biology of Lower Plants (6)
 Biol 354. Biology of Higher Plants (6)
 Biol 360. Functional Anatomy of Plants (6)
 Biol 380. Medical and Economic Botany (4)

A minimum of four units in animal biology (zoology) from:

- Biol 331. Biology of Invertebrates (6)
 Biol 334. Medical and Economic Entomology (4)
 Biol 335. Entomology (6)
 Biol 342. Biology of the Chordates (6)
 Biol 371. Parasitology (6)

A minimum of four units in ecological studies from:

- Biol 346. Nature and Evolution of Animal Behavior (4)
 Biol 370. Symbiosis (4)
 Biol 450. Ecology (6)
 Biol 454. Microbial Ecology (6)
 Biol 455. Marine Biology and Oceanography (6)
 Biol 522. The Genetics and Ecology of Populations (4)

A minimum of four units in human biology - development from:

- Biol 314. Biology of Human Sexuality (4)
 Biol 315. Introduction to Human Embryology (4)
 Biol 316. Human Genetics (4)
 Biol 440. Principles of Development (6)

A minimum of five units in physiology and genetics from:

- Biol 300. Cell Physiology (5)
 Biol 400. Molecular Biology (6)
 Biol 421. Genetics (4)
 and
 Biol 422. Genetics Laboratory (2)
 Biol 424. Comparative Animal Physiology (6)
 Biol 431. Comparative Plant Physiology (6)

Six units in marine biology studies from:

- Biol 450. Ecology (6)

Biol 455. Marine Biology and Oceanography (6)

A course may not count in two categories and a minimum of three laboratory courses must be selected.

MINOR IN BIOLOGY

Requirements (56 units)

Requirements for a minor in Biology:

1. Biol 200. Biology of the Cell (5)
2. Biol 201. Biology of Organisms (5)
3. Biol 202. Biology of Populations (5)
4. Chem 206. Fundamentals of Chemistry II: Organic Chemistry (5)
5. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
6. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
7. *Four units chosen from:*
 - Math 120. Pre-Calculus Mathematics (4)
 - Math 211. Basic Concepts of Calculus (4)
8. *Five units in physics, choose A, B or C below:*
 - A. Phys 100. Physics in the Modern World (5)
 - B. Phys 121. Basic Concepts of Physics I (5)
 - C. Phys 221. General Physics I (5)
9. A minimum of fifteen upper-division units (3 courses) in biology, which must include at least one laboratory based course.

HONORS IN BIOLOGY

Candidacy for departmental honors in biology is voluntary. To be eligible a student must fulfill the following requirements:

1. Achieve a minimum GPA of 3.5 for all courses satisfying the requirements for the major (as defined above);
2. Take at least five courses in the major at this University;
3. Complete satisfactorily Biology 595. Independent Study;
4. Complete satisfactorily the departmental comprehensive examination.

Application for candidacy must be made at the beginning of the senior year. Approval of candidacy and of the project and project advisor rests with the department. The project advisor will have sole responsibility for acceptance of the completed project.

The department may grant honors to exceptional students who fail to meet the above requirements, but who have in the judgement of the department brought distinction upon themselves and the department in some other appropriate manner.

COURSE OFFERINGS IN BIOLOGY (Biol)

Lower Division

100. Topics in Biology

Provides a broad understanding of biology, our molecular-organismic-ecological heritage and humankind's place within the biosphere. Four hours lecture and three hours laboratory. (5 units)

200. Biology of the Cell

Provides basic understanding of the process of life and the universality of life processes at the molecular and cellular level. Four hours lecture and three hours laboratory. A strong background equivalent to one year each of high school biology and chemistry is highly recommended. (5 units)

201. Biology of Organisms

Provides basic understanding of the functional attributes of organisms and their diversity. Includes examination of their comparative and evolutionary relationships. Four hours lecture and three hours laboratory. *Prerequisite: Biology 200.* (5 units)

202. Biology of Populations

Provides basic understanding of genetic, ecological and evolutionary relationships of populations, communities and humankind in the biosphere. Four hours lecture and three hours laboratory. *Prerequisite: Biology 201.* (5 units)

216. Genetics and Society

Technological advances in human genetics and their impact on society. Biological and ethical perspectives of the application of genetic research. Two hours lecture. (2 units)

217. Biology of Sexually Transmitted Diseases

The pathogenesis, biology of the agent, treatment and diagnosis of the prominent sexually transmitted diseases. Impact of current biotechnology in relation to vaccine development, experimental treatments, and improved diagnostics and screening. Two hours lecture. (2 units)

220. Principles of Microbiology

Morphology, physiology and classification of bacteria, yeasts, molds, rickettsiae and viruses. Bacteriology of air, soil and dairy products; rudiments of infection and immunity. Laboratory training in culture preparation, sterilization, inoculation and identification. Four hours lecture and six hours laboratory. *Prerequisite: one lower-division biology course.* (6 units)

223. Human Physiology and Anatomy I

Comprehensive study of human form and function including living chemistry, cells, tissues, skeletal, muscular and nervous systems. Four hours lecture and three hours laboratory. *Prerequisite: one lower-division biology course.* (5 units)

224. Human Physiology and Anatomy II

Continuation of Biology 223 with coverage of special senses, digestive, respiratory, cardiovascular, urinary, endocrine and reproductive systems. Four hours lecture and three hours laboratory. *Prerequisite: Biology 223.* (5 units)

Upper Division

300. Cell Physiology

Study of cell properties, organization and activities; consideration of structure-function relationships of cellular membranes, the cell surface and cytoskeletal elements; metabolism of cell growth, maturation, specialized function and reproduction. Four hours lecture and three hours laboratory. *Prerequisites: Biology 200, 201 and 202.* Recommended: concurrent enrollment in organic chemistry (Chemistry 221 or 321). (5 units)

311. Human Physiology

Physiology of human organ systems at the cellular and molecular level. Four hours lecture. May not be taken for credit by students who have received credit for Biology 424. *Prerequisite: Biology 201 or 222.* Recommended: one year of chemistry. (4 units)

312. Microtechniques

Preparative and histochemical study of cells, tissues and the organism including whole mounts, squash, sectioning and staining methods. Two hours lecture and three hours laboratory. *Prerequisites: Biology 200, 201, 202 and Chemistry 216.* (3 units)

314. Biology of Human Sexuality

Biological aspects of human anatomy, physiology and behavior as related to sexual reproduction including discussion of fertility, pregnancy, childbirth and birth control; consideration also given to homosexuality, venereal disease, sexual intercourse and response. Four hours lecture. *Prerequisite: one lower-division biology course.* (4 units)

315. Introduction to Human Embryology

An introductory course in human development. Emphasis on normal developmental sequences from fertilization to birth and on hereditary and drug or chemical factors which can modify these normal sequences. Four hours lecture. *Prerequisite: one of the following: Biology 100, 201 or 202.* (4 units)

316. Human Genetics

Principles of heredity as they apply to humans. Four hours lecture. May not be taken for credit by students who have received credit for Biology 421 and 422, or 423. *Prerequisite: one lower-division biology course.* (4 units)

319. Local Flora

Identification of the flora and ecological communities of southern California with a consideration of taxonomic principles. Field collections, four hours lecture and six hours laboratory. *Prerequisite: one lower-division biology course.* (6 units)

320. Microorganisms

Study of microbial organisms: their cell structure and function, metabolism, genetics and ecology with an introduction to bacterial pathogens. Four hours of lecture and six hours laboratory. May not be taken for credit by students who have received credit for Biology 470. *Prerequisites: Biology 200, 201, 202 and 300.* (6 units)

321. Evolution

Darwin, views of evolution and their implications in various disciplines. Four hours lecture. *Prerequisite: one lower-division biology course.* (4 units)

331. Biology of the Invertebrates

The evolution and ecology of the invertebrate phyla with emphasis on major phylogenetic changes. Field collections, four hours lecture and six hours laboratory. *Prerequisite: one of the following: Biology 100, 201 or 202.* (6 units)

334. Medical and Economic Entomology

Survey of medically and economically important arthropods. Four hours lecture. May not be taken for credit by students who have received credit for Biology 335. *Prerequisites: Biology 200, 201 and 202, or consent of instructor.* (4 units)

335. Entomology

A study of the evolution, anatomy, classification and habits of insects and related arthropods. Field collections, four hours lecture and six hours laboratory. *Prerequisite: one of the following: Biology 100, 201 or 202.* (6 units)

340. Comparative Embryology

Descriptive survey of developmental patterns of tissue and organ formation to include studies of echinoderms, insects, and amphibian, avian, marsupial and mammalian vertebrate embryology. Three hours lecture and three hours laboratory. *Prerequisite: Biology 201 or a course in anatomy and physiology.* (4 units)

342. Biology of the Chordates

Structural, physiological and ecological changes in the evolution of the chordate groups with an emphasis on comparative vertebrate anatomy. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201 and 202.* (6 units)

345. Histology

Microscopic anatomy of vertebrates with special reference to humans; emphasis on developing an understanding of the structural organization of cells, tissues, and organs, together with functional relationships. Four hours of lecture and three hours of laboratory. *Prerequisites: Biology 200, 201, 202 and 300.* (5 units)

346. Nature and Evolution of Animal Behavior

Interrelationship between the ecology and behavior of animals, with particular reference to evolutionary aspects. Four hours lecture. *Prerequisite: one of the following: Biology 100, 201 or 202.* (4 units)

350. Extinction

Past and present global patterns of extinction, with a special emphasis on the ecology of endangered plant and animal species from western North America, Mexico and Baja California. Two hours lecture. *Prerequisite: Biology 202 or 250.* (2 units)

353. Biology of Lower Plants

Evolution, morphology and physiology of lower plants. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201 and 202.* (6 units)

354. Biology of Higher Plants

Comparative morphology of ferns, fern allies and seed plants, with a consideration of their phylogenetic relationships. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201 and 202.* (6 units)

360. Functional Anatomy of Plants

Tissues and tissue aggregates in vascular plants, stressing the functional attributes of structure, with laboratory study of living and preserved plant material and prepared

slides. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201 and 202.* (6 units)

370. Symbiosis

The nature and principles of biological interactions with a survey of various types of relationships such as commensalism, mutualism, parasitism and competition. Four hours lecture. *Prerequisites: Biology 200, 201 and 202.* (4 units)

371. Parasitology

Study of the nature and principles of parasitism with a survey of various groups of animal parasites. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201 and 202.* (6 units)

374. Hematology

Basic principles and current laboratory procedures used in the study of blood. Morphological and physiological characteristics of normal and abnormal blood tissues. Basic laboratory procedures in the study of blood. Four hours lecture and three hours laboratory. *Prerequisites: Biology 200, 201 and 202.* (5 units)

376. Endocrinology

Endocrine systems with emphasis on mechanisms for regulating the biosynthesis, secretion, transport and actions of hormones. Four hours lecture. *Prerequisites: Biology 200, 201, 202 and 300.* Recommended: background in general organic chemistry and vertebrate physiology. (4 units)

380. Medical and Economic Botany

Survey of medically and economically important plant species and families. Includes plants harmful and beneficial to humans, with emphasis on vascular species. Four hours lecture. *Prerequisites: Biology 200, 201 and 202.* (4 units)

396. Directed Study

Reading and library research in an area of biology conducted under the direction of a faculty member in the department of biology. No more than two units may be applied toward a biology elective for graduation. *Prerequisites: consent of instructor and departmental approval of a written proposal submitted on a standard application form filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 2 units)

400. Molecular Biology

A basic course in molecular biology with emphasis on informational macromolecules and how they direct molecular processes in both eukaryotic and prokaryotic cells. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201, 202, 300 and Chemistry 223 or 323.* (6 units)

402. Genetic Engineering

A basic course on recombinant DNA technology, concentrating on major DNA manipulation methods, use of vectors, genetic probes, construction of libraries, transgenic animals, plant genetic engineering and ethical and safety considerations. Lecture only. *Prerequisites: Biology 300 and Chemistry 223 or 323.* Recommended: Biology 400. (4 units)

421. Genetics

Principles of classical and modern genetics including an introduction to population genetics. May not be taken for credit by students who have received credit for Biology

423. Four hours lecture. Concurrent enrollment in Biology 422 is recommended. *Prerequisites: Biology 200, 201, 202 and 300.* (4 units)

422. Genetics Laboratory

Laboratory experiments with *Drosophila melanogaster* to demonstrate Mendelian principles of inheritance, linkage mapping and determination of linkage groups to which a gene belongs. May not be taken for credit by students who have received credit for Biology 423. Six hours laboratory. *Prerequisite or corequisite: completion of or concurrent enrollment in Biology 421 or an equivalent course or completion of Biology 316.* (2 units)

424. Comparative Animal Physiology

A comparative analysis of the physiological mechanisms and processes of organisms with emphasis on trends of evolutionary specialization. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201, 202, 300 and Chemistry 223 or 323.* Recommended: Biology 331 or 342. (6 units)

428. Concepts of Molecular Genetics

Chemical nature of genes, their replication and mode of action at the molecular level. Transfer and expression of genetic information; interaction and hybridization of genes, molecular mutagens and molecular evolution. Four hours lecture. *Prerequisites: Biology 400; or Biology 421 and 422, or 423 and Chemistry 223 or 323.* (4 units)

431. Comparative Plant Physiology

Analysis of physiological activity at the various levels of cells, tissues, organs and organisms. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201, 202, 300 and Chemistry 223 or 323.* Recommended: Biology 360. (6 units)

440. Principles of Development

Comparative analysis of patterns and processes of development of organisms, with emphasis on the role of genetic and biochemical mechanisms. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201, 202, 300 and Chemistry 223 or 323.* (6 units)

450. Ecology

Analysis of the interrelationships of organisms and their physical and biotic environment with a consideration of the role of the environment in natural selection. Four hours lecture and six hours laboratory/field studies. *Prerequisites: Biology 200, 201, 202 and a field course in biology.* (6 units)

454. Microbial Ecology

Principles of ecology focusing on microorganism niche requirements in marine environments, freshwater ecosystems and in soil. Four hours lecture and six hours laboratory/field work. *Prerequisites: Biology 200, 201, 202 and 300.* (6 units)

455. Marine Biology and Oceanography

Environment, diversity and ecology of marine fauna and flora, and consideration of physical oceanography. Four hours lecture and six hours laboratory/field studies. *Prerequisites: Biology 200, 201, 202 and a field course in biology.* (6 units)

460. Biogeography

Investigation of plants and animals according to their environmental and spatial relationships. Biogeographic theory and regions will be examined; agents of biotic distribution and human influence will be noted. Four

hours lecture. (Also offered as Geography 460. Students may not receive credit for both.) *Prerequisites: upper-division standing, Biology 201 or 202 and Geology 101 or Geography 103; or consent of instructor.* (4 units)

464. Plant Taxonomy

Taxonomic characteristics of vascular seed plants, with laboratory and field investigation of illustrative living and preserved plant material. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201 and 202.* Recommended: Biology 354. (6 units)

471. Mycology

Morphology and classification of fungi with emphasis on fungal physiology, genetics, pathogenesis and reproduction: brief introduction to industrial mycology. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201, 202, 300 and 320.* (6 units)

472. Virology

Examination of the structure, genetics and modes of replication of viruses, viroids and other related sub-cellular entities; their implications in medicine and agriculture, and their use in scientific research. Four hours lecture. *Prerequisites: Biology 200, 201, 202, 300 and 320.* (4 units)

476. Immunobiology

Foundations of immunology and current advances in the study of the immunological response. Laboratory examination of immunological assays applied in both research and clinical diagnostics. Four hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201, 202, 300 and Chemistry 223 or 323.* (6 units)

479. Medical Bacteriology

Study of bacterial pathogens with emphasis on mechanisms of pathogenicity, diagnosis, chemotherapy and host interaction. Four hours lecture and six hours laboratory. *Prerequisite: Biology 320.* (6 units)

480. Introduction to Neurobiology

Introduction to neurobiology. Study on a cellular level of how neurons function in terms of structure, physiology and pharmacology. Mechanisms of intercellular communication, perception of sensory information, and development and aging of the nervous system will be examined. A laboratory will allow direct examination of structure and physiology of nerve and muscle cells. Four hours of lecture and three hours of laboratory. *Prerequisites: Biology 200, 201, 202.* Recommended: Biology 300. (5 units)

490. Special Topics

Group study of a selected topic, the title to be specified in advance. May be repeated for credit as topics change. *Prerequisite: 15 units of upper-division biology course work.*

- A. (1 unit)
- B. (2 units)
- C. (3 units)

491. Special Laboratory Topics

Group laboratory study of a selected topic, the title to be specified in advance. May be repeated for credit as topics change. *Prerequisite: 15 units of upper-division biology course work.*

- A. (1 unit)
- B. (2 units)
- C. (3 units)

522. The Genetics and Ecology of Populations

Genetic and ecological mechanisms influencing the development, maintenance and evolution of populations. Four hours lecture. *Prerequisites: Biology 421 and 422, or 423.* (4 units)

553. Physical and Chemical Limnology

Physical and chemical characteristics of lakes and streams as related to activities of the natural biota, environmental factors and the geological substratum. Laboratory work primarily related to the standard chemical analysis of natural waters and studies of various physical parameters. Two hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201, 202, 450 and Chemistry 217 or 245.* Recommended: a field course in geology. (4 units)

554. Biology of Aquatic Populations

Dynamics of aquatic populations, with consideration of the influence of environmental factors on their activities. Laboratory dealing with construction of quantitative models applicable to the study of aquatic populations. Two hours lecture and three hours laboratory. *Prerequisite: Biology 450.* Recommended: courses in aquatic plant biology, invertebrate biology and vertebrate biology. (3 units)

575. Internship in Biology

Supervised work and study in work situations involving biological research and technical skills. May be applied only once toward degree electives in biology programs. May be repeated twice for free elective credit. Graded credit/no credit. *Prerequisite: department approval in the quarter prior to registration.* (2 units)

590. Senior Seminar

Survey of current literature, methods and ethics of scientific inquiry. Maybe repeated once as topics change. *Prerequisites: Biology 200, 201, 202 and a minimum of 15 upper-division biology courses supportive of the topic area and senior standing.*

- A. Molecular (2 units)
- B. Biosystematics (2 units)
- C. Cellular (2 units)
- D. Physiology (2 units)
- E. Ecology (2 units)
- F. Animal use (2 units)
- G. Genetics (2 units)
- H. Evolution (2 units)
- I. Microbiology (2 units)
- J. Zoology (2 units)
- K. Botany (2 units)

595. Independent Study

Laboratory and/or library research in selected areas in biology conducted under the direction of a faculty member. A total of six units in Biology 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and department approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* Consent must be obtained no later than the advisement period preceding the quarter of enrollment. All students will be required to attend the Biology Department colloquium called by the department chair each quarter until their projects are completed. (Credit to be arranged: 1 to 6 units)

CHEMISTRY

Accredited by the American Chemical Society

Department of Chemistry

*Physical Sciences Building, Room 319
880-5318*

Bachelor of Arts

Chemistry

Bachelor of Science

Chemistry - ACS Certified Option

Chemistry - Biochemistry Option

Teaching Credential Program

Chemistry

Minor

Chemistry

The Department of Chemistry provides:

1. Undergraduate training in chemistry for students planning professional careers in chemistry and allied professions such as medicine, dentistry, pharmacy, health sciences and veterinary medicine and for those contemplating graduate work for advanced degrees;
2. Appropriate courses for the teacher credential program;
3. Fundamental chemical science courses required by students majoring in related fields such as physics and biology;
4. An understanding of the achievements and contributions of chemistry as a science.

The Bachelor of Science in Chemistry (ACS Certified Option) satisfies the requirements for certification by the American Chemical Society.

Preprofessional students of medicine, dentistry or other science-based fields seeking a major in chemistry should refer to Page 65 of this catalog and consult with a departmental advisor.

Students interested in fields such as environmental science, environmental law, business, and clinical chemistry can pursue these by following the minimum requirements of the major and appropriate electives.

B.A. IN CHEMISTRY

Requirements (90-92 units)

Requirements for the B.A. in Chemistry:

Lower-division requirements (47-49 units)

1. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)

2. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
3. Chem 245. Modern Quantitative Analysis (5)
4. Math 211. Basic Concepts of Calculus (4)
5. Math 212. Calculus II (4)
6. Math 213. Calculus III (4)
7. *A minimum of thirteen units, choose Group A or B below:*

Group A:

1. Phys 121. Basic Concepts of Physics I (5)
2. Phys 122. Basic Concepts of Physics II (4)
3. Phys 123. Basic Concepts of Physics III (4)

Group B:

1. Phys 221. General Physics I (5)
 2. Phys 222. General Physics II (5)
 3. Phys 223. General Physics III (5)
 8. *Five units in biological science chosen from:*
- | | |
|-----------|----------------------------|
| Biol 100. | Topics in Biology (5) |
| Biol 200. | Biology of the Cell (5) |
| Biol 201. | Biology of Organisms (5) |
| Biol 202. | Biology of Populations (5) |

Upper-division requirements (39 units)

1. Chem 321. Principles of Organic Chemistry I (5)
2. Chem 322. Principles of Organic Chemistry II (5)
3. Chem 323. Principles of Organic Chemistry III (5)

Note: *Subject to departmental approval the organic chemistry requirement may be met with the following:*

- | | |
|-----------|--------------------------------|
| Chem 221. | Organic Chemistry I |
| Chem 222. | Organic Chemistry II |
| Chem 223. | Organic Chemistry III |
| Chem 421. | Intermediate Organic Chemistry |

4. Chem 455. Physical Chemistry I (6)
5. Chem 456. Physical Chemistry II (6)
6. Chem 475. Inorganic Chemistry (6)
7. Chem 590. Chemistry Seminar (1)
8. Five additional upper-division units in chemistry.

Foreign Language (4 units)

This requirement may be met by electing the foreign language option in the Foreign Language or Literature in Translation category in general education. Students may not choose French/German/Spanish 290 to meet this requirement.

B.S. IN CHEMISTRY - ACS CERTIFIED OPTION

Requirements (118 units)

Requirements for the B.S. in Chemistry-ACS Certified Option:

Lower-division requirements (53 units)

1. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
2. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
3. Chem 245. Modern Quantitative Analysis (5)
4. Math 211. Basic Concepts of Calculus (4)
5. Math 212. Calculus II (4)
6. Math 213. Calculus III (4)
7. Math 251. Multivariable Calculus I (4)
8. Phys 221. General Physics I (5)
9. Phys 222. General Physics II (5)
10. Phys 223. General Physics III (5)
11. *Five units in biological science chosen from:*
 - Biol 100. Topics in Biology (5)
 - Biol 200. Biology of the Cell (5)
 - Biol 201. Biology of Organisms (5)
 - Biol 202. Biology of Populations (5)

Upper-division requirements (53 units)

1. Chem 321. Principles of Organic Chemistry I (5)
2. Chem 322. Principles of Organic Chemistry II (5)
3. Chem 323. Principles of Organic Chemistry III (5)

Note: *Subject to departmental approval the organic chemistry requirement may be met with the following:*

- Chem 221. Organic Chemistry I
 - Chem 222. Organic Chemistry II
 - Chem 223. Organic Chemistry III
 - Chem 421. Intermediate Organic Chemistry
4. Chem 455. Physical Chemistry I (6)
 5. Chem 456. Physical Chemistry II (6)
 6. Chem 475. Inorganic Chemistry (6)
 7. Chem 545. Advanced Analytical Chemistry (6)
 8. Chem 576. Advanced Inorganic Chemistry (4)
 9. Chem 590. Chemistry Seminar (1)
 10. Nine upper-division units in chemistry. (**Note:** An upper-division course in mathematics or physics selected in consultation with the departmental advisor may be included.)

Applied mathematics, four units chosen from:

1. Math 252. Multivariable Calculus II (4)
2. Math 270. Elementary Differential Equations (4)
3. Math 331. Linear Algebra (4)

Computer Science, four units selected with department approval.

Foreign Language (4 units)

This requirement may be met by electing the foreign language option in the Foreign Language or Literature in Translation category in general education. Students may not choose French/German/Spanish 290 to meet this requirement.

Successful completion of a comprehensive examination covering the major field of study to be taken during the senior year.

B.S. IN CHEMISTRY - BIOCHEMISTRY OPTION

Requirements (116 to 118 units)

Requirements for the B.S. in Chemistry—Biochemistry Option:

Lower-division requirements (57 to 59 units)

1. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
2. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
3. Chem 245. Modern Quantitative Analysis (5)
4. Math 211. Basic Concepts of Calculus (4)
5. Math 212. Calculus II (4)
6. Math 213. Calculus III (4)
7. *A minimum of thirteen units, choose Group A or B below:*

Group A:

1. Phys 121. Basic Concepts of Physics I (5)
2. Phys 122. Basic Concepts of Physics II (4)
3. Phys 123. Basic Concepts of Physics III (4)

Group B:

1. Phys 221. General Physics I (5)
2. Phys 222. General Physics II (5)
3. Phys 223. General Physics III (5)
8. Biol 200. Biology of the Cell (5)
9. Biol 201. Biology of Organisms (5)
10. Biol 202. Biology of Populations (5)

Upper-division requirements (55 units)

1. Chem 321. Principles of Organic Chemistry I (5)
2. Chem 322. Principles of Organic Chemistry II (5)
3. Chem 323. Principles of Organic Chemistry III (5)

Note: *Subject to departmental approval the organic chemistry requirement may be met with the following:*

- Chem 221. Organic Chemistry I
- Chem 222. Organic Chemistry II

Chem 223. Organic Chemistry III
Chem 421. Intermediate Organic Chemistry

4. Chem 436. Biochemistry I (5)
5. Chem 437. Biochemistry II (5)
6. Chem 439. Separation Techniques in Biochemistry (2)
7. Chem 455. Physical Chemistry I (6)
8. Chem 456. Physical Chemistry II (6)
9. Chem 475. Inorganic Chemistry (6)
10. Chem 590. Chemistry Seminar (1)
11. *A minimum of nine units chosen from:*
 - Biol 300. Cell Physiology (5)
 - Biol 376. Endocrinology (4)
 - Biol 400. Molecular Biology (6)
 - Biol 428. Concepts of Molecular Genetics (4)
 - Biol 440. Principles of Development (6)
 - Biol 472. Virology (4)
 - Biol 476. Immunobiology (6)
12. Successful completion of a comprehensive examination covering the major field of study to be taken during the senior year.

Foreign Language (4 units)

This requirement may be met by electing the foreign language option in the Foreign Language or Literature in Translation category in general education. Students may not choose French/German/Spanish 290 to meet this requirement.

TEACHING CREDENTIAL PROGRAM

Students wishing to be recommended for a single subject teaching credential in physical science must either as part of the requirements for the Bachelor of Arts or Bachelor of Science major in chemistry or as electives in addition to the requirements for the degree take the following:

1. Geol 101. Physical Geology (5)
2. Geol 440. Geology of California (4)
or
- Geol 310. Intermediate Field Studies (2)
3. Phys 103. Descriptive Astronomy (5)
4. Phys 221. General Physics I (5)
5. Phys 222. General Physics II (5)
6. Phys 223. General Physics III (5)
7. *One of the following:*
 - NSci 300. Science and Technology (4)
 - NSci 310. The Environment and Human Survival (4)
 - NSci 312. Scientific Contributions to the Development of Civilization (4)

In addition, certain prerequisites and professional education courses are required. For information about admission to the teacher education program, the professional component, or the specific

requirements of the single subject waiver program, see Page 177 or contact the School of Education Credentials Office.

MINOR IN CHEMISTRY

Requirements (64 to 69 units)

Requirements for a minor in Chemistry:

1. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
2. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
3. Chem 245. Modern Quantitative Analysis (5)
4. *A minimum of twelve units, choose Group A or B below:*
 - Group A:*
 1. Chem 221. Organic Chemistry I (4)
 - Chem 222. Organic Chemistry II (4)
 - Chem 223. Organic Chemistry III (4)
 - Group B:*
 2. Chem 321. Principles of Organic Chemistry I (5)
 - Chem 322. Principles of Organic Chemistry II (5)
 - Chem 323. Principles of Organic Chemistry III (5)
5. Math 211. Basic Concepts of Calculus (4)
6. Math 212. Calculus II (4)
7. Math 213. Calculus III (4)
8. *A minimum of thirteen units, choose Group A or B below:*
 - Group A:*
 1. Phys 121. Basic Concepts of Physics I (5)
 2. Phys 122. Basic Concepts of Physics II (4)
 3. Phys 123. Basic Concepts of Physics III (4)
 - Group B:*
 1. Phys 221. General Physics I (5)
 2. Phys 222. General Physics II (5)
 3. Phys 223. General Physics III (5)
9. Ten additional upper-division units in chemistry.

DEPARTMENTAL HONORS

A graduating senior will be awarded departmental honors in chemistry after meeting the following requirements:

1. At least a 3.5 average in all chemistry course work taken at the university with a minimum being five chemistry courses;
2. At least a 3.0 average on the comprehensive examinations;

3. An "A" in Chemistry 595. Independent Study or another demonstration of ability to do independent work in chemistry.

COURSE OFFERINGS IN CHEMISTRY (Chem)

100. Chemistry in the Modern World

Examination of chemistry, its use by modern man and its value to contemporary society. Designed primarily for students who desire a broad overview of chemistry but have no high school background in the subject. Four hours lecture and three hours laboratory. *Prerequisite: satisfactory score on the entry level mathematics examination.* (5 units)

105. Chemicals in Our Environment

Examination of a current issue related to chemicals in our environment with focus on chemical principles and the interplay between chemical technology and society. Lecture only. (2 units)

205. Fundamentals of Chemistry I: General Chemistry

Basic introduction to the concepts of chemistry, including the composition of matter and physical and chemical changes. Designed primarily for the student with little or no chemistry background who plans to take additional chemistry or other science courses. Four hours lecture and three hours laboratory. *Prerequisites: one year of high school algebra or equivalent and satisfactory score on the entry level mathematics examination.* (5 units)

206. Fundamentals of Chemistry II: Organic Chemistry

Introduction to the chemistry of organic compounds. Four hours lecture and three hours laboratory. *Prerequisite: Chemistry 205.* (5 units)

207. Fundamentals of Chemistry III: Biochemistry

Introduction to the principles of modern biological chemistry and to organic compounds of biological interest. Four hours lecture and three hours laboratory. *Prerequisite: Chemistry 206.* (5 units)

215. General Chemistry I: Atomic Structure and Chemical Bonding

Stoichiometry, atomic and molecular structure, chemical bonding, states of matter and solutions. Designed primarily for the student majoring in the biological or physical sciences. Four hours lecture and six hours laboratory. *Prerequisites: one year of high school chemistry and three years of high school mathematics, or their equivalents; satisfactory score on the entry level mathematics examination.* (6 units)

216. General Chemistry II: Principles of Chemical Reactions

Chemical kinetics and equilibrium, thermodynamics, redox reactions and electrochemistry, and topics in inorganic, organic, biological and environmental chemistry. Four hours lecture and six hours laboratory. *Prerequisite: Chemistry 215.* (6 units)

221. Organic Chemistry I

Descriptive discussion of carbon compounds, including modern concepts of structure, reaction mechanisms and reactivity. Major emphasis is placed on organic compounds of biological interest. Three hours lecture and three hours laboratory. (For nonchemistry majors only.) *Prerequisite: Chemistry 216 or equivalent.* (4 units)

222. Organic Chemistry II

Continuation of Chemistry 221. Three hours lecture and three hours laboratory. *Prerequisite: Chemistry 221 or equivalent.* (4 units)

223. Organic Chemistry III

Continuation of Chemistry 222. Three hours lecture and three hours laboratory. *Prerequisite: Chemistry 222 or equivalent.* (4 units)

245. Modern Quantitative Analysis

Gravimetric and volumetric analysis, chemical equilibria, modern instrumental methods and radioanalytical techniques. Three hours lecture and six hours laboratory. May not be taken for credit by students who have received credit for Chemistry 217. *Prerequisite: Chemistry 216.* (5 units)

295. Special Projects in Chemistry

Individual investigation, research, study or survey of selected problems. *Prerequisite: consent of instructor.* (Credit to be arranged: 1 or 2 units)

Upper Division

321. Principles of Organic Chemistry I

Detailed study of organic molecules and their structures, reaction mechanisms, stereochemistry and synthesis. Three hours lecture and six hours of laboratory. *Prerequisite: Chemistry 216.* (5 units)

322. Principles of Organic Chemistry II

Continuation of Chemistry 321. Three hours lecture and six hours laboratory. *Prerequisite: Chemistry 321.* (5 units)

323. Principles of Organic Chemistry III

Continuation of Chemistry 322, including special topics in heterocyclic compounds, fats, carbohydrates, and amino acids and proteins. Three hours lecture and six hours laboratory. *Prerequisite: Chemistry 322.* (5 units)

392. Scientific Glassblowing

Principles and skills in the construction, modification and repair of scientific glass apparatus. *Prerequisite: consent of instructor.* (2 units)

421. Intermediate Organic Chemistry

Organic reaction mechanisms, quantitative identification of organic compounds, and instrumental organic analysis. Three hours lecture and six hours laboratory. *Prerequisite: Chemistry 223 or 323.* (5 units)

436. Biochemistry I

Chemistry of proteins, carbohydrates, lipids, and other classes of biomolecules; the kinetics, mechanism and structure of enzymes; the principles of bioenergetics; and the basic principles of metabolism. Four hours lecture and three hours laboratory. *Prerequisites: Chemistry 216, and 223 or 323.* (5 units)

437. Biochemistry II

Biochemical processes that yield and utilize energy: metabolism of carbohydrates, lipids, amino acids, purines and nucleic acid biosynthesis. Four hours lecture and three hours laboratory. *Prerequisite: Chemistry 436.* (5 units)

439. Separation Techniques in Biochemistry

Laboratory experience in techniques commonly employed in the separation of proteins and nucleic acids. Six hours laboratory. *Prerequisite: Chemistry 436.* (2 units)

455. Physical Chemistry I

Thermodynamics and the properties of solutions. Four hours lecture and six hours laboratory. *Prerequisites: Chemistry 216, Mathematics 202 or 213, and Physics 123 or 223.* Recommended: Mathematics 251. (6 units)

456. Physical Chemistry II

Phase equilibria, electrochemistry, transport properties, reaction rates and mechanisms, and quantum mechanics. Four hours lecture and six hours laboratory. *Prerequisite: Chemistry 455.* (6 units)

475. Inorganic Chemistry

Inorganic compounds and reactions. Special emphasis on group theory, structure, kinetics, and thermodynamic principles. Four hours lecture and six hours laboratory. *Prerequisite or corequisite: Chemistry 456.* (6 units)

500. Topics in Chemistry

Lecture course on an advanced chemistry topic such as: bio-physical chemistry, history of chemistry, literature of chemistry, natural products chemistry, polymer chemistry, synthetic organic chemistry, theoretical organic chemistry or quantum mechanics. May be repeated for credit as topics change. Lecture only. *Prerequisite: consent of instructor.* (2 units)

501. Advanced Laboratory Techniques

Advanced laboratory course on a subject such as organic or inorganic chemistry. May be repeated for credit as topics change. *Prerequisites: the basic course covering the subject of the Advanced Laboratory Techniques course and consent of instructor.* (2 units)

521. Advanced Organic Chemistry

Advanced topics in synthetic and mechanistic organic chemistry with emphasis on recent developments and techniques in organic chemistry. Lecture only. *Prerequisite: Chemistry 323 or 421.* (4 units)

545. Advanced Analytical Chemistry

Principles and techniques of modern instrumental analysis, including spectrophotometry, spectroscopy, chromatography, X-ray analysis, mass spectrometry and potentiometry. Four hours lecture and six hours laboratory. *Prerequisites: Chemistry 223 or 323, 245 and 456.* (6 units)

575. Internship in Chemistry

Supervised work and study in applied chemistry in an off-campus setting. Graded credit/no credit. *Prerequisites: course work appropriate to the specific internship, junior standing and consent of department.* (4 units)

576. Advanced Inorganic Chemistry

Current developments in inorganic chemistry, including coordination chemistry, non-metals and metalloids. Lecture only. *Prerequisite: Chemistry 475.* (4 units)

590. Chemistry Seminar

Topics of current chemical interest, presented by students, faculty and guest speakers. May be taken once for credit toward the major requirements for graduation. Lecture only. *Prerequisite: Chemistry 323 or 455.* (1 unit)

595. Independent Study

Laboratory and/or library research conducted under the direction of a faculty member. A total of six units in Chemistry 595 may be applied toward the major. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

COMMUNICATION

Department of Communication Studies

*Pfau Library Building, Room 201
880-5815*

Bachelor of Arts

Communication

Minor

Communication

Certificate Program

Communication Skills

Defined as "the creation, transmission and evaluation of messages," communication is a multifaceted discipline combining both academic and professional interests. Through courses in communication, students learn to describe, interpret and evaluate the communication processes as they occur within and among individuals, groups, organizations and societies. Students explore problems in diverse media (platform, conference, print, radio, television, film), settings (family, industry, professions, government) and contexts (racial, cultural, international).

The educational objectives established for the degree program in communication are the following terminal competencies: understand relationships between symbols and culture, discover information from its sources, describe characteristics of potential audiences, translate information into an audience's conceptual framework, transmit information/messages clearly in media appropriate to the audience, evaluate messages and their effects on audiences and appreciate the ethics of communication.

By the mid-1980s more than half of the country's gross national product was spent on information products and services. Communication is the means by which information is shared. The growth of communication studies reflects in part a growing technology permitting spoken language to move from the forum of Greece to the surface of the moon and around the planet in mere moments. Communication majors enter careers in business and industry, government and social services, education, media and the professions in positions of public relations, marketing, teaching, sales, media production, writing, personnel, on-air media, advertising and training. Men and women across the ages have testified how the study of communication aided their personal and professional lives, whether they be persuaders, conciliators, diplomats, teachers and scholars, or researchers.

In today's world of changing and integrated communications technology, the department's curricu-

lum reflects the belief that communication should be studied as a single discipline integrated into the liberal arts. Practicums and internships support but do not substitute for a sound theoretical base. Participants in department-sponsored journalism and radio laboratories are required to register in Communication 243. Communication Practicum; participants in intercollegiate-forensics activities are required to register in Communication 382. Intercollegiate Forensics. Internships are available on and off campus in the full range of communication professions.

B.A. IN COMMUNICATION

Requirements (73 units)

Requirements for the B.A. in Communication:

Lower-division requirements (12 units)

1. Comm 202. Mass Communication in America (4)
2. Comm 203. Introduction to Human Communication (4)
3. *Four units chosen from:*
 - CSci 121. Computer Technology and People (2)
 - CSci 123. Using Computer Software (2)
 - CSci 125. Programming in BASIC (2)

Note: *Students cannot receive credit for both:*

CSci 121. Computer Technology and People

and

CSci 127. Introduction to Computer Technology for Educators

OR FOR BOTH

CSci 123. Using Computer Software and

CSci 127. Introduction to Computer Technology for Educators

Upper-division requirements (37 units)

1. Comm 303. Introduction to Communication Research Methodologies (4)
2. Comm 304. Intercultural Communication (4)
3. Comm 305. Critical Approaches to Communication (4)
4. Comm 312. Persuasion (4)
5. Comm 501. Legal and Ethical Aspects of Communication (4)
6. Comm 581. Contemporary Theories of Rhetoric (4)
7. Comm 596. Senior-Level Integrative Seminar (4)
8. *Five units chosen from:*
 - Comm 591. Internship/Externship in Communication (2-5)
 - Comm 595. Independent Study (2-5)

9. *Four units chosen from:*

- Comm 302. Communication and Language Theories (4)
- Eng 311. The English Language (4)
- Phil 484. Philosophy of Language (4)

A minimum of twenty-four units from an elective cluster (1,2,3,4 or 5 below) to be chosen in consultation with an advisor:

1. Individualized Program Cluster

Majors desiring a generalist program should select a minimum of twenty-four units of communication courses by advisement.

2. Organizational Communication Cluster

Option 1 - Business Communication

- A. Comm 221. Small Group Communication (4)
- B. Comm 311. Business and Professional Communication (4)
- C. Comm 421. Organizational Communication (4)
- D. Comm 441. Interviewing (4)
- E. *Eight units chosen from:*
 - (1) Comm 341. Fundamentals of Public Relations (4)
 - or
 - PA 307. Public Relations in the Public Sector (4)
 - (2) Comm 344. Promotional Communication (4)
 - (3) Comm 403. Interpersonal Relations (4)
 - (4) Comm 422. Communication in Conflict (4)
 - (5) Comm 423. Organizational Communication Auditing (4)
 - (6) Comm 451. Diffusion of Innovations (4)

Option 2 - Training Communication

- A. Comm 311. Business and Professional Communication (4)
- B. Comm 331. Communication for Training Programs (4)
- C. Comm 431. Classroom Communication (4)
- D. *Twelve units chosen from:*
 - Comm 221. Small Group Communication (4)
 - Comm 344. Promotional Communication (4)
 - Comm 361. Communication Technologies (4)
 - Comm 403. Interpersonal Relations (4)
 - Comm 421. Organizational Communication (4)
 - Comm 422. Communication in Conflict (4)
 - Comm 441. Interviewing (4)

3. Professional Writing and Public Relations Cluster

- A. Comm 242. Writing for Print Media (4)
- B. Comm 344. Promotional Communication (4)

C. *Four units chosen from:*

- Comm 342. Newspaper Editing and Makeup (4)
- Comm 442. Editing and Design for Public Relations (4)

D. *Four units chosen from:*

- Comm 341. Fundamentals of Public Relations (4)
- Comm 343. Public Affairs Reporting (4)
- PA 307. Public Relations in the Public Sector (4)

E. *Eight units chosen from:*

- Comm 240. Writing for Broadcast Media (4)
- Comm 351. Topics in Professional Writing (4)
- Comm 421. Organizational Communication (4)
- Comm 422. Communication in Conflict (4)
- Comm 441. Interviewing (4)
- Comm 451. Diffusion of Innovations (4)
- Comm 471. Comparative Communication Systems (4)

4. Media Production Cluster

- A. Comm 240. Writing for Broadcast Media (4)
- B. Comm 386. Audio and Video Media (4)
- or
- Art 386. Audio and Video Media (4)
- C. Psyc 411. Psychology of Mass Media Communication (4)
- D. *Twelve units chosen from:*
 - Art 380. Communications Design I (5)
 - Art 381A. Advanced Communications Design (5)
 - Art 381B. Advanced Communications Design (2.5)
 - Art 390. Beginning Photography (5)
 - Comm 243B. Communication Practicum: Radio and Television (2)
 - Comm 361. Communication Technologies (4)
 - Comm 381. The Development of Motion Pictures (4)
 - Comm 443. Communication Performance (2)
 - Comm 451. Diffusion of Innovations (4)
 - Comm 471. Comparative Communication Systems (4)
 - Mus 416. Computer and Electronic Music (4)
 - Mus 427. Studio Recording Techniques (4)
 - Mus 519. Audio Production (2)
 - Soc 363. Sociology of Mass Communication (4)
 - TA 253. Voice for the Stage (2)

5. Hispanic Media Cluster

- A. Comm 471. Comparative Communication Systems (4)
- B. Comm 472. Hispanic Media (4)

C. *Sixteen units chosen from:*

- Span 302. Theory and Practice in Composition (4)
- Span 312. Techniques for Professional Interpreting and Translating in Spanish (4)
- Span 314. Advanced Conversation (4)
- Span 316. Spanish for the Professions (4)
- Span 415. Comparative Linguistics: Spanish/English (4)
- or other Communication courses by advisement.

A Single Subject Credential in English Cluster is pending approval by the Commission on Teacher Credentialing.

MINOR IN COMMUNICATION

Requirements (24 units)

Requirements for a minor in Communication:

Lower-division requirements (4 units)

1. *Four units chosen from:*
 - Comm 202. Mass Communication in America (4)
 - Comm 203. Introduction to Human Communication (4)

Upper-division requirements (20 units)

1. Comm 304. Intercultural Communication (4)
2. Comm 501. Legal and Ethical Aspects of Communication (4)
3. Twelve additional units in communication, at least eight of which must be upper-division.

DEPARTMENTAL HONORS

Students majoring in Communication are eligible to receive honors in Communication at graduation if the following conditions are met:

1. At least one-half of the course work required by the major completed at this University;
2. At least a 3.5 grade-point average in the major;
3. An overall grade-point average of 3.5 or better;
4. An independent study course that culminates in a research presentation to the department;
5. Recommendation for departmental honors by the Communication Studies faculty.

Students interested in this recognition must file a formal application with the department at least three quarters prior to graduation.

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Communication Skills

Certificate Requirements (32 units)

1. *Four units in public speaking chosen from:*
 - Comm 120. Oral Communication (4)
 - Comm 180. Critical Thinking Through Argumentation (4)
 - Comm 311. Business and Professional Communication (4)
2. *Four units in intercultural communication chosen from:*
 - Comm 304. Intercultural Communication (4)
 - Comm 411. Women and Communication (4)
3. *Four units in interpersonal communication chosen from:*
 - Comm 221. Small Group Communication (4)
 - Comm 331. Communication for Training Programs (4)
 - Comm 403. Interpersonal Relations (4)
 - Comm 441. Interviewing (4)
4. *Four units in public relations chosen from:*
 - Comm 341. Fundamentals of Public Relations (4)
 - PA 307. Public Relations in the Public Sector (4)
5. *Eight units in journalism chosen from:*
 - Comm 240. Writing for Broadcast Media (4)
 - Comm 242. Writing for Print Media (4)
 - Comm 342. Newspaper Editing and Makeup (4)
 - Comm 343. Public Affairs Reporting (4)
 - Comm 351. Topics in Professional Writing (4)
6. *Two courses for a minimum of four units in media chosen from:*
 - Art 380. Communications Design I (5)
 - Art 381A. Advanced Communications Design (5)
 - Art 381B. Advanced Communications Design (2.5)
 - Art 390. Beginning Photography (5)

- Comm 381. The Development of Motion Pictures (4)
- Comm 386. Audio and Video Media (4)
or
Art 386. Audio and Video Media (4)
- Comm 443. Communication Performance (2)
- Mus 416. Computer and Electronic Music (4)
- Mus 427. Studio Recording Techniques (4)
- Mus 519. Audio Production (2)
- TA 253. Voice for the Stage (2)
7. Comm 501. Legal and Ethical Aspects of Communication (4)

COURSE OFFERINGS IN COMMUNICATION (Comm)

Lower Division

120. Oral Communication

Introduction to effective speech communication with emphasis on informative and persuasive public speaking and presentation skills. (4 units)

180. Critical Thinking Through Argumentation

Principles of oral argumentation and forensics: evidence, methods of logical analysis, reasoned discourse demonstrated through argumentative speeches and debates. (4 units)

202. Mass Communication in America

Ideological, political, social and economic aspects of mainstream and specialized mass communication media in contemporary American society. (4 units)

203. Introduction to Human Communication

Introduction to the theoretical bases of human communication: human use and perception of symbols in the contexts of communicative interactions. (4 units)

221. Small Group Communication

Theories of communication applied to small group situations emphasizing decision-making processes. (4 units)

240. Writing for Broadcast Media

Introduction to news, feature story, and documentary writing skills and practices used in broadcast media. *Prerequisites: English 101 or equivalent and typing ability.* (4 units)

242. Writing for Print Media

Development of basic reporting and writing skills appropriate to newspaper and magazine publishing. An organizational perspective of print media included. *Prerequisites: English 101 or equivalent and typing ability.* (4 units)

243. Communication Practicum

Practical application of communication skills. A combination of Communication 243A and 243B may be repeated for credit for a total of not more than 6 units. Communication majors in the Individualized Program may repeat a combination of Communication 243A and 243B for a total of 10 units. Graded credit/no credit.

- A. Journalism, Photojournalism and Public Relations (2 units)
- B. Radio and Television (2 units)

281. Literature of Rhetorical Discourse

Introduction to classical and contemporary approaches to rhetorical analysis and criticism. Course focuses on understanding literary composition and oratory as public discourse. (Also offered as English 281. Students may not receive credit for both.) *Prerequisite: English 101 or equivalent.* (4 units)

Upper Division

302. Communication and Language Theories

Contemporary theories of language as they relate to the communication process, including semiotics and discourse theory. (4 units)

303. Introduction to Communication Research Methodologies

Study and application of basic historical, descriptive, critical and experimental research skills unique to communication. Data analysis. Includes ethical considerations of communication research. *Prerequisite: Mathematics 110 or 115.* (4 units)

304. Intercultural Communication

Description and analysis of cultural and gender factors in communication such as perception, value systems, language codes and nonverbal communication. Overcoming the communication problems that can result when members of different cultures communicate. (4 units)

305. Critical Approaches to Communication

Contemporary approaches to media and rhetorical criticism, with emphasis on television, film and public discourse. (4 units)

311. Business and Professional Communication

Presentation skills and techniques used in sales, business, professional and technical fields for the communication of information. Special emphasis on technological resources for corporate communication. *Prerequisite: Communication 120 or equivalent.* (4 units)

312. Persuasion

Study and application of rhetorical and social-psychological principles of persuasion and social influence. Preparation and criticism of persuasive discourse. (4 units)

331. Communication for Training Programs

Techniques and functions of training programs in professional and technical settings. (4 units)

341. Fundamentals of Public Relations

Management of formal communications for individuals and organizations intended to influence opinions of various audiences. Topics include history and uses of public relations; planning, executing and evaluating public relations campaigns; public policies relating to public relations; ethics and legal responsibilities. (4 units)

342. Newspaper Editing and Makeup

The responsibilities of the copy editor—writing, story editing, headline treatment and page design. Includes electronic copy processing. Ethical considerations discussed. *Prerequisite: Communication 242.* (4 units)

343. Public Affairs Reporting

Methods and procedures for reporting activities of both public and private sectors. Includes event-centered reporting as well as interpretive approaches. Ethical considerations discussed. *Prerequisite: Communication 242.* (4 units)

344. Promotional Communication

Examination of the role of public relations as a contemporary marketing tool used in the distribution of goods and services. (4 units)

351. Topics in Professional Writing

Writing for publication in major types of mass communication media. Topics may include education, health, law, science and technology and sports. May be repeated for credit as topics change. *Prerequisite: English 101.* (4 units)

361. Communication Technologies

Analysis of emerging communication technologies, their characteristics and impact on individuals and society. (4 units)

381. The Development of Motion Pictures

Survey of the historical background, commercial development and social influences of motion pictures. Course follows the medium from earliest origins through the rise and decline of the studio system and influences of television with emphasis on key directors and styles of film communication. (4 units)

382. Intercollegiate Forensics

Preparation for and participation in intercollegiate debate and/or individual events. May be repeated for credit for a total of not more than 6 units. Graded credit/no credit. (2 units)

386. Audio and Video Media

Introduction to the theories and techniques governing the use of video, photographic and audio-recording equipment in graphic production. (Also offered as Art 386. Students may not receive credit for both.) (4 units)

403. Interpersonal Relations

Focuses primarily on interpersonal relationships between managers and their supervisors, peers and subordinates, with particular emphasis on how interpersonal factors may affect policy development and implementation. (Also offered as Management 403. Students may not receive credit for both.) (4 units)

411. Women and Communication

A critical examination of the impact of communication on women in three major areas: verbal and nonverbal behaviors, women as public speakers and the portrayal of women in the media. May not be taken for credit by students who have received credit for Communication 583B. (4 units)

421. Organizational Communication

Study of current organizational communication theory and application to the management of communication within the organization. (4 units)

422. Communication in Conflict

Theories of communication for developing consensus through persuasion, problem-solving, conflict management, negotiation and mediation. Major emphasis is placed upon the means of achieving consensus among various societal groups. (4 units)

423. Organization Communication Auditing

Organizational communication theories applied in the performance of a communication audit on-site in a community organization. *Prerequisite: Communication 421.* (4 units)

431. Classroom Communication

Communication skills in instructional settings, including strategies to facilitate understanding and analysis of classroom behavioral models. *Prerequisite: Communication 120 or equivalent.* (4 units)

441. Interviewing

Interviewing in formal and informal settings. Understanding of employment, journalistic, informative and persuasive interviews. *Prerequisite: Communication 120 or equivalent.* (4 units)

442. Editing and Design for Public Relations

Identifying objectives, planning, writing, editing publications to reach internal and external constituencies in business, industry and government. *Prerequisite: Communication 341 or consent of instructor.* (4 units)

443. Communication Performance

Production course in communication activities resulting in a major public performance. (2 units)

451. Diffusion of Innovations

Techniques for the diffusion of new ideas, practices and technologies in various social and cultural contexts. (4 units)

471. Comparative Communication Systems

Examination of the major mass communication systems throughout the world in relation to their economic, political and cultural base. (4 units)

472. Hispanic Media

Characteristics and development of Hispanic media including analysis of messages and audiences. (4 units)

501. Legal and Ethical Aspects of Communication

The concept of freedom of speech and press. Exploration of problems and statutes in free speech that affect such areas as advocacy of illegal action, obscenity, libel and slander, and invasion of privacy. (4 units)

581. Contemporary Theories of Rhetoric

Study of 20th century conceptualizations of rhetoric, with an emphasis on contemporary public discourse. (4 units)

582. Topics in Communication

Special topics in communication taught by professionals in the field. May be repeated for credit as topics change. Graded credit/no credit. (2 units)

583. Topics in Communication

Special topics in communication taught by professionals in the field. May be repeated for credit as topics change. Graded credit/no credit. (4 units)

591. Internship/Externship in Communication

Supervised work and study of communication activities in private or public settings. A total of 10 units in Communication 591 may be applied toward graduation. Graded credit/no credit. *Prerequisites: consent of instructor, written consent from cooperating agency, departmental approval of a contract filed in advance of the quarter in which the course is to be taken, and junior or senior status.* (Credit to be arranged: 2 to 5 units)

595. Independent Study

Special topics involving library research, experimental or field research, or media production. A total of 10 units in Communication 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken, and junior or senior status.* (Credit to be arranged: 2 to 5 units)

596. Senior-Level Integrative Seminar

Examination of extended case studies in communication history and theory and the critical approaches to them. *Prerequisites: Communication 301, Communication 591 or 595 and senior standing.* May be taken concurrently with Communication 591 or 595 with department approval. (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

611. Briefings and Presentations

Preparing and presenting technical briefings and policy proposals from detailed studies for governmental and industrial decision makers as well as for the media. (4 units)

COMPUTER SCIENCE

Accredited by the Computer Science Accreditation Commission of the Computing Sciences Accreditation Board.

Department of Computer Science

*Pfau Library Building, Room 43
880-5326*

Bachelor of Science

Computer Science

Certificate Program

Computer Programming

Computer science is a relatively new discipline concerned with information, its representation, storage, structures, display and the processes which transform them. It deals with various kinds of information: numeric, alphabetic, pictorial, verbal, tactile, sensory and those requiring instrumentation for detection. This discipline is concerned with effective ways to store, retrieve and display information, algorithms to transform information, languages in which to express algorithms, hardware systems to interpret such languages, theoretical techniques for insuring the accuracy and minimizing the cost of these processes and philosophical foundations of such mechanical intelligence.

Access is available on campus to a wide variety of modern computing equipment, including large scale batch and timesharing systems, minicomputers and microcomputers.

This program in Computer Science is accredited by the Computer Science Accreditation Commission (CSAC) of the Computing Sciences Accreditation Board (CSAB) a specialized accrediting body recognized by the Council on Postsecondary Accreditation (COPA) and the U.S. Department of Education.

To stay ahead in today's increasingly competitive computer marketplace and to broaden each student's computer applications horizon, we encourage student affiliation with the California State University's International Programs. For further information, see Page 21.

B.S. IN COMPUTER SCIENCE

Requirements (119 units)

Requirements for the B.S. in Computer Science:

Lower-division requirements (55/56 units)

1. CSci 201. Computer Science I (4)
2. CSci 202. Computer Science II (4)
3. CSci 260. Machine Organization (4)
4. Math 211. Basic Concepts of Calculus (4)
5. Math 212. Calculus II (4)

6. Math 213. Calculus III (4)
or
Math 251. Multivariable Calculus I (4)
7. Math 262. Applied Statistics (4)
or
Math 465. Probability Theory (4)
8. Math 272. Discrete Mathematics (4)
9. Phys 221. General Physics I (5)
10. Phys 222. General Physics II (5)
11. Phys 223. General Physics III (5)
12. *Five units chosen from:*
 - Biol 100. Topics in Biology (5)
 - Biol 200. Biology of the Cell (5)
 - Biol 201. Biology of Organisms (5)
 - Biol 202. Biology of Populations (5)
 - HSci 120. Health and Society: An Ecological Approach (5)
13. *One additional science course (with lab component), not previously taken, from the following areas:*
 - Biology (5)
 - Chemistry (5)
 - Geological Sciences (5)
 - Health Science (5)

Upper-division requirements (38 units)

1. CSci 310. Digital Logic (5)
2. CSci 311. Contemporary Computer Architectures (5)
3. CSci 320. Programming Languages (4)
4. CSci 330. Data Structures (4)
5. CSci 331. Algorithm Analysis (4)
6. CSci 350. File Systems (4)
7. CSci 455. Software Engineering (4)
8. CSci 460. Operating Systems (4)
9. CSci 488. Ethics and the Computing Professional (2)
10. CSci 489. Senior Seminar (2)
11. Math 331. Linear Algebra (4)
or
Math 372. Combinatorics (4)

Electives (20/21 units)

Twenty or twenty-one units chosen from:

Four units chosen from:

- CSci 410. Input/Output Hardware Laboratory (5)
- CSci 430. Data Communications and Networks (4)
- CSci 480. Data Base Systems (4)

Four units chosen from:

- CSci 411. Artificial Intelligence (4)
- CSci 420. Computer Graphics (4)
- CSci 511. Expert Systems (4)
- CSci 540. System Simulation (4)

Four units chosen from:

- CSci 450. Systems Programming (4)
- CSci 470. Compilers (4)
- CSci 500. Automata Theory (4)

Eight units chosen from 400- and above level courses which may include the following:

- CSci 492. Topics in Computer Science (2)
- CSci 494. Topics in Computer Science (4)
- CSci 520. Advanced Computer Graphics (4)
- CSci 575. Internship in Computer Science (5)
- CSci 580. Advanced Data Base Systems (4)
- CSci 595. Independent Study (1-6)

Note: Students may not count more than five units combined in Computer Science 575 and 595.

DEPARTMENTAL HONORS

The department faculty will determine whether a student is to be awarded departmental honors based upon the following criteria:

1. Demonstration of independent work by achieving a grade of "C" or better in a four-unit Computer Science 595 Independent Study or Credit in Computer Science 575 Internship in Computer Science;
2. Attainment of a minimum overall GPA of 3.0 in all university courses attempted and a minimum GPA of 3.5 in all computer science courses required by the major (as defined above);
3. At least five computer science courses required by the major must be taken at this University.

Candidacy for honors in computer science is voluntary and must be applied for at the beginning of the senior year. Approval of honors rests solely with the department and other factors may weigh in their judgment.

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Computer Programming

Certificate Requirements (28 units)

1. CSci 201. Computer Science I (4)
2. CSci 202. Computer Science II (4)

3. *Eight units of computer languages chosen from:*
 - CSci 140. Introduction to FORTRAN Programming (4)
 - or
 - CSci 240. Scientific FORTRAN (4)
 - CSci 250. COBOL Programming (4)
 - CSci 251. Advanced COBOL Programming (4)
 - CSci 260. Machine Organization (4)
 - CSci 280. Low Level Language (4)
 - CSci 290. High Level Language (4)
4. Twelve units of upper-division course work to be chosen in consultation with a certificate advisor in the Department of Computer Science.

COURSE OFFERINGS IN COMPUTER SCIENCE (CSci)

Lower Division

121. Computer Technology and People

Computer technology: background, contemporary uses, implications and trends, impact on society and ethics. No previous computer background required. May not be taken for credit by students who have received credit for Computer Science 100, 120 or 127. (2 units)

123. Using Computer Software

Word processor, spreadsheet, and data base as an aid to personal productivity. One hour lecture and two hours laboratory. No previous computer background required. May not be taken for credit by students who have received credit for Computer Science 100 or 127. (2 units)

125. Programming in BASIC

Beginners All-purpose Symbolic Instruction Code (BASIC). One hour lecture and two hours laboratory. No previous computer background required. May not be taken for credit by students who have received credit for Computer Science 120. *Prerequisite: satisfactory score on the entry level mathematics examination.* (2 units)

126. Advanced BASIC Programming

Advanced features and application of BASIC. Students will write programs using advanced skills including peeks and pokes, simulations, matrices and file handling. *Prerequisite: Computer Science 125.* (2 units)

127. Introduction to Computer Technology for Educators

Operations, terminology and components. Implications for a democratic society, impacts on quality-of-life including economics, morality, legality and ethics. Hands-on use of computers for word processing, etc. Three hours lecture and two hours laboratory. No programming involved. No previous computer experience required. May not be taken for credit by students who have received credit for Computer Science 100, 121 and 123. (4 units)

140. Introduction to FORTRAN Programming

Introduction to FORTRAN language in which the student will analyze, formulate, code, punch or type and debug a series of programs related to everyday life. A knowledge of BASIC is strongly recommended. May not be taken for credit by students who have received credit for Computer Science 240. (4 units)

201. Computer Science I

Computer software design, implementation, methods and environments using a current high-level language. Survey of computers, applications and other areas of computer science. Three hours lecture and two hours activity laboratory. *Prerequisite: some prior computer programming experience, or Computer Science 121 and 125.* (4 units)

202. Computer Science II

Analysis of problems and the formulation, documentation and implementation of their solutions; an introduction to data structures with abstract data types; software engineering principles for both individual and group projects. Four hours lecture. (4 units)

240. Scientific FORTRAN

FORTRAN language with emphasis on computer solution of problems reducible to algebraic models and elementary numerical methods. *Prerequisites: Computer Science 202 and Mathematics 200 or 211.* (4 units)

250. COBOL Programming

COBOL language with emphasis on applications to data processing including file processing techniques. *Prerequisite: Computer Science 125, 140, or 202.* (4 units)

251. Advanced COBOL Programming

Applications of COBOL programming in information processing. Data storage devices and techniques and I/O operations for sequential, direct and indexed file organizations. Microcomputer and mainframe topics with respect to COBOL implementations. *Prerequisite: Computer Science 250.* (4 units)

260. Machine Organization

Typical components of von Neumann computer architectures; their organization, interrelated activities and control are emphasized and demonstrated using low-level languages. *Prerequisite: Computer Science 140, 202, or 240.* (4 units)

280. Low Level Language

Study of the assembly language for selected processors such as 8086/88, 68000, PDP 11, VAX 11, etc. May be repeated twice for credit as topics change. *Prerequisite: Computer Science 260.* (4 units)

290. High Level Language

Study of a selected high-level programming language, such as FORTH, ADA, APL or RPG. May be repeated for credit as topics change. *Prerequisite: Computer Science 202.* (4 units)

295. Computer Science Project

Production of documented computer programs under the direction of a faculty member. May be repeated twice for credit using different projects. *Prerequisites: a minimum overall GPA of 3.0, consent of instructor, and departmental approval of a written proposal of a project*

submitted on a standard application filed in advance of the quarter in which the course is to be taken. (Credit to be arranged: 1 to 4 units)

298. Application Software Topics

Applications software in areas such as word processing, data base, graphics, desk top publishing, planning and communications will be examined under specific operating systems. This is a how-to course and hands-on experience will be stressed. May be repeated for credit as topics change. No previous computing experience is required. One hour lecture and two hours laboratory. Graded credit/no credit. (2 units)

Upper Division**300. Introduction to Computer Hardware**

Basic hardware components and functional logic of computers. Sequential logic circuits: adders, encoders/decoders, counters, registers. Processor logic design and control: ALU, I/O buses, microprocessors. Applications examples. *Prerequisite: Computer Science 260.* (4 units)

310. Digital Logic

Boolean algebra, flip-flops, combinational and sequential circuits, arithmetic-logic units, memory devices, and I/O peripherals. Laboratory experiments include bread-board assembly of finite state machine circuits, registers and arithmetic-logic processors. Four hours lecture and three hours laboratory. *Prerequisites: Computer Science 260, Mathematics 200 or 211 and Physics 222 and 226.* (5 units)

311. Contemporary Computer Architectures

Control units and memory devices of von Neumann computer architectures; data flow and RISC architectures, including pipelining, networking, and parallel processing. Simple laboratory experiments treats PC interfacing and parallel data processing tasks. Four hours lecture and three hours laboratory. *Prerequisite: Computer Science 310.* (5 units)

320. Programming Languages

Topics include formal language specification, data types and their implementation, abstract mechanisms, control structures, run-time representations and storage management. Several high-level languages will be examined. *Prerequisites: Computer Science 202 and proficiency in another high-level language.* (4 units)

330. Data Structures

Abstract data structures including lists, stacks, queues and trees; their storage allocation and associated application algorithms. *Prerequisite: Computer Science 202.* (4 units)

331. Algorithm Analysis

Topics include design, implementation and analysis of algorithms for the sorting and searching tasks. Emphasis on measures of time and space complexity, graph theory and its applications. *Prerequisites: Computer Science 330, 350 and Mathematics 262, 465 or 340.* (4 units)

350. File Systems

Topics include file structures, file organization concepts and philosophies. *Prerequisite: Computer Science 330.* (4 units)

385. Data Base Design

Data base modeling, design, and user interfacing. User goals versus design goals, system efficiency analyses, query languages and high-level language interfaces. Problems of data base implementation and maintenance. Contemporary data base system examples. *Prerequisite: Computer Science 330.* (4 units)

398. Advanced Application Software

Advanced uses of application software will be examined, particularly in regards to their programming capabilities. This is a how-to course and hands-on experience will be stressed. May be repeated for credit as topics change. May not be counted toward fulfilling requirements in the computer science major. Graded credit/no credit. One hour lecture and two hours laboratory. *Prerequisite: Computer Science 298 with topic of same name, or equivalent experience.* (2 units)

399. Community Service Project

Credit for performing academically related tasks in such agencies as educational, governmental and social service institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of department.* (Credit to be arranged: 1 or 2 units)

410. Input/Output Hardware Laboratory

A project-oriented hardware class. Applications of some common LSI computer chips, interfacing between small computers and peripheral devices. Three hours lecture and six hours laboratory. *Prerequisite: Computer Science 311.* (5 units)

411. Artificial Intelligence

Problems and issues of artificial intelligence, current techniques and methods, and future prospects of machine intelligence. *Prerequisite: Computer Science 330.* (4 units)

420. Computer Graphics

Survey of computer graphics hardware. Topics include animation, two-dimensional and three-dimensional transformation, hidden surface removal algorithm, business charts and applications. *Prerequisites: Computer Science 330, Mathematics 200 or 211 and 202 or 251.* (4 units)

429. Introduction to Networks and Applications

Details of network implementations: switching and routing protocols, security and protocols for data sharing, multiprocessing and distributed processing, network interfacing with operating systems. Contemporary local and long-distance network examples. *Prerequisite: Computer Science 300.* (4 units)

430. Data Communications and Networks

Topics include baseband and broadband signals and modulation schemes. Error detecting and correcting codes, ISO protocol standard, packet switching and various local network schemes. *Prerequisites: Computer Science 260, 310 and 330.* (4 units)

450. Systems Programming

Concepts of, and implementation techniques for, systems software such as assemblers, compilers, linkers, loaders and operating systems. *Prerequisites: Computer Science 260, 320, 330 and either 300 or 310 and Mathematics 200 or 211.* (4 units)

455. Software Engineering

Advanced techniques and technology used to produce large software systems. Laboratory work with a software development environment. Three hours lecture and three hours laboratory. *Prerequisites: Computer Science 300 or 310, 320, 330, and either 350 or 385.* (4 units)

460. Operating Systems

An overview of operating systems. Principles of resource management and control. Multiprogramming and multiprocessor systems will be included. *Prerequisite: Computer Science 330.* (4 units)

470. Compilers

Interpreter and compiler structures. Topics include symbol tables, lexical and syntactic scanners, and object code generation. *Prerequisites: Computer Science 260, 320 and 330.* (4 units)

480. Data Base Systems

Basic concepts of data base and the different approaches to data base organization - relational, network and hierarchical. Discusses storage structures necessary for an implementation of a data base design and provides "hands-on" application on one or more commercial data base management systems. *Prerequisite: Computer Science 350.* (4 units)

488. Ethics and the Computing Professional

Professionalism, ethics, legal issues and the social impact and role of computer technology. *Prerequisite: senior standing.* (2 units)

489. Senior Seminar

A series of weekly seminars covering a wide range of computer science topics and formats including presentations from industry and university personnel, and students regarding projects and research work. Graded credit/no credit. May not be taken for credit by students who have received credit for Computer Science 405. *Prerequisite: senior standing.* (2 units)

492. Topics in Computer Science

Consideration of a selected area of computer science. May be repeated for credit as topics change. May be taken for credit by students who have received credit for Computer Science 490, however credit may not be received twice for the same topic. *Prerequisites: Computer Science 331 and consent of instructor.* (2 units)

494. Topics in Computer Science

An in-depth consideration of selected areas of computer science. May be repeated for credit as topics change. May be taken for credit by students who have received credit for Computer Science 490, however credit may not be received twice for the same topic. *Prerequisites: Computer Science 331 and consent of instructor.* (4 units)

500. Automata Theory

An introduction to automata theory. Topics include formal languages and grammars, Turing machines and computable functions. *Prerequisite: Computer Science 331 or consent of instructor.* (4 units)

511. Expert Systems

Expert systems components, problems and applications. Knowledge bases, inference "engines," and their integration within expert systems. Tools for building expert systems, system algorithms as related to hardware, implementation languages and examples of systems in operation. *Prerequisite: Computer Science 330.* (4 units)

520. Advanced Computer Graphics

Advanced computer graphics concepts, theory and implementation techniques. Topics include shading models, parametric curves and surfaces, hidden edge and surface removal, and anti-aliasing. *Prerequisites: Computer Science 420, Mathematics 331 and either Mathematics 213 or 251.* (4 units)

540. System Simulation

Theory and implementation of computerized modeling. Examples will include administrative, physical and biological systems. *Prerequisite: Computer Science 330 or consent of instructor.* (4 units)

575. Internship in Computer Science

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and department.* (5 units)

580. Advanced Data Base Systems

Advanced description: advanced study of components of general data base systems and other topics such as implementation methods, query language design, reliability, integrity, performance measures, distributed data base systems and database machines. *Prerequisite: Computer Science 480.* (4 units)

595. Independent Study

Laboratory and/or library research conducted under the direction of a faculty member. A total of five units in Computer Science 595 may be applied toward the computer science major. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

601. Directed Studies in Computer Science Education

Supervised study of advanced computer science topics relative to computer science education. May be repeated once for credit. *Prerequisites: admission to graduate school program, admission to graduate program in education, consent of instructor, department approval of written proposal for course project (filed in advance of term of enrollment).* (4 units)

CRIMINAL JUSTICE

Department of Criminal Justice

Faculty Office Building, Room 144
880-5506

Bachelor of Arts

Criminal Justice

Minor

Criminal Justice

Master of Arts

Criminal Justice

(Degree requirements can be found on Page 333.)

Certificate Program

Criminal Justice

A system of criminal justice must meet the needs of each individual citizen as well as the needs of complex social, economic and governmental institutions. The Bachelor of Arts degree program in criminal justice was developed with these needs in mind and is appropriate for both career-bound pre-service students and inservice personnel in law enforcement, probation, parole, corrections, social service agencies and related areas.

In addition, the program is designed to provide students with an appropriate academic background for continuing into graduate studies in criminal justice or pursuing graduate study in other areas such as law or criminology.

The criminal justice major is an interdisciplinary program with enough flexibility to permit students to pursue their own interests. For example, students wishing to emphasize law enforcement may select particularly appropriate courses within the major and are encouraged to minor in administration, political science or sociology. Students directed toward probation, parole or corrections work are advised to select courses accordingly and to take electives in psychology or sociology.

B.A. IN CRIMINAL JUSTICE

Requirements (78 units)

Requirements for the B.A. in Criminal Justice:

Lower-division requirements - prerequisites for upper-division courses (8 units)

1. CJus 101. Introduction to Criminal Justice I (4)

2. CJus 102. Introduction to Criminal Justice II (4)

Note: Students transferring from community colleges may substitute selected administration of justice and corrections courses for Criminal Justice 101, 102 and 103 and may be given lower-division credit toward the major for two additional courses.

Upper-division requirements (46 units)

1. Anth 335. Cross-Cultural Perspectives on Crime and Deviance (4)
2. CJus 301. Police and Private Security Administration (4)
or
CJus 302. Courts and Corrections Administration (4)
3. CJus 311. Research Methods in Criminal Justice (6)
4. CJus 351. Theories of Crime and Delinquency (4)
5. CJus 353. Juvenile Justice System (4)
6. *One of the following:*
CJus 357. Law Enforcement (4)
CJus 357A. Law Enforcement (Self-paced) (4)
Soc 357. Law Enforcement (4)
7. CJus 358. Punishment and Corrections (4)
or
Soc 358. Punishment and Corrections (4)
8. CJus 359. Law and Society (4)
or
Soc 359. Law and Society (4)
9. CJus 450. White Collar Crime (4)
or
Soc 450. White Collar Crime (4)
10. CJus 550. Criminal Justice Information Systems Management (4)
11. PSci 411. The Bill of Rights (4)

Twenty-four units of electives chosen from:

1. CJus 103. Critical Issues in Criminal Justice (4)
or
Soc 103. Critical Issues in Criminal Justice (4)
2. CJus 354. Victimology (4)
3. CJus 355. Organized Crime (4)
4. CJus 356. Crimes Without Victims (4)
5. CJus 360. Crime and Social Policy (4)
6. CJus 361. Comparative Criminal Justice Systems (4)
7. CJus 451. Women and Crime (4)
8. CJus 575. Internship in Criminal Justice (4)
9. CJus 590. Seminar in Criminal Justice (4)
10. CJus 595. Independent Study (1-4)
11. CJus 597. Senior Honors Project (4)

Note: With consent of department advisor, eight upper-division units in related fields may be substituted for eight units of the elective requirement.

crime (organized crime, political crime). (Also offered as Sociology 103. Students may not receive credit for both.) (4 units)

Upper Division

301. Police and Private Security Administration

Evaluation and analysis of criminal justice administration with a focus on the law enforcement and private security areas. Emphasis on organizational structure, function and behavioral processes. (4 units)

302. Courts and Corrections Administration

Evaluation and analysis of criminal justice administration with a focus on the courts and correctional areas. Emphasis on organizational structure, function and behavioral processes. (4 units)

311. Research Methods in Criminal Justice

Introduction to the use of scientific methodology and statistical techniques used to conduct basic and applied research in the criminal justice field. Computer applications and data processing emphasized. Four hours lecture and six hours of laboratory. *Prerequisite: Mathematics 110 or Mathematics 115.* (6 units)

351. Theories of Crime and Delinquency

Causes of crime and delinquency with emphasis on sociological factors. (4 units)

353. Juvenile Justice System

History and development of the juvenile justice system, with special emphasis on delinquency, the juvenile court and other agencies of juvenile justice system. (4 units)

354. Victimology

Victim role, criminal-victim relationships, and societal reaction to victimization, including crisis-intervention centers, court related victim/witness services, restitution and compensation. (4 units)

355. Organized Crime

History, development and effects of organized crime in the U.S., relationship of organized crime to political and economic structures, methods of combatting organized crime. (4 units)

356. Crimes Without Victims

Nature, extent and control of "crimes" such as gambling, prostitution, drug use, drunkenness, obscenity, and pornography. (4 units)

357. Law Enforcement

Sociological analysis of law enforcement systems and the police role, consideration of police discretion and differential implementation of the criminal law, problems affecting crime control and the interdependence of police and community. A self-paced version of this course (Criminal Justice 357A) is also available. (Also offered as Sociology 357. Students may not receive credit for more than one of the following courses: Criminal Justice 357, 357A, or Sociology 357.) (4 units)

358. Punishment and Corrections

History and theories of punishment and treatment in dealing with criminals, sociological analysis of institutional systems and community based systems, work release programs and pre-release guidance centers. (Also offered as Sociology 358. Students may not receive credit for both.) (4 units)

359. Law and Society

Social and cultural factors underlying the development, maintenance and change of law, legal structures and legal processes; comparative analysis of legal systems; and sociological consideration of the nature of justice. (Also offered as Sociology 359. Students may not receive credit for both.) (4 units)

360. Crime and Social Policy

Policies and programs for prevention and control of crime and delinquency, including evaluation of specific programs. (4 units)

361. Comparative Criminal Justice Systems

Description and analysis of selected international criminal justice systems. Emphasis on administrative functions, processes and outcomes. (4 units)

450. White Collar Crime

Study of America's most costly form of crime and deviance. History, causes, consequences, prevention and explanations of economic crime and abuse of power in the corporate and business world, the professions, trades, the unions and government. (Also offered as Sociology 450. Students may not receive credit for both.) (4 units)

451. Women and Crime

A critical study of women as offenders, victims and workers within the criminal justice system. (4 units)

550. Criminal Justice Information Systems Management

Analysis of existing criminal justice information systems and computer applications. Develop user applications to improve operations within and between criminal justice agencies. *Prerequisite: Criminal Justice 311 or equivalent.* (4 units)

575. Internship in Criminal Justice

Supervised work and study in private or public organizations. May be repeated once for credit. Open only to criminal justice majors. *Prerequisites: consent of instructor and department.* (4 units)

590. Seminar in Criminal Justice

Special topics in criminal justice. May be repeated for credit with consent of instructor as topics change. *Prerequisite: junior, senior or graduate standing.* (4 units)

595. Independent Study

In-depth research into special topics concerned with the criminal justice system utilizing readings, library and/or field research. A total of 8 units in Criminal Justice 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and department chair's approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 4 units)

597. Senior Honors Project

Original research in an area of criminal justice studies, culminating in a major research report receiving approval of the criminal justice faculty. Enrollment limited to students whose formal application for departmental honors is approved. (4 units)

MINOR IN CRIMINAL JUSTICE

Requirements (28 units)

Requirements for a minor in Criminal Justice:

1. CJus 101. Introduction to Criminal Justice I (4)
2. CJus 102. Introduction to Criminal Justice II (4)
3. CJus 301. Police and Private Security Administration (4)
or
CJus 302. Courts and Corrections Administration (4)
4. CJus 351. Theories of Crime and Delinquency (4)
5. *Twelve units chosen from:
One of the following:*
 - CJus 357. Law Enforcement (4)
 - CJus 357A. Law Enforcement (Self-paced) (4)
 - Soc 357. Law Enforcement (4)
 - CJus 358. Punishment and Corrections (4)
or
Soc 358. Punishment and Corrections (4)
 - CJus 359. Law and Society (4)
or
Soc 359. Law and Society (4)
 - CJus 450. White Collar Crime (4)
or
Soc 450. White Collar Crime (4)

HONORS IN THE MAJOR

Students majoring in criminal justice are eligible to receive honors in criminal justice at graduation if the following conditions are met:

1. At least one-half of the course work required by the major is completed at this University;
2. At least a 3.5 grade-point average in the major;
3. An overall undergraduate grade-point average of 3.0;
4. Completion of Criminal Justice 597. Senior Honors Project.

Students interested in receiving this recognition must initiate the process by filing a formal application with the chair of the Criminal Justice Department.

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an aca-

ademic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. See page 67 for further certificate requirements.

Certificate in Criminal Justice

Certificate requirements (32 units)

1. CJus 101. Introduction to Criminal Justice I (4)
2. CJus 102. Introduction to Criminal Justice II (4)
3. *Four units chosen from:*
 - CJus 103. Critical Issues in Criminal Justice (4)
 - CJus 353. Juvenile Justice System (4)
 - Soc 103. Critical Issues in Criminal Justice (4)
4. CJus 301. Police and Private Security Administration (4)
or
CJus 302. Courts and Corrections Administration (4)
5. CJus 351. Theories of Crime and Delinquency (4)
6. *Four units chosen from:*
 - CJus 357. Law Enforcement (4)
 - CJus 357A. Law Enforcement (Self-paced) (4)
 - CJus 358. Punishment and Corrections (4)
 - Soc 357. Law Enforcement (4)
 - Soc 358. Punishment and Corrections (4)
7. CJus 359. Law and Society (4)
or
Soc 359. Law and Society (4)
8. CJus 450. White Collar Crime (4)
or
Soc 450. White Collar Crime (4)

COURSE OFFERINGS IN CRIMINAL JUSTICE (CJus)

Lower Division

101. Introduction to Criminal Justice I

A descriptive overview of the adult and juvenile justice system, from the commission of crimes and offenses through sentencing and appeal procedures. Criminal justice standards and goals and the relationship of the social and behavioral sciences to criminal justice will be emphasized. (4 units)

102. Introduction to Criminal Justice II

Historical development of criminal law and its contemporary application. Theories of punishment and corrections will be reviewed as they relate to the criminal justice system. (4 units)

103. Critical Issues in Criminal Justice

Contemporary problem areas in the criminal justice system, including issues in evidence, arrest and detention, search and seizure, the ideology of crime control and criminal justice reform, and specific areas of

ECONOMICS

Department of Economics

Faculty Office Building, Room 144
880-5511

Bachelor of Arts

Economics

Minor

Economics

Whenever a choice must be made between alternatives—whether a personal decision to study math or play ball, or a governmental decision whether to spend a billion dollars on the space program or on schools—there are economic ramifications. Individuals, business, government and other social institutions must, if they are to use resources wisely, consciously consider economic factors in making decisions. As a social science, economics also studies the way in which social, political and cultural factors influence this decision-making process. The use of economic principles enables individuals and organizations to analyze problems in an orderly manner and to make sound choices about the economic desirability of a program or activity.

Training in economics, supplemented by course work in other disciplines, provides excellent preparation for particular careers in industry, government and many professions including management, law, education, public administration or consulting. Because economic problems are encountered everywhere and touch everyone's life, the study of economics also provides useful intellectual training for individuals who may be uncertain about their future plans.

B.A. IN ECONOMICS

Requirements (60 units)

Requirements for the B.A. in Economics:

Lower-division requirements (16 units)

1. Econ 200. Principles of Microeconomics (4)
2. Econ 202. Principles of Macroeconomics (4)
3. Math 110. College Algebra (4)
4. MSci 210. Applied Business Statistics (4)
or
Math 305. Statistics: Hypothesis Testing and Estimation (4)

Upper-division requirements (44 units)

1. Econ 300. Intermediate Macroeconomics (4)
2. Econ 302. Intermediate Microeconomics (4)
3. Econ 335. Economic Analysis with Microcomputers (4)

4. Econ 421. Economic History of the United States (4)
5. Econ 430. International Economics (4)
6. Econ 500. History of Economic Thought (4)
7. *Four units chosen from:*
 - Econ 322. Managerial Economics (4)
 - Econ 340. Advanced Economic Analysis with Microcomputers (4)
 - Econ 372. Business Cycles (4)
 - Econ 480. Introduction to Mathematical Economics (4)
 - Econ 490. Introduction to Econometrics (4)
8. *Four units chosen from:*
 - Econ 360. Economics of the Environment (4)
 - Econ 410. Money and Banking (4)
 - Econ 460. Labor Economics (4)
 - Econ 475. Public Finance (4)
9. *Four units chosen from:*
 - Econ 333. Women in the Economy (4)
 - Econ 352. The Economics of Poverty and Discrimination (4)
 - Econ 370. The American Economy (4)
 - Econ 420. Comparative Economic Systems (4)
 - Econ 445. Marxian Political Economy (4)
 - Econ 450. Economic Development (4)
10. Eight units of additional upper-division economics courses. With approval of a departmental advisor, eight units in related fields may be counted toward the upper-division course requirement in economics.

Note: In addition to the course requirements stated above, students considering graduate study in economics are urged to complete the following courses: Economics 490; Mathematics 211, 212, 251 and 331.

MINOR IN ECONOMICS

Requirements (32 units)

Requirements for a minor in Economics:

Lower-division requirements (8 units)

1. Econ 200. Principles of Microeconomics (4)
2. Econ 202. Principles of Macroeconomics (4)

Upper-division requirements (24 units)

1. Econ 430. International Economics (4)
2. Econ 500. History of Economic Thought (4)
3. Sixteen units of upper-division economics courses to be chosen in consultation with an advisor.

BUSINESS ECONOMICS CONCENTRATION

The School of Business and Public Administration offers a concentration in business economics within its Bachelor of Arts degree. Refer to Page 80 for details.

DEPARTMENTAL HONORS

Departmental honors will be awarded upon graduation to students majoring in economics who have:

1. Earned a 3.5 grade-point average in all economics courses attempted at this university;
2. Completed at least half of all work in economics at this university;
3. Been recommended for departmental honors by economics faculty.

Omicron Delta Epsilon

Students who have completed a minimum of 20 quarter units of economics coursework with a grade point average of at least 3.0 and who also have an overall grade point average of at least 3.0 may join the University's chapter of Omicron Delta Epsilon, the national honor society in economics. Additional information can be obtained from the Department of Economics.

COURSE OFFERINGS IN ECONOMICS (Econ)

Lower Division

104. Introduction to Economics

Economic models, ideas and approaches to social issues. Cannot be counted toward fulfillment of requirements in the economics major. (4 units)

200. Principles of Microeconomics

Introduction to the economic principles which govern production, exchange, the pricing of goods, services and resources and the distribution of incomes in competitive and noncompetitive markets. (4 units)

202. Principles of Macroeconomics

Introduction to the theory of national income determination with particular emphasis on employment and unemployment, price levels, monetary and fiscal policies, international economic issues and theories of economic growth. *Prerequisite: Economics 200 or consent of instructor.* (4 units)

Upper Division

300. Intermediate Macroeconomics

Analysis of the problems of measurement and determination of levels of national income, and investigation of macroeconomic policy issues including inflation and unemployment. *Prerequisites: Economics 200 and 202.* (4 units)

302. Intermediate Microeconomics

Detailed analysis of economic behavior of consumers and producers in competitive and noncompetitive markets, and of the criteria for achieving optimality in the allocation and use of resources. *Prerequisites: Economics 200 and 202.* (4 units)

305. Intensive Introductory Economics

An intensive introduction to micro- and macroeconomic concepts for graduate students. Not open to students who have received credit for Economics 200 and 202. *Prerequisite: graduate standing.* (4 units)

310. Economics in the Classroom

Economics method of analysis as it applies to contemporary problems. Designed for teachers of elementary children. May not be counted toward fulfilling requirements for the economics major. (4 units)

322. Managerial Economics

Application of microeconomic theory and analysis to business and administrative problems. *Prerequisites: Economics 200, 202 and 335.* (4 units)

333. Women in the Economy

Investigation of women's economic status, for example, differentials in income, incidence of poverty and unemployment rates; women's role in the economy; and an examination of proposals affecting women's status. (4 units)

335. Economic Analysis with Microcomputers

Formulation and construction of computer models using economics concepts and principles. Application of models to various economic phenomena, deriving solutions under alternative assumptions. *Prerequisites: Economics 200 and 202.* (4 units)

340. Advanced Economic Analysis with Microcomputers

Application of sophisticated computer software for purposes of economic analysis and modeling. *Prerequisite: Economics 335 or consent of instructor.* (4 units)

352. The Economics of Poverty and Discrimination

Investigation of the incidence of poverty among ethnic and racial minorities, women and the aged in the U.S.; analysis of discrimination and other causes of poverty among these groups; survey of methods for minimizing poverty in the United States. (4 units)

360. Economics of the Environment

Economic causes and implications of air and water pollution, urban congestion, natural resource depletion and population growth; examination of the economic impacts of alternative forms of environmental control and protection. (4 units)

370. The American Economy

Investigation of the structure and functions of the American economy and an analysis of the effect of contemporary institutions in shaping economic policy. (4 units)

372. Business Cycles

Causes and nature of business fluctuations. Application of macroeconomic theory and cyclical indicators to detect changes in the U.S. economy using the microcomputer as a forecasting tool. *Prerequisites: Economics 200, 202 and 335.* (4 units)

390. Selected Topics in Economics

Examination of selected topics of current interest in economics. May be repeated for credit as topics change. (4 units)

410. Money and Banking

Demand for money, creation and manipulation of the money supply, and the role of banking and other financial institutions in the United States in determining the level of employment, prices and international payments equilibrium. *Prerequisite: Economics 202.* (4 units)

420. Comparative Economic Systems

Comparison of theories and forms of organization of major contemporary economic systems such as those found in command, market-socialism and predominantly free-enterprise economies. *Prerequisite: Economics 202.* (4 units)

421. Economic History of the United States

Economic history of the United States from the founding of the colonies to the present. (Also offered as History 421. Students may not receive credit for both.) (4 units)

430. International Economics

Theory of economic growth through international specialization and exchange with emphasis on economic disturbances in international markets, mechanisms for adjustment, policies bearing on international trade and selected current issues. *Prerequisites: Economics 200 and 202.* (4 units)

445. Marxian Political Economy

Introduction to the dynamics of the capitalist economic system as viewed from Marx's theory of value, production and distribution. *Prerequisites: Economics 200 and 202 or consent of instructor.* (4 units)

450. Economic Development

Economic problems confronting developing countries; policies hypothesized to achieve desired rates of economic development in these areas. (4 units)

460. Labor Economics

Micro- and macroeconomic aspects of labor markets including the workings of labor markets in competitive and noncompetitive markets, structure and causes of unemployment, incomes policies, and selected institutional topics including the economics of U.S. labor movements. *Prerequisite: Economics 200.* (4 units)

475. Public Finance

Rationale for government actions in an economy which emphasizes private sector allocation; principles of taxation, theories of tax incidence, expenditure evaluation, government sources and uses of revenue, and

government budgeting. *Prerequisite: Economics 200 or consent of instructor.* (4 units)

480. Introduction to Mathematical Economics

Application of mathematical concepts and techniques to economic models of optimization by consumers and producers, to models of price determination and to the study of input-output techniques. *Prerequisites: Economics 200 and Mathematics 211.* (4 units)

490. Introduction to Econometrics

Various statistical methods of testing economic hypotheses. *Prerequisites: Economics 200, 202, Mathematics 110, and Management Science 210, or equivalent.* (4 units)

500. History of Economic Thought

Survey of the development of economic doctrines and analyses and concurrent intellectual and social history with emphasis on the ideas of landmark economists from Adam Smith to John Maynard Keynes. *Prerequisite: Economics 200.* (4 units)

575. Internship in Economics

Supervised work in public or private organizations emphasizing practical applications of economic concepts and relationships. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and departmental approval of a written proposal submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (4 units)

590. Seminar in Economics

Intensive study of some phase of economics. May be repeated for credit as subject matter changes and with consent of instructor. (4 units)

595. Independent Study

Investigation of special topics not covered by the department's curricular offerings. A total of 10 units in Economics 595 may be applied toward the major and graduation. *Prerequisites: A minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Proseminar in Economics

Survey of the concepts and ideas that economists study, how they approach the study of economic phenomena, and what methods they employ in their analysis. The seminar will include discussion of the relationships of the discipline to other social science disciplines and the unique contributions economics has made to knowledge in general and in the social sciences. *Prerequisite: consent of instructor.* (4 units)

630. International Economic Issues

Contemporary international economic issues of relevance in planning and implementing policy. (4 units)

EDUCATION

School of Education

Faculty Office Building, Room 182
880-5600

Basic Teaching Credential Programs

- Multiple Subject
- Multiple Subject (Intern Track)
- Multiple Subject-Bilingual/Cross-Cultural Emphasis (Spanish)
- Single Subject
- Single Subject (Intern Track)
- Designated Subjects

Specialist and Services Credential Programs

- Adapted Physical Education Specialist
- Administrative Services (Preliminary)
- Administrative Services (Professional)
- Bilingual/Cross-Cultural Specialist
- Pupil Personnel Services
- Reading Specialist
- Special Education Specialist: Learning Handicapped
- Special Education Specialist: Physically Handicapped
- Special Education Specialist: Severely Handicapped
- Supervision and Coordination of Designated Subjects Program
(Credential requirements can be found on Page 350.)

Master of Arts in Education

- Bilingual/Cross-Cultural Option
- Educational Counseling Option
- Elementary Education Option
- Environmental Education Option
- Reading Option
- Secondary Education Option
- Secondary Education Option with History, English or Physical Education Options
- Special Education Option
- Vocational Education Option
(Degree requirements can be found on Page 336.)

Master of Arts

- Educational Administration
(Degree requirements can be found on Page 367.)
- Rehabilitation Counseling
(Degree requirements can be found on Page 396.)

Certificate Programs

- Community College Counseling
- Education of the Gifted and Talented
- Educational Computing
- Educational Technology

- Environmental Education
- Middle Grade Education
- Reading for the Classroom Teacher
- Rehabilitation Counseling
- Remedial Education in the Elementary School
- School Business Management
- Study Strategy Instruction for Secondary Schools
(Certificate requirements can be found on Page 356.)

Specialist Certificate Program

- Resource Specialist in Special Education
(Specialist certificate requirements can be found on Page 358.)

Vocational Education

- Bachelor of Arts
(Degree requirements can be found on Page 308.)

The School of Education offers course work designed to prepare students for a variety of careers in education. At the present time, the University is approved to offer the following credentials through the Department of Teacher Education:

- A. Multiple subject teaching credential for teaching in a self-contained classroom (all grades),
- B. Multiple subject teaching credential (intern track) for teaching in a self-contained classroom (all grades),
- C. Multiple subject teaching credential with emphasis in bilingual/cross-cultural for teaching in a self-contained classroom (all grades),
- D. Single subject credential for teaching a single subject in a departmentalized school (all grades),
- E. Single subject credential (intern track) for teaching a single subject in a departmentalized school (all grades),
- F. Designated subjects teaching credential for technical, trade or vocational subjects or adult education. For information concerning the Bachelor of Vocational Education see Page 308.

In general, students electing to pursue an emphasis in elementary teaching should undertake one of the multiple subject credentials. Students wishing to follow an emphasis in secondary teaching should pursue the single subject credential.

Information on graduate programs in education can be found in the graduate studies section beginning on Page 336. These include the master of arts in education, specialist and services credential programs, certificate programs and specialist certificate programs.

The school offers a program leading to the Bachelor of Vocational Education degree. Further information about this degree is provided on Page 308.

BASIC TEACHING CREDENTIALS

MULTIPLE SUBJECT CREDENTIAL PROGRAM

Requirements (44 units)

Admission to the university must precede admission to the credential program. Special credential advisement meetings are held during the first week of each quarter to distribute applications, with times and places announced in advance.

Students may enroll in Elementary Education 300, Principles and Practices in Elementary School Teaching and 331, Growth and Development of the Young Child or Psychology 320, Psychology of Middle Childhood, without being admitted to the program. (**Note:** Elementary Education 300 has a prerequisite.)

Admission to the Program

One quarter in advance of the time students intend to enroll in Education 332, Elementary Education 340 and 345A, students must submit an application for entry into the basic credential program. (No applications are accepted in the summer quarter.) This application is due by Thursday of the sixth week of the quarter prior to enrolling in any of these courses. Students are particularly advised to complete the required California Basic Educational Skills Test (CBEST) and (if necessary) the General Knowledge Section of the National Teaching Examination Core Battery as early as possible in order to be able to provide verification of passing scores with their application for admission to the program.

Admission to the basic credential program is based on the following criteria:

1. Three written recommendations, at least two from faculty members in the student's major department;
 2. Meet with and obtain signature of assigned Elementary Education advisor on application.
 3. Verification of a negative tuberculin examination within the last 24 months;
 4. Audiovisual clearance from Audiovisual Services;
 5. Academic achievement;
 - A. Applicants must possess the following minimum grade-point averages:
 - (1) Liberal studies majors will be held to the 50th percentile (2.86 for graduates of California State University, San Bernardino) for their cumulative undergraduate GPA for the three academic years (1989-1992);
 - (2) Candidates with a major other than liberal studies will be held to the 50th percentile equivalent for the cumulative undergraduate GPA for that major or 2.6, whichever is higher, for the three academic years (1989-1992). For detailed information on the GPA requirement for majors and for graduates of other universities see an education advisor;
 - (3) Transfer candidates who complete 45 or more units as an undergraduate at California State University, San Bernardino will have their cumulative GPAs computed for admission with the same standards and on the basis of course work completed at this university only;
 - (4) 3.0 in professional education course work, with no course grade in this area lower than "B-."
 - B. Written verification of registration for or passage of the assessment of subject matter competence in liberal studies.
- No candidate may be recommended for the credential who has received a grade of lower than "C" (2.0) in any other course required for the credential, such as Health Science courses. In the case of a repeated class, only the highest grade the student has received will be considered for the purpose of this requirement.
6. One of the following:
 - A. Completion of 4/5 of the requirements for the liberal studies major as offered on this campus and verified in writing by the Liberal Studies Coordinator, or an approved diversified major on another campus,

OR

 - B. Written verification of registration for or passing score (GK660) on the General Knowledge Section of the National Teaching Examination Core Battery. (This option is required for those students who do not have a California approved liberal studies waiver program.)
 7. Submission of a certificate of clearance issued by the Commission on Teacher Credentialing or evidence of a credential or permit authorizing public school teaching in California;
 8. Completion of or concurrent enrollment in the upper-division writing requirement at the University or the equivalent graduation requirement at another accredited institution, or a score of 41 or better on the written portion of the CBEST. (CBEST exam does not meet the upper-division writing requirement for the Master of Arts degree.);
 9. Written verification of registration for or passing score on the California Basic Educational Skills Test.

10. Satisfactory completion of the following:

- EELB 300. Principles and Practices in Elementary School Teaching
 - EELB 331. Growth and Development of the Young Child
- or
- Psyc 320. Psychology of Middle Childhood
- with a GPA of 3.0 and no course grade lower than "B-."

11. Written statement of educational philosophy and goals completed in Elementary Education 300.

Admission to Student Teaching

Once admission to the program has been granted, students may enroll in:

- Educ 332. Psychological Foundations of Education (Previously Education 330)
- EELB 340. Elementary Curriculum and Methods I
- EELB 345A. Reading in the Elementary School: Multiple Subject

One quarter in advance of the time students intend to enroll in Elementary Education 341 and 410A (student teaching), students must submit an application for student teaching. (No applications are accepted in the summer quarter.) This application is due by Thursday of the fifth week of the quarter prior to enrolling in student teaching.

Admission to student teaching is based on the following criteria:

1. Interview by members of the Department of Elementary and Bilingual Education.
2. One of the following:
 - A. Completion of the requirement for the liberal studies major as offered at this campus and verified in writing by the liberal studies coordinator or an approved diversified major on another campus,

OR

 - B. Satisfactory completion of the General Knowledge Section (GK660) of the National Teacher Examination Core Battery.
3. Submission of evidence that the applicant has passed the California Basic Educational Skills Test (CBEST).
4. Satisfactory completion of the following:
 - Educ 332. Psychological Foundations of Education
 - EELB 340. Elementary Curriculum & Methods I
 - EELB 345A. Reading/Language Arts in the Elementary School: Multiple Subject
5. Demonstration of subject matter competence as assessed by the liberal studies faculty.
6. Verification of a negative tuberculin examination within the last 24 months.

7. Completion of the upper division writing requirement at the University, or the equivalent graduation requirement at another accredited institution, or a score of 41 or better on the written portion of the CBEST.

In addition, the following criteria are used: professional aptitude, personality and character, oral and written language usage, and many-sided interests.

All course work taken at another college, or more than seven years ago, is subject to approval by the chair of the Elementary and Bilingual Education Department. No more than 14 units of the credential program may be transferred. Student teaching is never transferable.

Each applicant is reviewed in terms of all of the above criteria and in addition, each must have completed the prerequisite course work in education and be at least of senior standing. Student teaching for the credential is a full-time assignment for one quarter in Elementary Education 410A and a full-time assignment for one quarter in 410B, and no concurrent course work should be taken beyond the required Elementary Education 341 and 343 methods courses.

Students who fail to successfully complete Elementary Education 410A or 410B, 341 or 343 will be denied continuation in the program. An appeal process is available. Consult the Department Office for details.

Program prerequisites (8 units):

Completion of the following course work with a grade point average of 3.0 with no course grade lower than "B-."

1. EELB 300. Principles and Practices in Elementary School Teaching (4)
 2. EELB 331. Growth and Development of the Young Child (4)
- or
- Psyc 320. Psychology of Middle Childhood (4)

Credential Requirements (42 units)

Completion of the following course work with a grade point average of 3.0 with no course grade lower than "B-."

1. Educ 332. Psychological Foundations of Education (4)
2. EELB 345A. Reading/Language Arts in the Elementary School: Multiple Subject (6)
3. EELB 340. Elementary Curriculum and Methods I (4)
4. Student Teaching (Phase One):
 - EELB 341. Elementary Curriculum and Methods II (4)
 - EELB 410A. Elementary Student Teaching (10)

5. Student Teaching (Phase Two):
 EEIB 343. Elementary Curriculum and Methods III (4)
 EEIB 410B. Elementary Student Teaching (10)

Additional Requirement

Students must also complete:

- One of the following to fulfill the United States Constitution requirement (or successful completion of an examination administered through the Office of Extended Education):
 - Hist 200. United States History to 1877 (4)
 - Hist 540. Constitutional History of the United States (4)
 - PSci 203. American Government (4)
 - PSci 410. American Constitutional Law (4)
 - PSci 411. The Bill of Rights (4)
 - SSci 146. American Civilization (4)

Upon completing the requirements for the baccalaureate degree, subject matter verification, subject matter competence, program completion, the U.S. Constitution requirement, and two quarters of full-time student teaching, candidates will be awarded a certificate of completion from California State University, San Bernardino and may apply for a preliminary credential.

Within five years candidates must complete a fifth year of study (45 quarter hours of approved upper-division and/or graduate course work beyond the Bachelor of Arts not CEUs) and meet the health education, special education and computer literacy requirements (listed below) to obtain a professional clear credential.

Health education, special education and computer literacy requirements:

- One of the following to fulfill the health education requirement:
 - HSci 332. Health Education in the Elementary School (4)
 - HSci 333. Health Education in the Secondary School (4)
 - HSci 364. Drug and Alcohol Use and Abuse (4)
 - HSci 435. Health and Human Development (4)
 - HSci 440. Family Health Issues for Educators (2)
 (with a grade of C or better).
- One of the following to fulfill the special education requirement (with a grade of B- or better):
 - ESpe 523. Mainstreaming Handicapped Individuals in the Elementary Classroom (2)

ESpe 530. Psychology and Education of Exceptional Individuals (4)

- The following are required to fulfill the computer literacy requirement (with a grade of B- or better):

Educ 537. Introduction to Computer Technology in Education (2)

Educ 546. Computer Based Technology in Education (4)

Note: Pending state legislation may require curricular changes. Students must consult the current information sheet for this credential in the Department of Elementary and Bilingual Education.

MULTIPLE SUBJECT CREDENTIAL PROGRAM (INTERN TRACK)

Requirements (70 units)

The multiple subject internship is an alternate program for those student teachers who have been placed in an employment setting. Specific admission requirements must be met beyond acceptance to the regular student teaching program and additional course work for intern teachers is required.

Admission to the University must precede admission to the credential program. Special credential advisement meetings are held during the first week of each quarter to distribute applications, with times and places announced in advance.

Students may enroll in Elementary Education 300, Principles and Practices in Elementary School Teaching, and 331, Growth and Development of the Young Child, or Psychology 320, Psychology of Middle Childhood, without being admitted to the program. (Note: Elementary Education 300 has a prerequisite.)

Admission to the Program

One quarter in advance of the time students intend to enroll in Education 332, Elementary Education 340 and 345, students must submit an application for entry into the basic credential program. (No applications are accepted in the summer quarter.) This application is due by Thursday of the sixth week of the quarter prior to enrolling in any of these courses. Students are particularly advised to complete the required California Basic Educational Skills Test (CBEST) and, if necessary, the General Knowledge Section of the National Teacher Examination Core Battery as early as possible in order to be able to provide verification of passing scores with their application for admission to the program.

Admission to the basic credential program is based on the following criteria:

1. Three written recommendations, at least two from faculty members in the student's major department;
2. Meet with and obtain signature of assigned Elementary Education advisor on application;
3. Verification of a negative tuberculin examination within the last 24 months;
4. Audiovisual clearance from Audiovisual Services;
5. Academic Achievement;
 - A. Applicants must possess the following minimum grade-point averages:
 - (1) Liberal studies majors will be held to the 50th percentile (2.86 at California State University, San Bernardino) for their cumulative undergraduate GPA for the three academic years (1989–1992);
 - (2) Candidates with a major other than liberal studies will be held to the 50th percentile equivalent for their cumulative undergraduate GPA for that major or 2.6, whichever is higher, for the three academic years (1989–1992). For detailed information on the GPA requirement for majors and for graduates of other universities see an education advisor;
 - (3) Transfer candidates who complete 45 or more units as an undergraduate at California State University, San Bernardino will have their cumulative GPAs computed for admission with the same standards and on the basis of course work completed at California State University, San Bernardino only;
 - (4) 3.0 in professional education course work, with no course grade in this area lower than "B-."
 - B. Written verification of registration for or passage of assessment of subject matter competence in liberal studies.

No candidate may be recommended for the credential who has received a grade of less than "C" (2.0) in any other course required for the credential, such as Health Science courses. In the case of a repeated class, only the highest grade the student has received will be considered for the purpose of this requirement.
6. One of the following:
 - A. Completion of 4/5 of the requirements for the liberal studies major as offered on this campus and verified in writing by the Liberal Studies Coordinator, or an approved diversified major on another campus,

OR

 - B. Written verification of registration for a passing score (GK660) on the General Knowledge Section of the National Teacher Examination Core Battery. (This option is

required for those students who do not have a California approved Liberal Studies waiver program.)

7. Submission of a certificate of clearance issued by the Commission on Teacher Credentialing or evidence of a credential or permit authorizing public school teaching in California;
8. Completion of or concurrent enrollment in the upper-division writing requirement at the university or the equivalent graduation requirement at another accredited institution, or a score of 41 or better on the written portion of the CBEST. (CBEST examination does not meet the upper-division writing requirement for the Master of Arts degree.);
9. Written verification of registration for or passing score on the California Basic Educational Skills Test;
10. Satisfactory completion of:
 1. EELB 300. Principles and Practices in Elementary School Teaching
 2. EELB 331. Growth and Development of the Young Child

or

 - Psyc 320. Psychology of Middle Childhood

with a GPA of 3.0 and no course grade lower than "B-."
11. Written statement of educational philosophy and goals completed in Elementary Education 300.

Admission to Intern Teaching

Once admission to the program has been granted, students may enroll in:

- Educ 332. Psychological Foundations of Education (Previously Education 330)
- EELB 340. Elementary Curriculum and Methods I
- EELB 345A. Reading/Language Arts in the Elementary School: Multiple Subject

Internship programs begin in June. Applications to enter the program must be submitted in the winter quarter along with the student teaching application.

Admission to Intern Teaching involves three (3) stages: admission to student teaching; admission to intern teaching; and securing employment.

Stage 1: Applicant

The applicant must be admitted to student teaching.

Admission to student teaching is based on the following criteria:

1. Interview by members of the Department of Elementary and Bilingual Education and other appropriate faculty:

2. One of the following:
 - A. Completion of the requirements for the liberal studies major as offered at this campus and verified in writing by the liberal studies coordinator or an approved diversified major on another campus,
 - OR**
 - B. Satisfactory completion of the General Knowledge Section (GK660) of the National Teacher Examination Core Battery.
3. Submission of evidence that the applicant has passed the CBEST.
4. Satisfactory completion of the following:
 - EDUC 332. Psychological Foundations of Education
 - EELB 340. Elementary Curriculum and Methods I
 - EELB 345A. Reading/Language Arts in the Elementary School: Multiple Subject
5. Demonstration of subject matter competence as assessed by the liberal studies faculty.
6. Verification of a negative tuberculin examination within the last 24 months.
7. Completion of the upper division writing requirement at the University or the equivalent graduation requirement at another accredited institution or a score of 41 or better on the written portion of CBEST.

In addition, the following criteria are used: professional aptitude, personality and character, oral and written language usage, and many-sided interests.

All course work taken at another college, or more than seven years ago, is subject to approval by the chair of the Elementary and Bilingual Education Department. No more than 14 units of the credential program may be transferred. Student teaching is never transferable.

Stage 2: Candidate

After qualifying for student teaching the applicant must meet two other requirements in order to qualify as a candidate:

- A. Elementary school teaching experience. Each applicant must have substantial classroom experience. (Information about this requirement is available in the Student Teaching Office, FO-131.)
- B. Demonstration lesson on video tape with accompanying lesson plans.

Stage 3: Intern

The final step involves obtaining employment from one of the approved cooperating districts. Once the candidate gains employment, he or she is considered an intern.

Each applicant is reviewed in terms of all of the above criteria, must have completed the profes-

sional education course work and must have received the bachelor's degree by June of the beginning of the intern year.

The intern is employed full time in a teaching assignment in an approved cooperating school district while enrolled in courses at CSUSB. The study plan is as follows:

Summer	
EELB 341.	Elementary Curriculum and Methods II (4)
Educ 550B.	Internship Seminar (2)
EELB 412A.	Supervised Intern Teaching in Multiple Subject (10) (for students who begin employment in the summer)
Fall	
Educ 550D.	Internship Seminar (4)
EELB 412A. or 412B.	Supervised Intern Teaching in Multiple Subject (10) (year-round interns)
Winter	
EELB 343.	Elementary Curriculum and Methods III (4)
Educ 555.	Internship Seminar II (4)
EELB 412B. or 412C.	Supervised Intern Teaching in Multiple Subject (10) (year-round interns)
Spring	
Educ 556D.	Internship Seminar III (4)
EELB 412C. or	Supervised Intern Teaching in Multiple Subject (10)
Educ 542.	Seminar in Education (4) (for students who took 412A in the summer)

The CSUSB Intern Program begins in the summer and continues for a full twelve months. Candidates must be prepared to begin coursework in June and pay Summer Session Extended Education fees. CSUSB internships are not available for mid-year employment situations.

Students apply for a one-year intern credential once they secure a position. Any student who fails one of the above courses must retake and pass the course within a two-year period.

Additional Requirement

Students must also complete:

1. *One of the following to fulfill the United States Constitution requirement (or successful completion of an examination administered through the Office of Extended Education):*
 - Hist 200. United States History to 1877 (4)
 - Hist 540. Constitutional History of the United States (4)
 - PSci 203. American Government (4)
 - PSci 410. American Constitutional Law (4)

- PSci 411. The Bill of Rights (4)
 SSci 146. American Civilization (4)

Upon completing the requirements for the baccalaureate degree, subject matter competence, program completion, the U.S. Constitution requirement, and the one year of full-time intern teaching, candidates will be awarded a certificate of completion from California State University, San Bernardino and may apply for a preliminary credential.

Within five years candidates must complete a fifth year of study (45 quarter units of approved upper-division and/or graduate course work beyond the Bachelor of Arts not CEUs) and meet the health education, special education and computer literacy requirements (listed below) to obtain a professional clear credential.

Health education, special education and computer literacy requirements:

1. *One of the following to fulfill the health education requirement (with grade of "C" or better):*

- HSci 332. Health Education in the Elementary School (4)
 HSci 333. Health Education in the Secondary School (4)
 HSci 364. Drug and Alcohol Use and Abuse (4)
 HSci 435. Health and Human Development (4)
 HSci 440. Family Health Issues for Educators (2)

2. *The following to fulfill the special education requirement (with grade of "B- " or better):*

- ESpe 523. Mainstreaming Handicapped Individuals in the Elementary Classroom (2)

or

- ESpe 530. Psychology and Education of Exceptional Individuals (4)

3. *The following are required to fulfill the computer literacy requirement (with grade of "B- " or better):*

- Educ 537. Introduction to Computer Technology in Education (2)
 Educ 546. Computer Based Technology in Education (4)

Note: Pending state legislation may require curricular changes. Students must consult the current information sheet for this credential in the Department of Elementary and Bilingual Education.

MULTIPLE SUBJECT BILINGUAL / CROSS-CULTURAL EMPHASIS (SPANISH) CREDENTIAL PROGRAM

Requirements (44 units)

Admission to the University must precede admission to the credential program. Special credential advisement meetings are held during the first week of each quarter to distribute applications, with times and places announced in advance.

Students may enroll in Elementary Education 300, Principles and Practices in Elementary School Teaching, and 331, Growth and Development of the Young Child, or Psychology 320, Psychology of Middle Childhood without being admitted to the program. (**Note:** Elementary Education 300 has prerequisites.)

Admission to the Program

One quarter in advance of the time students intend to enroll in Education 332, Elementary Education 340 and 345B, students must submit an application for entry in the basic credential program. (No applications are accepted in the summer quarter.) This application is due by Thursday of the sixth week of the quarter prior to enrolling in any of these courses. Students are particularly advised to complete the required California Basic Educational Skills Test (CBEST) and if necessary, the General Knowledge Section of the National Teaching Examination Core Battery as early as possible in order to be able to provide verification of passing scores with their application for admission to the program.

Admission to the basic credential program is based on the following criteria:

1. Three written recommendations, at least two from faculty members in the student's major department;
2. Meet with and obtain signature of assigned Elementary Education advisor on application;
3. Verification of a negative tuberculin examination within the last 24 months;
4. Audiovisual clearance from Audiovisual Services;
5. Academic Achievement;
 - A. Applicants must possess the following minimum grade-point averages:
 - (1.) Liberal studies majors will be held to the 50th percentile (2.86 for graduates of California State University, San Bernardino) for cumulative undergraduate GPA for the three academic years (1989-1992);
 - (2.) Candidates with a major other than liberal studies will be held to the 50th percentile equivalent for the cumulative undergraduate GPA for that major or 2.6, whichever is higher, for the three academic years

(1989–1992). For detailed information on the GPA requirements for majors and for graduates of other universities see an education advisor;

- (3.) Transfer candidates who complete 45 or more units as an undergraduate at California State University, San Bernardino will have cumulative GPAs computed for admission with the same standards and on the basis of course work completed at California State University, San Bernardino only;
 - (4.) 3.0 in professional education course work, with no course grade in this area lower than "B-."
- B. Written verification of registration for or passage of the assessment of subject matter competence in liberal studies.

No candidate may be recommended for the credential who has received a grade lower than "C" (2.0) in any other course for the credential, such as Health Science courses. In the case of a repeated class, only the highest grade the student has received will be considered for the purpose of this requirement.

6. One of the following:
 - A. Completion of 4/5 of the requirements for the liberal studies major as offered on this campus and verified in writing by the liberal studies coordinator, or an approved diversified major on another campus,

OR

 - B. Written verification of registration for or passing score (GK660) on the General Knowledge Section of the National Teacher Examination Core Battery. (This option is required for those students who do not have a California approved liberal studies waiver program.)
7. Submission of a certificate of clearance issued by the Commission on Teacher Credentialing or evidence of a credential or permit authorizing public school teaching in California;
8. Completion of or concurrent enrollment in the upper-division writing requirement at this University or the equivalent graduation requirement at another accredited institution, or a score of 41 or better on the written portion of the CBEST. (CBEST exam does not meet the upper-division writing requirement for the Master of Arts degree.);
9. Written verification of registration for or passing score on the California Basic Educational Skills Test;
10. Satisfactory completion of the following:
 1. EEIB 300. Principles and Practices in Elementary School Teaching
 2. EEIB 331. Growth and Development of the Young Child

or

 - Psyc 320. Psychology of Middle Childhood

with GPA of 3.0 and no course grade lower than "B-."

11. Written statement of educational philosophy and goals completed in Elementary Education 300.

Admission to Student Teaching

Once admission to the program has been granted, students may enroll in:

- | | |
|------------|---|
| Educ 332. | Psychological Foundations of Education (previously Education 330) |
| EEIB 340. | Elementary Curriculum and Methods I |
| EEIB 345B. | Reading/Language Arts in the Elementary School: Bilingual |

One quarter in advance of the time students intend to enroll in Elementary Education 344 and 410A (student teaching), students must submit an application for student teaching. (No applications are accepted in the summer quarter.) This application is due by Thursday of the fifth week of the quarter prior to enrolling in student teaching.

Admission to student teaching is based on the following criteria:

1. Interview by members of the Department of Elementary and Bilingual Education and other appropriate faculty.
2. One of the following:
 - A. Completion of the requirement for the Liberal Studies major as offered at this campus and verified in writing by the liberal studies coordinator or an approved diversified major on another campus,

OR

 - B. Satisfactory completion of the General Knowledge Section (GK660) of the National Teacher Examination Core Battery.
3. Submission of evidence that the applicant has passed the California Basic Educational Skills Test;
4. Satisfactory completion of the following:

Educ 332.	Psychological Foundations of Education
EEIB 340.	Elementary Curriculum and Methods I
EEIB 345B.	Reading/Language Arts in the Elementary School: Bilingual
5. Demonstration of subject matter competence as assessed by the liberal studies faculty.
6. Verification of a negative tuberculin examination within the last 24 months.
7. Completion of the upper division writing requirement at this University or the equivalent graduation requirement at another accredited institution or a score of 41 or better on the written portion of the CBEST.
8. Demonstration of competence in oral and written Spanish at level 2 on the Foreign Service Institute (FSI) Proficiency Rating. (**Note:** For

information on language examination, inquire at the Student Teaching Office, FO-131. To be recommended for the bilingual emphasis credential, candidates must demonstrate competence at level 3 of the FSI Rating.)

9. Knowledge of the culture of the Latin/Chicano population, demonstrated by attaining a score of 60 on the culture examination.

(Note: For information on the culture examination, inquire at the Student Teaching Office, FO-131. To be recommended for the bilingual emphasis credential, candidates must demonstrate competence with a score of 70 on the culture examination.)

In addition the following criteria are used: professional aptitude, personality and character, oral and written language usage, and many-sided interests.

All course work taken at another college, or more than seven years ago, is subject to approval by the chair of the Elementary and Bilingual Education Department. No more than 14 units of the credential program may be transferred. Student teaching is never transferable.

Each applicant is reviewed in terms of all of the above criteria and in addition, each must have completed the prerequisite course work in education and be at least of senior standing. Student teaching for the credential is a full-time assignment for one quarter in Elementary Education 410A and a full-time assignment for one quarter in 410B, and no concurrent course work should be taken beyond the required Elementary Education 344 and 343 courses. Students who fail to successfully complete Elementary 410A or 410B, 344 or 343 will be denied continuation in the program. An appeal process is available. Consult the department office for details.

Program prerequisites (8 units)

1. EEIB 300. Principles and Practices in Elementary School Teaching (4)
2. EEIB 331. Growth and Development of the Young Child (4)

or

Psyc 320. Psychology of Middle Childhood (4)

with a grade point average of 3.0 with no course grades lower than a B-.

Credential Requirements (42 units)

Completion of the following course work with a grade point average of 3.0 with no course grade lower than "B-:"

1. Educ 332. Psychological Foundations of Education (4)
2. EEIB 345B. Reading/Language Arts in the Elementary School: Bilingual (6)

3. EEIB 340. Elementary Curriculum and Methods I (4)
4. Student Teaching (Phase One):
EEIB 344. Curriculum and Methods for Bilingual/Cross-Cultural Education (4)
EEIB 410A. Elementary Student Teaching (4)
5. Student Teaching (Phase Two):
EEIB 343. Elementary Curriculum and Methods III (4)
EEIB 410B. Elementary Student Teaching (10)

Additional Requirement

Students must also complete:

1. *One of the following to fulfill the United States Constitution requirement (or successful completion of an examination administered through the Office of Extended Education):*

Hist 200. United States History to 1877 (4)

Hist 540. Constitutional History of the United States (4)

PSci 203. American Government (4)

PSci 410. American Constitutional Law (4)

PSci 411. The Bill of Rights (4)

SSci 146. American Civilization (4)

Upon completing the requirements for the baccalaureate degree, subject matter verification, subject matter competence, program completion, the U.S. Constitution requirement and two quarters of full-time student teaching, candidates will be awarded a certificate of completion from California State University, San Bernardino and may apply for a preliminary credential.

Within five years candidates must complete a fifth year of study (45 quarter hours of approved upper-division and/or graduate course work beyond the Bachelor of Arts not CEUs) and meet the health education, special education and computer literacy requirements (listed below) to obtain a professional clear credential.

Health education, special education and computer literacy requirements:

1. *One of the following to fulfill the health education requirement (with a grade of "C" or better):*

HSci 332. Health Education in the Elementary School (4)

HSci 333. Health Education in the Secondary School (4)

HSci 364. Drug and Alcohol Use and Abuse (4)

HSci 435. Health and Human Development (4)

HSci 440. Family Health Issues for Educators (2)

2. *One of the following to fulfill the special education requirement (with a grade of "B- " or better):*

ESpe 523. Mainstreaming Handicapped Individuals in the Elementary Classroom (2)

ESpe 530. Psychology and Education of Exceptional Individuals (4)

3. *The following are required to fulfill the computer literacy requirement (with a grade of "B- " or better):*

Educ 537. Introduction to Computer Technology in Education (2)

Educ 546. Computer Based Technology in Education (4)

Note: Pending state legislation may require curricular changes. Students must consult the current information sheet for this credential in the School of Education.

2. Meet with and obtain signature of a Secondary Education faculty member on a credential program form;
3. Verification of a negative tuberculin examination within the last 24 months;
4. Audiovisual clearance from Audiovisual Services;
5. Academic Achievement;

A. Applicants must possess the following minimum grade-point averages:

- (1) Single Subject majors will be held to the 50th percentile equivalent for their cumulative undergraduate GPA for that major. A list of the required GPAs is available from the Student Teaching Office, the Department of Secondary and Vocational Education, and any single subject advisor in education;
- (2) Candidates with a major other than the single subject field in which they plan to student teach will be held to the 50th percentile equivalent for their cumulative undergraduate GPA for that major or 2.6, whichever is higher, for the three academic years (1989-1992);
- (3) Transfer candidates who complete 45 or more units as an undergraduate at California State University, San Bernardino will have their cumulative GPAs computed for admission with the same standards and on the basis of course work completed at California State University, San Bernardino only;
- (4) 3.0 in prerequisite course work, with no course grade in this area lower than "B-."

B. Written verification of registration for or passage of the assessment of subject matter competence in the appropriate single subject major department.

No candidate may be recommended for the credential who has received a grade of less than "C" (2.0) in any other course required for the credential, such as Health Science courses. In the case of a repeated class, only the highest grade the student has received will be considered for the purpose of this requirement.

6. A. Completion of 4/5 of the requirements for one of the following degree programs at this university:

Single Subject Credential

Art
English
Foreign Language

Government
Health Science
History
Life Science

Degree Major

B.A. Art (Plan I)
B.A. English
B.A. Spanish or
B.A. French
B.A. Political Science
B.S. Health Sciences
B.A. History (Track A)
B.A. Biology
B.S. Biology

SINGLE SUBJECT TEACHING CREDENTIAL

Requirements (38 units)

Admission to the University must precede admission to the credential program. Special credential advisement meetings are held during the first week of each quarter to distribute applications, with times and places announced in advance.

Students may enroll in Education 200, Introduction to Careers in Education, Secondary Education 443, Curriculum Development for Adolescents, or Psychology 328, Psychology of Adolescent Development without being admitted to the program.

Admission to the Program

One quarter in advance of the time students intend to enroll in Education 332, Secondary Education 440 and 445, students must submit an application for entry into the basic credential program. (No applications are accepted in the summer quarter.) This application is due by Thursday of the sixth week of the quarter prior to enrolling in any of these courses. Students are particularly advised to complete the required California Basic Educational Skills Test (CBEST) and (if necessary) the appropriate NTE exam as early as possible in order to be able to provide verification of passing scores with their application for admission to the program.

Admission to the basic credential is based on the following criteria:

1. Three written recommendations, at least two from faculty members in the student's major department;

Mathematics	B.A. Mathematics B.S. Mathematics
Music	B.A. Music (Option II)
Physical Education	B.S. Physical Education
Physical Science	B.A. Chemistry B.S. Chemistry B.A. Physics B.S. Physics
Social Science	B.A. Social Sciences (Track A)

For further information on other majors, supplementary authorizations, examinations and waivers, students should contact the Department of Secondary and Vocational Education and/or the appropriate major department.

OR

- B. Written verifications of registration for or passing score on the National Teacher Examination (Specialty Examination) in the Single Subject.
7. Submission of a certificate of clearance issued by the Commission on Teacher Credentialing or evidence of a credential or permit authorizing public school teaching in California;
8. Completion of or concurrent enrollment in the upper-division writing requirement at the University or the equivalent graduation requirement at another accredited institution, or a score of 41 or better on the written portion of the CBEST. (CBEST exam does not meet the upper-division writing requirement for the Master of Arts degree.);
9. Written verification of registration for or passing score on the CBEST;
10. Satisfactory completion of the following prerequisite courses:
 - A. Educ 200. Introduction to Careers in Education
 - B. ESec 443. Curriculum Development for Adolescents
 or
 - Psyc 328. Psychology of Adolescent Development with a GPA of 3.0 and no course grade lower than "B-."
11. Written statement of educational philosophy and goals.

Admission to Student Teaching

Once admission to the program has been granted, students may enroll in:

- A. Educ 332. Psychological Foundations of Education (previously Education 330)
- B. ESec 440. Secondary School Curriculum and Instruction I
- C. ESec 445. Teaching Reading and Writing in Secondary School Subjects
(These courses have prerequisites.)

One quarter in advance of the time students intend to enroll in Secondary Education 441 and 421A (student teaching), students must submit an application for student teaching. (No applications are accepted in the summer quarter.) This application is due by Thursday of the fifth week of the quarter prior to enrolling in student teaching.

Admission to student teaching is based on the following criteria:

1. Interview by members of the Department of Secondary and Vocational Education.
2. One of the following:
 - A. Completion of one of the following degree programs at this University:

**Single Subject
Credential**

Art
English
Foreign Language

Government
Health Science
History
Life Science

Mathematics

Music
Physical Education
Physical Science

Social Science

Degree Major

B.A. Art (Plan I)
B.A. English
B.A. Spanish or
B.A. French
B.A. Political Science
B.S. Health Sciences
B.A. History (Track A)
B.A. Biology
B.S. Biology
B.A. Mathematics
B.S. Mathematics
B.A. Music (Option II)
B.S. Physical Education
B.A. Chemistry
B.S. Chemistry
B.A. Physics
B.S. Physics
B.A. Social Sciences
(Track A)

OR

- B. Completion of the National Teacher Examination (Specialty Examination) in the Single Subject area.
3. Submission of evidence that the applicant has passed the CBEST.
4. Satisfactory completion of the following:
 - Educ 332. Psychological Foundations of Education
 - ESec 440. Secondary School Curriculum and Instruction I
 - ESec 445. Teaching Reading and Writing in Secondary School Subjects
(These courses have prerequisites.)
5. Demonstration of subject matter competence as assessed by the faculty of the appropriate single subject major department.
6. Verification of a negative tuberculin examination within the last 24 months.
7. Completion of the upper-division writing requirement at the University, or the equivalent graduation requirement at another accredited institution, or a score of 41 or better on the written portion of the CBEST. (CBEST exam does

not meet the upper-division writing requirement for the Master of Arts degree.)

In addition, the following criteria are used: professional aptitude, personality and character, oral and written language usage, and many-sided interests.

All course work taken at another institution, or more than seven years ago, is subject to approval by the Chair of the Department of Secondary and Vocational Education. No more than 14 units of the credential program may be transferred. Student teaching is never transferable.

Each applicant is reviewed in terms of all of the above criteria and in addition, each must have completed the prerequisite course work in education and be at least of senior standing. Student teaching for the credential is a full-time assignment for one quarter in Secondary Education 421A and a full-time assignment for one quarter in Secondary Education 421B, and no concurrent course work should be taken beyond the required Secondary Education 441 and 480.

Students who fail to successfully complete Secondary Education 421A or 441 will be denied continuation in the program. An appeal process is available. Consult the department for details.

Program Prerequisites (6 units)

Completion of the following course work with a grade point average of 3.0 with no course grade lower than "B-."

1. Educ 200. Introduction to Careers in Education (2)
 2. ESec 443. Curriculum Development for Adolescents (4)
- or
- Psyc 328. Psychology of Adolescent Development (4)

Credential Requirements (38 units)

Completion of the following course work with a grade point average of 3.0 with no course grade lower than "B-:"

1. Educ 332. Psychological Foundations of Education (4)
 2. ESec 440. Secondary School Curriculum and Instruction I (4)
 3. ESec 445. Teaching Reading and Writing in Secondary School Subjects (4)
 4. *Student Teaching (Phase One):*
 ESec 421A. Secondary Student Teaching (10)
 ESec 441. Secondary School Curriculum and Instruction II (4)
- or
- ESec 480. Student Teaching Seminar (2)

Note: In lieu of Secondary Education 441 students may take a course in the candidate's discipline numbered 499 (Methods and Materials for Teaching in a Single Subject Field).

5. *Student Teaching (Phase Two):*
 ESec 421B. Secondary Student Teaching (10)
 ESec 480. Student Teaching Seminar (2)
 or
 ESec 441. Secondary School Curriculum and Instruction II (4)

Additional Requirement

Students must also complete:

1. *One of the following to fulfill the United States Constitution requirement (or successful completion of an examination administered through the Office of Extended Education):*
 Hist 200. United States History to 1877 (4)
 Hist 540. Constitutional History of the United States (4)
 PSci 203. American Government (4)
 PSci 410. American Constitutional Law (4)
 PSci 411. The Bill of Rights (4)
 SSci 146. American Civilization (4)

Upon completing the requirements for the baccalaureate degree, subject matter competence, program completion, the U.S. Constitution requirement, and two quarters of student teaching, candidates will be awarded a certificate of completion from the California State University, San Bernardino and may apply for a preliminary credential.

Within five years candidates must complete a fifth year of study (45 quarter hours of approved upper-division and/or graduate course work beyond the Bachelor of Arts) and meet the health education, special education and computer literacy requirements (listed below) to obtain a professional clear credential.

Health education, special education and computer literacy requirements:

1. *One of the following to fulfill the health education requirement:*
 HSci 332. Health Education in the Elementary School (4)
 HSci 333. Health Education in the Secondary School (4)
 HSci 364. Drug and Alcohol Use and Abuse (4)
 HSci 435. Health and Human Development (4)
 HSci 440. Family Health Issues for Educators (2)
2. *One of the following to fulfill the special education requirement (required for any single subject student who has not completed*

Education 332, Secondary Education 421A, 421B, 440 and 445 at this university since the beginning of winter quarter of 1979):

Esec 602N. Special Topics in Secondary Education: The Exceptional Student (2)

ESpe 530. Psychology and Education of Exceptional Individuals (4)

3. *The following are required to fulfill the computer literacy requirement:*

Educ 537. Introduction to Computer Technology in Education (2)

Educ 546. Computer Based Technology in Education (4)

Note: Pending state legislation may require curricular changes. Students must consult the current information sheet for this credential in the Department of Secondary and Vocational Education.

SINGLE SUBJECT CREDENTIAL (INTERN TRACK)

Requirements (64 units)

The single subject internship is an alternate program for those student teachers who have been placed in an employed setting. Admission and program requirements differ from those of the regular credential program.

Admission to the Program

Admission to the University must precede admission to the credential program. Special credential advisement meetings are held during the first week of each quarter to distribute applications, with times and places announced in advance.

Students may enroll in Education 200, Introduction to Careers in Education, Secondary Education 443, Curriculum Development for Adolescents, or Psychology 328, Psychology of Adolescent Behavior, without being admitted to the program.

PLEASE NOTE: The admission point for entry to basic credential programs has been changed as required by Executive Order #547 from the CSU Chancellor's Office. Students planning to begin the professional education program after the fall term of 1990 must have completed items No. 1 through 9 below prior to enrolling in Education 332, Secondary Education 421, 440, 441, 445 or 480. Students are particularly advised to complete the California Basic Educational Skills Test CBEST and (if necessary) the NTE exams as early as possible in order to be able to provide verification of passing scores with their application for admission to the program.

Admission to the program is based on the following criteria:

1. Three written recommendations, at least two from faculty members in the student's major department;
2. Interview by a special panel of university faculty, secondary teachers, and school and district administrators;
3. Verification of a negative tuberculin examination within the last 24 months;
4. Audiovisual clearance from Audiovisual Services;
5. Academic Achievement;
 - A. Applicants must possess the following minimum grade-point averages:
 1. Single subject majors will be held to the 50th percentile equivalent for California State University San Bernardino majors for their cumulative undergraduate GPA. A list of the required GPAs is available from the Credentials Office, the department chair in Education, the department chair in that major, and any single subject advisor in Education.
 2. Candidates with a major other than the single subject field in which they plan to student teach will be held to the 50th percentile equivalent for that major at California State University San Bernardino for their cumulative undergraduate GPA or 2.6, whichever is higher, for the three academic years (1988-1991).
 3. Transfer candidates who complete 45 or more units as an undergraduate at California State University San Bernardino will have their cumulative GPAs computed for admission with the same standards and on the basis of course work completed at California State University San Bernardino only.
 4. 3.0 GPA in prerequisite course work with no course grade in this area lower than "B-."
 - B. Demonstrate subject matter competence as assessed by the faculty of the appropriate single subject teaching major department. No candidate may be recommended for the credential who has received a grade of less than "C" (2.0) in any other course required for the credential, such as Health Science courses. In the case of a repeated class, only the highest grade the student has received will be considered for the purpose of this requirement.
6. A. Completion of one of the following degree programs at this University:

Single Subject

Credential

Art
English
Foreign Language

Government
Health Science

Degree Major

B.A. Art (Plan I)
B.A. English
B.A. Spanish or
B.A. French
B.A. Political Science
B.S. Health Science

History	B.A. History (Track A)
Life Science	B.A. Biology B.S. Biology
Mathematics	B.A. Mathematics B.S. Mathematics
Music	B.A. Music (Option II)
Physical Education	B.S. Physical Education
Physical Science	B.A. Chemistry B.S. Chemistry B.A. Physics B.S. Physics
Social Science	B.A. Social Sciences (Track A)

For further information on other majors, supplementary authorizations, examinations and waivers, students should contact the School of Education and/or the appropriate department.

OR

- B. Completion of the National Teacher Examination (Specialty Examination) in the Single Subject.
- Submission of a certificate of clearance issued by the Commission on Teacher Credentialing or evidence of a credential or permit authorizing public school teaching in California;
 - Completion of the upper-division writing requirement at the university or the equivalent graduation requirement at another accredited institution, or a score of 41 or better on the written portion of the CBEST. (CBEST examination does not meet the upper-division writing requirement for the Master of Arts degree.);
 - Submission of evidence that the applicant has passed the California Basic Educational Skills Test;
 - Satisfactory completion of the following prerequisite courses:
 - Educ 332. Psychological Foundations of Education (Previously Education 330)
 - ESec 440. Secondary School Curriculum and Instruction I
 - ESec 445. Teaching Reading and Writing in Secondary School Subjects
 (These courses have prerequisites.)
 - At least two years experience in a school setting as a teacher, aide or counselor. Daily substituting does not meet this requirement.

In addition, the following criteria are used: professional aptitude, personality and character, oral and written language usage, and many-sided interests.

All course work taken at another college, or more than seven years ago, is subject to approval by an advisor in the School of Education.

During enrollment in Education 200, candidates must file a form indicating an intent to apply for student teaching in a subsequent quarter.

Applications for intern candidacy must be submitted in the winter quarter of the calendar year preceding commencement of an internship. (Internships begin only in the fall quarter and run for one academic year.) It is the responsibility of the intern candidate to obtain employment. The university provides the names of school districts that have intern contracts. Applicants who are accepted to intern candidacy, but who do not find a position, are qualified for regular student teaching.

Students are to ascertain, from the Credentials Office, the deadline for submitting an application. Each applicant is reviewed in terms of all of the above criteria and in addition, each must have completed the prerequisite course work in education and psychology and be at least of senior standing.

Program prerequisites (6 units):

- Educ 200. Introduction to Careers in Education (2)
 - ESec 443. Curriculum Development for Adolescents (4)
- or
- Psyc 328. Psychology of Adolescent Development (4)

Credential Requirements (58 units)

Completion of the following course work with a grade point average of 3.0 with no course grade lower than "B-."

- Educ 332. Psychological Foundations of Education (4)
 - ESec 440. Secondary School Curriculum and Instruction I (4)
 - ESec 445. Teaching Reading and Writing in Secondary School Subjects (4)
 - Student Teaching (Phase One):*
Educ 550D. Internship Seminar (4)
ESec 422A. Supervised Intern Teaching in Single Subject (10)
ESec 602L. Special Topics in Secondary Education: Beginning School Survival Skills (2)
 - Student Teaching (Phase Two):*
Educ 555B. Internship Seminar II (2)
ESec 422B. Supervised Intern Teaching in Single Subject (10)
ESec 441. Secondary School Curriculum and Instruction II (4)
- Note:** *In lieu of Secondary Education 441 students may take a course in the candidate's discipline numbered 499 (Methods and Materials for Teaching in a Single Subject Field).*
- Student Teaching (Phase Three):*
Educ 556B. Internship Seminar III (2)
ESec 422C. Supervised Intern Teaching in Single Subject (10)

Additional Requirements

Students must also complete:

One of the following to fulfill the United States Constitution requirement (or successful completion of an examination administered through the University Counseling and Testing Center):

- Hist 200. United States History to 1877 (4)
- Hist 540. Constitutional History of the United States (4)
- PSci 203. American Government (4)
- PSci 410. American Constitutional Law (4)
- PSci 411. The Bill of Rights (4)
- SSci 146. American Civilization (4)

Upon completing the requirements for the baccalaureate degree, subject matter competence, program completion, the U.S. Constitution requirement, and three quarters of student teaching, candidates may apply for a preliminary credential.

Within five years candidates must complete a fifth year of study (45 quarter units of approved upper-division and/or graduate course work beyond the Bachelor of Arts) and meet the health education, special education and computer literacy requirements (listed below) to obtain a professional clear credential.

One of the following to fulfill the health education requirement:

- HSci 332. Health Education in the Elementary School (4)
- HSci 333. Health Education in the Secondary School (4)
- HSci 364. Drug and Alcohol Use and Abuse (4)
- HSci 435. Health and Human Development (4)
- HSci 440. Family Health Issues for Educators (2)

The following to fulfill the special education requirement (required for any single subject student who has not completed Education 330, 332, Secondary Education 422A, 422B, 440 and 445 at this university since the beginning of winter quarter of 1979):

- ESpe 530. Psychology and Education of Exceptional Individuals (4)

The following are required to fulfill the computer literacy requirement:

Level I

- CSci 127. Introduction to Computer Technology for Educators (4)

or

- Educ 537. Introduction to Computer Technology in Education (2)

Level II

- Educ 546. Computer Based Technology in Education (4)

or

- Mus 535. Computer Studies for Music Teachers (4) (for music students only)

Note: Pending state legislation may require curricular changes. Students must consult the current information sheet for this credential in the School of Education Office.

DESIGNATED SUBJECTS TEACHING CREDENTIAL PROGRAM (VOCATIONAL AND ADULT EDUCATION)

**Requirements (Part-time Credential 8
units, Full-time Credential 16 units)**

Admission to the Program

Appropriate work experience and a high school diploma (or the equivalent) are required for admission to the Designated Subjects Teaching Credential Program. Applicants should have at least five years of verifiable work experience in the vocation, skill, or trade to be taught. Appropriate academic course work may be counted for up to two of the five years of required work experience. At least one year of the work experience must have been completed within the three years immediately preceding application for the credential.

Credential Requirements*Part-time Credential (8 units):*

1. EVoc 501. Principles and Methods for Teaching Designated Subjects (4)
2. EVoc 518. Field Work in Designated Subjects (4)

Full-time Credential (16 units):

1. EVoc 501. Principles and Methods for Teaching Designated Subjects (4)
2. EVoc 502. Instructional Support for Teaching Designated Subjects (4)
3. EVoc 503. Contemporary Issues in Teaching Designated Subjects (4)
4. EVoc 518. Field Work in Designated Subjects (4)

Additional Requirement (Full-time Credential)

Students must also complete:

1. *One of the following to fulfill the United States Constitution requirement (or successful completion of an examination administered through the office of Extended Education):*
 - Hist 200. United States History to 1877 (4)
 - Hist 540. Constitutional History of the United States (4)
 - PSci 203. American Government (4)
 - PSci 410. American Constitutional Law (4)
 - PSci 411. The Bill of Rights (4)
 - SSci 146. American Civilization (4)

In both, part-time and full-time credentials, a "preliminary" credential is issued on the basis of documented work experience, and the "clear" credential issued after the applicant has completed the indicated course work, met health education requirement (listed below) and actually taught under the "preliminary" credential.

Applicants having questions about designated subjects credentials should contact the Coordinator of the Vocational Education Program.

For information concerning the Bachelor of Vocational Education, see Page 308.

Health education requirement (Full-time Credential):

1. *One of the following to fulfill the health education requirement:*
 - HSci 332. Health Education in the Elementary School (4)
 - HSci 333. Health Education in the Secondary School (4)
 - HSci 364. Drug and Alcohol Use and Abuse (4)
 - HSci 435. Health and Human Development (4)
 - HSci 440. Family Health Issues for Educators (2)

Note: Beginning Fall, 1990, course offerings in education were subdivided into various related disciplines. These courses may be found in the quarterly class schedule under the following headings:

- Educ—Education (general & core courses)
- EClg—Educational Counseling (listed on page 360)
- EAdm—Educational Administration (listed on page 368)
- EEIB—Elementary Education
- EEnv—Environmental Education (listed on page 363)
- ERdg—Reading Education (listed on page 363)
- EReh—Rehabilitation Counseling (listed on page 398)
- ESec—Secondary Education
- ESpe—Special Education
- EVoc—Vocational Education (listed on page 365)

COURSE OFFERINGS IN EDUCATION (Educ)**Lower Division****200. Introduction to Careers in Education**

Perspectives on public school teaching for potential elementary and secondary teachers. A minimum of 10 hours per quarter of guided field experience at an approved setting is required. (2 units)

201. Introduction to Tutorial Techniques

Introductory course in individual and small group instruction with emphasis on lesson planning, teaching methods and evaluation for tutorial settings. (2 units)

Upper Division**302. Education in American Society**

Politics, organization, structure and philosophical concepts of schooling and education including an analysis of significant problems and issues in American education. Open to students in all majors. (4 units)

332. Psychological Foundations of Education

Learning, motivation, evaluation, and human growth and development as applied to teaching. Requires a field-based component in teaching at an approved setting. Two hours lecture and two hours discussion. Students must enroll concurrently in a lecture section (A, C, E, G, J or L) and a discussion section (B, D, F, H, K or M). *Prerequisites:* Education 200 and Secondary Education 443 and admission to the single subject program; Elementary Education 300 and 331 or Psychology 320 and admission to the multiple subject program.

- A. Lecture—Corequisite: Education 332B. (2 units)
- B. Discussion—Corequisite: Education 332A. (2 units)
- C. Lecture—Corequisite: Education 332D. (2 units)
- D. Discussion—Corequisite: Education 332C. (2 units)
- E. Lecture—Corequisite: Education 332F. (2 units)
- F. Discussion—Corequisite: Education 332E. (2 units)
- G. Lecture—Corequisite: Education 332H. (2 units)
- H. Discussion—Corequisite: Education 332G. (2 units)
- J. Lecture—Corequisite: Education 332K. (2 units)
- K. Discussion—Corequisite: Education 332J. (2 units)
- L. Lecture—Corequisite: Education 332M. (2 units)
- M. Discussion—Corequisite: Education 332L. (2 units)

495. Expository Writing for Education

Writing related to education including documented research reports, evaluations, and analytical papers. Revision and rewriting will be required. Course fulfills the upper-division writing requirement. May not be counted for fulfilling major requirements for any degree program offered by the School of Education. No more than one of the expository writing courses (Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Students who have received a grade of no credit in any combination of the expository writing courses two or more times must meet with the 495 coordinator or a designee to design a developmental writing plan as a condition for enrolling for a third quarter. All students must obtain junior status at the time of registration or the course requested will be cancelled.

Graded A, B, C/no credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (4 units)

537. Introduction to Computer Technology in Education

Operations, terminology and components. Implications for a democratic society, impact on quality of life including economic, moral, legal and ethical. Hands-on use of computers for word processing. One hour of lecture and two hours of laboratory. No programming involved. No previous computer experience required. May not be taken for credit by students who have received credit for Computer Science 127. Conforms with state regulations to partially meet computer education requirements for single and multiple subject credentials. (2 units)

542. Seminar in Education

Intensive study of topics and problems in education. May be repeated for credit as subject matter changes and with consent of instructor. *Prerequisite: graduate standing or consent of instructor.* (Credit to be arranged: 1 to 4 units)

543. Individualized Instruction

An individualized course on techniques and procedures for constructing materials, tracking students, classroom management, learning centers, record keeping and media involvement for individualizing instruction at all levels. (4 units)

544. Construction of Instructional Materials

Various ways to design and produce instructional materials. Emphasis on use of media to meet instructional objectives. Procedures for systematic evaluation of instructional materials. Eight hours of class and activities weekly. (4 units)

546. Computer Based Technology in Education

Introduction to computer applications, computer based technology and teacher utility programs in educational settings to enhance the development of problem solving skills, critical thinking, and creative processes. Conforms with state regulations to partially meet computer education requirements for single and multiple subject credentials. Three hours lecture and two hours laboratory. *Prerequisite: Computer Science 127 or Education 537.* (4 units)

547. Educational Technology

Introduction to instructional systems. Components to include video-disc, satellite down links, computers, brain games and video. Storage and retrieval systems will be included. *Prerequisite: consent of instructor.* (4 units)

548. Seminar in Instructional Design

Theories of instruction; design and production of instructional modules including specification and analysis of objectives, measurement, instructional activities and selection of methods and materials and evaluation techniques. *Prerequisite: consent of instructor.* (4 units)

550. Internship Seminar

Seminar for elementary, secondary and bilingual interns, focusing on knowledge, skills and attitudes required of a first-year teacher. Graded credit/no credit. (Credit to be arranged: 1 to 4 units)

551. Computers and Learning

Design of courseware and use of computers in education as related to learning theory. *Prerequisites: Education 330 or 332, and 546.* (4 units)

552. Computers: Curriculum and Instruction

Methodology course on teaching with computers, evaluation of courseware and methods of integrating computers in the curriculum. Three hours lecture and two hours laboratory. *Prerequisite: Education 546.* (4 units)

553. Developing Computer Based Instructional Materials

Introduction to educational uses of programming languages in the curriculum. Design and development of educational programs using appropriate computer languages. Three hours lecture and two hours laboratory. *Prerequisites: Education 551 and 552.* (4 units)

555. Internship Seminar II

Seminar for elementary, secondary and bilingual interns, focusing on knowledge, skills and attitudes required of a first year teacher during their second quarter. Graded credit/no credit. *Prerequisite: Education 550.* (Credit to be arranged: 1 to 4 units)

556. Internship Seminar III

Seminar for elementary, secondary and bilingual interns, focusing on knowledge, skills and attitudes required of a first year teacher during their third quarter. Graded credit/no credit. *Prerequisite: Education 555.* (Credit to be arranged: 1 to 4 units)

595. Independent Study

Special topics involving library and/or field research. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and school approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 4 units)

COURSE OFFERINGS IN ELEMENTARY / BILINGUAL EDUCATION (EEIB)

Upper Division

300. Principles and Practices in Elementary Education

Ethical, social, legal, philosophical and cross-cultural perspectives in elementary education. This course requires a field-based component including observation and participation in teaching at an approved setting. Meets CTC early field requirement. *Prerequisite: Education 200 or approved school-based experience.* (4 units)

331. Growth and Development of the Young Child

Developmental characteristics of the young child with special emphasis on family, child, pre-school and school interaction. (4 units)

340. Elementary Curriculum and Methods I

Introductory course in elementary curriculum and basic teaching techniques with emphasis on mathematics, classroom management and discipline. Requires a field-based component including observation and participation in teaching at an approved setting.

Prerequisite: admission to the program. Prerequisites or corequisites: Education 332 and Elementary Education 345A or 345B. (4 units)

341. Elementary Curriculum and Methods II

Introductory course in elementary curriculum and basic teaching techniques with emphasis on social science and the humanities. *Prerequisite: admission to student teaching. Corequisite: Elementary Education 410A or 412A. (4 units)*

342. Curriculum and Methods for Early Childhood Education

Principles, methods and materials of instruction appropriate for young children. *Prerequisites: Elementary Education 300 and 331. (4 units)*

343. Elementary Curriculum and Methods III

Introductory course in elementary curriculum and basic teaching techniques with emphasis on science and advanced classroom management. *Prerequisites: admission to student teaching and successful completion of Elementary Education 341 or 344 and 410A or 412A. Corequisite: Elementary Education 410B or 412B. (4 units)*

344. Curriculum and Methods for Bilingual/Cross-Cultural Education

Bilingual/cross-cultural teaching strategies and materials development. Emphasis on teaching language arts in Spanish, ESL and SSL teaching techniques and development of units of study based on multicultural themes and concepts. *Prerequisite: admission to student teaching. Corequisite: Elementary Education 410A or 410B; or 412A or 412B. (4 units)*

345. Reading/Language Arts in the Elementary School

The learning and teaching of the language arts including theories, methods, classroom organization and assessment in reading, writing, speaking and listening. Includes a field-based component including observation and participation in teaching at an approved setting.

Prerequisite: admission to the program.

- A. Multiple Subject (6 units)
- B. Bilingual (6 units)

410. Elementary Student Teaching

Teaching in the public schools. Graded credit/no credit.

- A. Must be taken concurrently with Elementary Education 341 or 344. *Prerequisites: Education 332, Elementary Education 340; 345A or 345B and admission to student teaching. (10 units)*
- B. Must be taken concurrently with Elementary Education 343. *Prerequisites: Elementary Education 410A; 341 or 344. (10 units)*
- C. *Prerequisites: Elementary Education 410A; 410B; 341 or 344; 343 and consent of department chair. (10 units)*

412. Supervised Intern Teaching in Multiple Subject

Full-time teaching under the intern credential in elementary school. Graded credit/no credit.

- A. *Prerequisite: consent of program coordinator. (10 units)*

- B. *Prerequisite: satisfactory completion of 412A and consent of program coordinator. (10 units)*
- C. *Prerequisite: satisfactory completion of 412B and consent of program coordinator. (10 units)*

536. Teaching in a Multicultural Society

Cultural democracy and the quest for equal educational opportunity. Methods and teaching techniques for teaching in a multicultural setting. Developing cultural awareness of teachers to assist them in relating to and motivating culturally different students. (4 units)

541. Problems in Elementary Curriculum

Advanced study of some phase of the elementary school curriculum. May be repeated for credit as subject matter changes and with consent of instructor. *Prerequisite: Graduate standing or consent of instructor. (Credit to be arranged: 1 to 4 units)*

545. Teaching Science in Elementary School

Intensive study of teaching science in elementary school. Exploration, analysis, interpretation and implementation of science process teaching. Intended for experienced teachers. *Prerequisite: consent of instructor. (4 units)*

577. Mathematics Clinic

Administration of diagnostic instruments and assessment procedures to elementary school students, followed by prescription and initiation of remedial measures to strengthen the mathematics areas. *Prerequisites: Mathematics 301 and four additional quarter units in Mathematics. (4 units)*

580. Advanced Teaching Strategies

Advanced teaching strategies, self and peer coaching for the improvement of teaching using a variety of clinical supervision models. (4 units)

COURSE OFFERINGS IN SECONDARY EDUCATION (ESec)

Upper Division

421. Secondary Student Teaching

Full-time teaching in the junior or senior high school. Graded credit/no credit.

- A. Must be taken concurrently with Secondary Education 441. *Prerequisite: consent of program coordinator. (10 units)*
- B. Must be taken concurrently with Secondary Education 480. *Prerequisites: satisfactory completion of 421A and consent of program coordinator. (10 units)*
- C. *Prerequisites: satisfactory completion of 421A and 421B and consent of coordinator. (10 units)*

422. Supervised Intern Teaching in Single Subject

Full-time teaching under the intern credential in junior or senior high school. Graded credit/no credit.

- A. *Prerequisite: consent of program coordinator. (10 units)*
- B. *Prerequisites: satisfactory completion of 422A and consent of program coordinator. (10 units)*
- C. *Prerequisites: satisfactory completion of 422B and consent of program coordinator. (10 units)*

440. Secondary School Curriculum and Instruction I

Introductory course in secondary curriculum and teaching methods with emphasis on instructional planning, strategies and evaluation, technology as applied to teaching, and classroom management. A minimum of 10 hours per quarter of classroom observations in an approved setting is required.

Prerequisites: Education 200, Secondary Education 443 or Psychology 328 and admission to the program for the Single Subject Credential. (4 units)

441. Secondary School Curriculum and Instruction II

Introductory course in secondary curriculum and teaching methods with emphasis on subject area materials, mediated materials, secondary curriculum and legal aspects of teaching as a profession. *Prerequisites: consent of department chair and admission to the Single Subject Credential program.*

- A. Art. May be taken prior to or concurrently with Secondary Education 421A. (4 units)
- E. English. *Corequisite: Secondary Education 421A or 421B.* (4 units)
- F. Foreign Language. May be taken prior to or concurrently with Secondary Education 421A. (4 units)
- H. Music. May be taken prior to or concurrently with Secondary Education 421A. (4 units)
- L. Life and Physical Sciences. (4 units)
- M. Mathematics. *Corequisite: Secondary Education 421A or 421B.* (4 units)
- O. Other. *Corequisite: Secondary Education 421A or 421B.* (4 units)
- P. Physical Education. May be taken prior to or concurrently with Secondary Education 421A. (4 units)
- S. Social Sciences. *Corequisite: Secondary Education 421A or 421B.* (4 units)

443. Curriculum Development for Adolescents

Curricular approaches appropriate to pupils in the adolescent age group will be examined in relation to current research related to social, physical, emotional, psychological and academic development of the adolescent. (4 units)

445. Teaching Reading and Writing in Secondary School Subjects

Methods of diagnosing and teaching specific reading and writing skills in secondary school subjects. A minimum of 24 hours per quarter of field experiences in an approved setting is required. *Prerequisites: Education 200; Secondary Education 443 or Psychology 328 and admission to the Single Subject Credential program.* (4 units)

480. Student Teaching Seminar

A seminar to accompany second quarter secondary student teaching; discussion of issues in curriculum planning, instructional implementation, student evaluation, discipline, and classroom management. Graded credit/no credit. To be taken concurrently with Secondary Education 421B. *Prerequisite: consent of advisor or department chair.* (2 units)

515. Issues and Trends in Secondary Education

Examination of issues and trends in secondary education. May be repeated with consent of advisor. *Prerequisite: consent of advisor.* (2 units)

516. Models of Teaching and Advanced Teaching Methodology

Demonstration and discussion on various models of teaching and advanced teaching methods relevant to secondary school classrooms. (4 units)

517. Middle School Curriculum and Instruction

Examination of middle school curriculum design and instructional practices. (4 units)

521. Instructional Strategies and Approaches to Middle Grade

Instructional methods, techniques and evaluation procedures especially appropriate for middle schools. (4 units)

522. Practicum in Middle Grade Education

Practicum for middle grade philosophies, objectives, and functions. *Prerequisite: Secondary Education 443, 517 and 521.* (4 units)

560. Study Skills for Secondary School

Programs, methods and materials for teaching study skills to exceptional junior and senior high school students. Study strategies include: note taking, organization, memory devices, study contracts and preparation for examinations. (4 units)

COURSE OFFERINGS IN SPECIAL EDUCATION (ESpe)

Upper Division**523. Mainstreaming Handicapped Individuals in the Elementary Classroom**

Introduction to the adaptation of curriculum, methods and materials necessary for accommodating exceptional individuals in the regular elementary classroom. (2 units)

530. Psychology and Education of Exceptional Individuals

Characteristics and educational implications of physical, intellectual, social and emotional deviations among exceptional individuals. Ethical and legal aspects of special education. Observations in educational settings. (4 units)

532. Introduction to Teaching Individuals with Exceptional Needs

Learning characteristics of individuals with handicaps related to educational procedures and intervention strategies. Study and observation of education and intervention theory and practices. *Prerequisite: Special Education 530 or consent of instructor.* (4 units)

535. Counseling Exceptional Individuals and Their Families

Procedures in establishing rapport with handicapped individuals, methods of behavior control, counseling techniques and development of programs for parents of exceptional individuals. *Prerequisites: Special Education 530, 532 or consent of instructor.* (4 units)

538. Introduction to Teaching the Gifted and Talented

Definition, characteristics and development of the gifted and talented individual. Identification procedures. Current legislation and educational practices. Eight hours of class and activities weekly. *Prerequisite: consent of instructor.* (4 units)

539. Programs for Teaching the Gifted and Talented

Development of school programs for gifted and talented: identification, objectives, scheduling, curriculum, materials and program assessment. *Prerequisites: Special Education 538 and consent of instructor.* (4 units)

540. Strategies for Remedial Teaching

Methods of diagnosing needs, teaching basic subjects; organizing curriculum, and controlling behavior of low achieving students in the regular elementary classroom. (4 units)

ENGLISH

Department of English

Pfau Library Building, Room 236B
880-5824

Bachelor of Arts

English
Literature Track
Creative Writing Track

Teaching Credential Program

English

Minor

English

Master of Arts

English Composition
Teaching English as a Second Language
(Degree requirements can be found on Page 370.)
Secondary Education—English Option
(Degree requirements can be found on Page 346.)

Certificate Programs

Creative Writing
Professional Writing

The English Department at California State University, San Bernardino is, like most college or university English departments, devoted mainly to the study of literature. The literature courses are arranged in different ways; some analyze a specific genre (poetry, fiction, drama); some treat a particular period (the sixteenth century, the romantic period); some deal with an individual author, area or problem (Shakespeare, modern American poetry, Black literature, fantasy).

The department offers additional courses in the history and structure of the language and in advanced composition. Courses in creative writing give students the opportunity to write poetry or fiction under the direction of an experienced writer.

The English Department also sponsors the *Pacific Review*, a literary journal mingling professional and student contributions, and work on the *Pacific Review* staff provides excellent training for students in editorial work.

The English Department encourages students to participate in the California State University's International Programs since language and culture are understood best in a global context. For further information, see Page 21.

B.A. IN ENGLISH

Requirements (68 units)

Requirements for the B.A. in English:

Lower-division requirements (12 units)

1. Eng 230. English Literature I (4)
2. Eng 231. English Literature II (4)
3. Eng 232. English Literature III (4)

Upper-division requirements (56 units)

1. Eng 311. The English Language (4)
2. Eng 330. American Literature I (4)
3. Eng 331. American Literature II (4)
4. Eng 332. American Literature III (4)
5. *Eight units chosen from:*
 - Eng 301. Analysis of Poetry (4)
 - Eng 302. Analysis of Drama (4)
 - Eng 303. Analysis of Prose Fiction (4)
6. *Four units chosen from:*
 - Eng 475. Shakespeare I (4)
 - Eng 476. Shakespeare II (4)
7. *Twenty-eight units chosen from one of the following tracks (A or B):*
 - A. Literature Track
To be recommended for the teaching credential, students must complete the Literature track and are expected to include the courses specified under the Teaching Credential Program requirements below.
 1. *Four units chosen from:*
 - Eng 314. American Indian Literature (4)
 - Eng 322. Studies in Literary Themes, Genres, or Authors (4)
 - Eng 335. Studies in the Novel (4)
 - Eng 336. Women Writers (4)
 - Eng 339. Black Literature (4)
 - Eng 385. Introduction to Literary Criticism (4)
 2. *Four units chosen from:*
 - Eng 401. English Literature of the Middle Ages (4)
 - Eng 403. English Literature of the Renaissance (4)
 - Eng 406. Seventeenth Century Literature (4)
 - Eng 409. English Literature of the Restoration and Eighteenth Century (4)
 - Eng 412. Romantic Prose and Poetry (4)
 - Eng 415. Victorian Literature (4)
 - Eng 442. Modern Poetry (4)
 - Eng 446. Modern Fiction (4)
 3. Eng 515. Senior Seminar in Literature (4)
 4. *Sixteen units of upper-division electives, eight of which may be in foreign literature or foreign literature in translation.*

B. Creative Writing Track

1. Eng 317. Introduction to Creative Writing: Poetry (4)
2. Eng 318. Introduction to Creative Writing: Fiction (4)
3. Eng 513. Advanced Creative Writing (4)
4. Eng 522. Independent Study in Writing (4)
5. *Twelve units of upper-division electives, eight of which may be in foreign literature or foreign literature in translation.*

Note: It is strongly recommended that students majoring in English take English 495 to satisfy the upper-division writing requirements of the university; however, English 495 is not applicable toward the English major.

Students planning to do graduate work in English literature are strongly advised to acquire a reading knowledge of at least one foreign language.

TEACHING CREDENTIAL PROGRAM

In order to be recommended for the teaching credential, students must complete the requirements for the Literature track in English. Students are expected to include the following as part of the 16 units of electives in the Literature track:

1. *Four units chosen from:*
 - Eng 420. Grammar and Linguistics (4)
 - Eng 422. History of the English Language (4)
2. *Four units chosen from:*
 - Eng 510. English in the Secondary Classroom (4)
 - Hum 499C. Methods and Materials in the Teaching of Humanities: English (4)

MINOR IN ENGLISH

Requirements (32 units)

Requirements for a minor in English:

1. Eng 311. The English Language (4)
2. *Four units chosen from:*
 - Eng 301. Analysis of Poetry (4)
 - Eng 302. Analysis of Drama (4)
 - Eng 303. Analysis of Prose Fiction (4)
3. *Eight units chosen from:*
 - Eng 230. English Literature I (4)
 - Eng 231. English Literature II (4)
 - Eng 232. English Literature III (4)
 - Eng 330. American Literature I (4)
 - Eng 331. American Literature II (4)

- Eng 332. American Literature III (4)
- 4. *Four units chosen from:*
 - Eng 475. Shakespeare I (4)
 - Eng 476. Shakespeare II (4)
- 5. *Four units chosen from:*
 - Eng 401. English Literature of the Middle Ages (4)
 - Eng 403. English Literature of the Renaissance (4)
 - Eng 406. Seventeenth Century Literature (4)
 - Eng 409. English Literature of the Restoration and Eighteenth Century (4)
 - Eng 412. Romantic Prose and Poetry (4)
 - Eng 415. Victorian Literature (4)
 - Eng 442. Modern Poetry (4)
 - Eng 446. Modern Fiction (4)
- 6. *Four units chosen from:*
 - Eng 314. American Indian Literature (4)
 - Eng 322. Studies in Literary Themes, Genres, or Authors (4)
 - Eng 335. Studies in the Novel (4)
 - Eng 336. Women Writers (4)
 - Eng 339. Black Literature (4)
 - Eng 385. Introduction to Literary Criticism (4)
- 7. *Four additional units chosen from any upper-division English course except:*
 - Eng 300. English Workshop
 - Eng 399. Community Service Project
 - Eng 495. Expository Writing

CERTIFICATE PROGRAMS

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Creative Writing

Certificate Requirements (32 units)

1. Eng 317. Introduction to Creative Writing: Poetry (4)
2. Eng 318. Introduction to Creative Writing: Fiction (4)
3. Eng 495. Expository Writing (4)
4. Eng 513. Advanced Creative Writing (4)
5. *Four units chosen from:*
 - Eng 301. Analysis of Poetry (4)
 - Eng 302. Analysis of Drama (4)
 - Eng 303. Analysis of Prose Fiction (4)

6. Four units chosen from any 400-level literature course.
7. *Eight units from any upper-division English course to include at least four units chosen from:*
 - Eng 522. Independent Study in Writing (4)
 - Eng 621. Approaches to Imaginative Writing (4)

Certificate in Writing: Professional Writing

Certificate Requirements (30 units)

Lower-division requirements (6 units)

1. Comm 242. Writing for Print Media (4)
2. Comm 243A. Communication Practicum: Journalism, Photojournalism and Public Relations (2)

Upper-division requirements (24 units)

1. Eng 311. The English Language (4)
2. Eng 495. Expository Writing (4)
3. *Eight units chosen from:*
 - Comm 342. Newspaper Editing and Makeup (4)
 - Comm 442. Editing and Design for Public Relations (4)
 - Eng 631. Approaches to Professional Writing (4)
4. *Eight units chosen from Groups A or B below:*

Group A:

 1. *Four units chosen from:*
 - Eng 420. Grammar and Linguistics (4)
 - Eng 422. History of the English Language (4)
 - Phil 484. Philosophy of Language (4)
 2. *Four units chosen from:*
 - Comm 311. Business and Professional Communication (4)
 - Comm 342. Newspaper Editing and Makeup (if not taken as a required course) (4)
 - Eng 522. Independent Study in Writing (4)
 - Eng 565A. Special Studies in Writing (with appropriate subject) (2)
 - Eng 565B. Special Studies in Writing (with appropriate subject) (2)
 - Eng 631. Approaches to Professional Writing (if not taken as a required course) (4)

Group B:

 1. *Eight units chosen from:*
 - Comm 311. Business and Professional Communication (4)
 - Comm 342. Newspaper Editing and Makeup (if not taken as a required course) (4)
 - Eng 522. Independent Study in Writing (4)

- Eng 565A. Special Studies in Writing (with appropriate subject) (2)
- Eng 565B. Special Studies in Writing (with appropriate subject) (2)
- Eng 631. Approaches to Professional Writing (if not taken as a required course) (4)

COURSE OFFERINGS IN ENGLISH (Eng)

Lower Division

85. Basic English

A full-year course designed specifically for students who score at or within the lowest quartile of the English Placement Test. Emphasis on developing fundamental skills in writing and conceptualizing. English 85 does not apply toward baccalaureate credit. Students achieving the requisite grade on a common examination at the end of the quarter after taking English 85A or 85B or 85C may enroll in English 101. Graded credit/no credit.

- A. First Quarter (4 units)
- B. Second Quarter (4 units)
- C. Third Quarter (4 units)

95. Intensive English

Intensive work in writing fundamentals. Graded A, B, C/No Credit. May not be taken for credit by students who have received credit for English 101. Three hours lecture and one hour writing laboratory. English 95 does not apply toward baccalaureate credit. *Prerequisite: open only to students who score above the lowest quartile on the English placement test.* (4 units)

101. Freshman Composition

Analytical study of the language and structure of prose to help students develop a clear, mature and flexible expository style. Frequent writing required. Graded A, B, C/No Credit. *Prerequisite: essay score of seven or greater and total score of 150 or greater on the English placement test, or completion of the test and at least a grade of "C" in English 95.* (4 units)

110. World Literature I

Readings in Oriental and continental European literature to the Renaissance (in English translation). *Prerequisite: English 101 or equivalent.* (4 units)

111. World Literature II

Readings in Oriental and continental European literature from the Renaissance to the contemporary period (in English translation). *Prerequisite: English 101 or equivalent.* (4 units)

140. Major American Authors

Readings in major figures in American literature from the Puritans to the present. (4 units)

160. World Drama

Selected readings of dramatic literature (in translation) from the 5th century B.C. to the 19th century. (Also offered as Theatre Arts 160. Students may not receive credit for both.) *Prerequisite: English 101 or equivalent.* (4 units)

170. Studies in Literature

Analysis of the forms and content of literature. Emphasis is on the methodology of reading prose fiction, drama and poetry. *Prerequisite: English 101 or equivalent.* (4 units)

230. English Literature I

Readings in English literature from the Middle Ages through the Renaissance. May not be taken for credit by students who have received credit for English 120. (4 units)

231. English Literature II

Readings in English literature from the Restoration through the eighteenth century. May not be taken for credit by students who have received credit for English 121. (4 units)

232. English Literature III

Readings in English literature from the Romantics through the present. May not be taken for credit by students who have received credit for English 121. (4 units)

281. Literature of Rhetorical Discourse

Introduction to classical and contemporary approaches to rhetorical analysis and criticism. Course focuses on understanding literary composition and oratory as public discourse. (Also offered as Communication 281. Students may not receive credit for both.) *Prerequisite: English 101 or equivalent.* (4 units)

Upper Division**300. English Workshop**

An intermediate-level refresher course in writing designed to prepare students for advanced work in composition. Concentration on specific techniques. May not be counted toward fulfilling requirements in the English major and does not fulfill the upper-division writing requirement. Not open to students who have already completed Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495 or Social Sciences 495. Graded A, B, C/No Credit. *Prerequisite: English 101.* (4 units)

301. Analysis of Poetry

Literary analysis of selected lyric poems with special emphasis on how to write about literature. *Prerequisite: English 101.* (4 units)

302. Analysis of Drama

Analysis of selected plays. Written analysis required. (Also offered as Theatre Arts 302. Students may not receive credit for both.) *Prerequisite: English 101.* (4 units)

303. Analysis of Prose Fiction

Literary analysis of selected pieces of narrative prose with special emphasis on how to write about literature. *Prerequisite: English 101.* (4 units)

Students are strongly advised to take one or more of the analysis courses (English 301, 302, 303) before taking other upper-division courses.

311. The English Language

Introduction to the structure and development of the English language. (4 units)

314. American Indian Literature

A consideration of the oral traditions and significant literary works of a variety of American Indian cultures in their changing cultural contexts. (4 units)

317. Introduction to Creative Writing: Poetry

Workshop in writing poetry, discussion of student writing and exemplary works by established poets. *Prerequisite: English 101 or consent of instructor.* (4 units)

318. Introduction to Creative Writing: Fiction

Workshop in writing fiction, discussion of student writing and exemplary works by established authors. *Prerequisite: English 101 or consent of instructor.* (4 units)

320. Children's Literature

History and development of children's literature; emphasis on developing skills in analyzing, evaluating and selecting books for children. (4 units)

322. Studies in Literary Themes, Genres, or Authors

Intensive study in selected themes, genres, or of authors. May be repeated for credit as topics change. May be taken for credit by students who have received credit for English 315; however credit may not be received twice for the same topic. (4 units)

330. American Literature I

Readings in American literature from the Colonial period through the early American Romantics. May not be taken for credit by students who have received credit for English 430. (4 units)

331. American Literature II

Readings in American literature from the Romantics through the American Renaissance. May not be taken for credit by students who have received credit for English 432. (4 units)

332. American Literature III

Readings in American literature from the Gilded Age to the present. May not be taken for credit by students who have received credit for English 436. (4 units)

333. Myth and Epic

Myths and epics of folklore and of classical literature, emphasizing relationship to later Western literature. (4 units)

335. Studies in the Novel

Studies in the novel with emphasis on close reading of specific texts. (4 units)

336. Women Writers

Literary analysis of selected works by women writers, with special emphasis on historical and contemporary issues in women's lives. (Also offered as Women's Studies 336. Students may not receive credit for both.) (4 units)

339. Black Literature

Literature by and about Black people. Emphasis on the contribution of Black writers to the American cultural heritage. May not be taken for credit by students who have received credit for English 439. (4 units)

347. Playwrighting

Fundamentals of play development, to include plot, character, structure, and theme, culminating in individual performable scripts. (Also offered as Theater Arts 347.)

Students may not receive credit for both.) *Prerequisite: English or Theater Arts 302, or consent of instructor.* (4 units)

385. Introduction to Literary Criticism

The major issues in literary criticism considered in historical perspective. (4 units)

399. Community Service Project

Credit for applying previously learned skills in the area of English to academically related tasks in such agencies as governmental, social services and educational institutions. May be repeated for a total of two units. Graded credit/no credit. *Prerequisite: departmental approval of a written application submitted in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 or 2 units)

401. English Literature of the Middle Ages

Lyric, drama, prose and verse narrative from the beginnings of English literature through Malory. (4 units)

403. English Literature of the Renaissance

Poetry, prose and drama of the 16th century. (4 units)

406. Seventeenth Century Literature

English prose and poetry from Bacon through Milton. (4 units)

409. English Literature of the Restoration and Eighteenth Century

Emphasis on Dryden, Pope, Swift and Johnson. (4 units)

412. Romantic Prose and Poetry

Major English romantics such as Blake, Wordsworth, Coleridge, Keats, Shelley and Byron. (4 units)

415. Victorian Literature

Major writers of Victorian England. (4 units)

420. Grammar and Linguistics

An introduction to the attitudes, theories and techniques of modern grammar and linguistic science. May not be taken for credit by students who have received credit for English 500. *Prerequisite: English 311.* (4 units)

422. History of the English Language

Development of the English language from the beginning to the present. May not be taken for credit by students who have received credit for English 505. *Prerequisite: English 311.* (4 units)

442. Modern Poetry

Modern and contemporary poetry. (4 units)

446. Modern Fiction

Modern and contemporary fiction. (4 units)

450. Classical Drama

Development of comedy and tragedy in Greece and Rome. (Also offered as Theatre Arts 450. Students may not receive credit for both.) (4 units)

455. Modern Drama I

European, English and American realism. (Also offered as Theatre Arts 455. Students may not receive credit for both.) (4 units)

456. Modern Drama II

European, English and American anti-realism. (Also offered as Theatre Arts 456. Students may not receive credit for both.) (4 units)

475. Shakespeare I

Comedies and histories. (Also offered as Theatre Arts 475. Students may not receive credit for both.) (4 units)

476. Shakespeare II

Tragedies and romances. (Also offered as Theatre Arts 476. Students may not receive credit for both.) (4 units)

495. Expository Writing

Advanced expository writing including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. No more than one of the Expository Writing courses (Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Students who have received a grade of no credit in any combination of the expository writing courses two or more times must meet with the 495 coordinator or a designee to design a developmental writing plan as a condition for enrolling for a third quarter. All students must obtain junior status at the time of registration or their course request will be cancelled. Graded A, B, C/no credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (4 units)

510. English in the Secondary Classroom

English as a secondary school subject including language, literature and composition. Special emphasis on problems of improving and assessing student writing. *Prerequisites: English 311, 495 and at least two courses from English 301, 302, 303.* (4 units)

513. Advanced Creative Writing

Intensive writing workshop in one genre: poetry, fiction, autobiography or others. Emphasis will change from quarter to quarter. May be repeated for credit as subject matter changes. *Prerequisite: English 317 or English 318 or consent of instructor.* (4 units)

515. Senior Seminar in Literature

Advanced study of a selected literary topic or problem. May be repeated for credit as topics change. *Prerequisites: senior standing and completion of at least two analysis classes (English 301, 302 or 303), and at least two additional upper-division courses in English.* (4 units)

522. Independent Study in Writing

Projects in advanced writing: fiction, non-fiction, poetry or drama. Outlines of the projects must be approved during the junior year and the completed projects approved at least one quarter before graduation. A total of eight units may apply to the English major or toward graduation. *Prerequisites: English 513 and departmental approval.* (4 units)

523. English Syntax

A linguistic approach to the analysis of modern English sentences and their component parts. Emphasis is placed on practical experience in analyzing structures in context. *Prerequisites: English 311 and 420.* (4 units)

524. Sociolinguistics

An examination of language within social and cultural contexts, including ethnic, social and regional dialect variations in the United States. *Prerequisites: English 311 and 420.* (4 units)

525. Seminar in Criticism

Advanced study in special topics in literary criticism. May be repeated for credit as topics change. (4 units)

530. Methods of Tutoring Writing

Study of the theory, principles and methods of tutoring students who need specific practice in writing. Those completing this course with a grade of "B" or better are eligible to participate in tutorial writing services on campus. Students in this class are expected to be proficient writers. May be repeated once for credit.

Prerequisites: English 101 and consent of instructor.
(2 units)

565. Special Studies in Writing

Studies in particular topics in writing, such as assessment, learning theory and research on the teaching of writing.

Prerequisite: consent of instructor.

A. (2 units)

B. (2 units)

575. Internship in English

Supervised learning experience related to such activities as writing, research and editing in a work setting. A total of six units of English 575 may be applied toward graduation. Graded credit/no credit. *Prerequisites: junior standing with at least 16 units of course work in English on this campus with an overall grade-point average of 3.0 or better; consent of instructor; and departmental approval of a written proposal submitted in advance of the quarter in which the course is to be taken.* (2 units)

595. Special Studies in Literature

Independent studies of selected literary figures or study in a special area of literary theory or history. May be repeated for a maximum of 8 units of credit toward the B.A. in English and toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor, and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

ENVIRONMENTAL STUDIES

Department of Geography

Faculty Office Building, Room 249
880-5519

Bachelor of Arts

Environmental Studies - Track A

Environmental Studies - Track B

To accomplish its principal objective of promoting an understanding of the interaction of human beings with their environment, this interdisciplinary degree program includes courses primarily from the natural sciences and social sciences.

Major requirements from the natural sciences develop fundamental principles about the composition and functioning of the earth's ecosystems, principles deemed essential to a sound working knowledge of the environment. Course offerings from the social sciences assess the impact of human beings upon the environment and the possibility of creating different environments.

The program is designed for students who desire either to focus on a study of the environment as part of a broader liberal arts curriculum or to prepare for an environmentally related career or graduate school. Professional opportunities for graduates include a wide range of positions in public agencies responsible for developing and enforcing environmental controls, and in business, industry and nonprofit organizations which need qualified individuals to communicate environmental information and to assist in compliance with environmental regulations. Additional opportunities are available in conjunction with other programs of study, such as environmental law, environmental health, education and public administration.

B.A. IN ENVIRONMENTAL STUDIES - TRACK A

Requirements (74 units)

Requirements for the B.A. in Environmental Studies—Track A:

Lower-division requirements (24 units)

1. Biol 202. Biology of Populations (5)
2. Chem 205. Fundamentals of Chemistry I: General Chemistry (5)
3. *A minimum of fourteen units chosen from:*
 - A. Anth 100. Introduction to Anthropology: Human Evolution (4)
 - B. Biol 200. Biology of the Cell (5)
 - C. Biol 201. Biology of Organisms (5)

- D. Chem 206. Fundamentals of Chemistry II: Organic Chemistry (5)
- E. Geog 103. Physical Geography (5)
- F. Geol 101. Physical Geology (5)
- G. HSci 120. Health and Society: An Ecological Approach (5)
- H. Phys 100. Physics in the Modern World (5)

or

- Phys 121. Basic Concepts of Physics I (5)

Upper-division requirements (24 units)

1. Econ 360. Economics of the Environment (4)
or
HSci 401. Land Use: Health Aspects (4)
2. Geog 306. Remote Sensing of Environment (4)
3. Geog 350. Conservation and Natural Resources (4)
4. Geog 360. Climate and Vegetation (4)
5. Geog 480. Geomorphology (4)
6. Math 305. Statistics: Hypothesis Testing and Estimation (4)

or

- SSci 215. Statistics for the Social Sciences (4)

Electives (a minimum of 26 units)

1. *A minimum of twenty-six units chosen from Groups 1 and 2 below: (Students must take at least two courses from each of the following groups provided that none have been used elsewhere to meet requirements of this major.)*

Group 1:

- A. Biol 220. Principles of Microbiology (6)
- B. Biol 319. Local Flora (6)
- C. Biol 370. Symbiosis (4)
- D. Biol 450. Ecology (6)
- E. Biol 460. Biogeography (4)

or

- Geog 460. Biogeography (4)
- F. Biol 464. Plant Taxonomy (6)
- G. HSci 352. Environmental Health I (4)
- H. HSci 353. Environmental Health II (5)
- I. HSci 458. Vector and Zoonotic Disease Control (4)

Group 2:

- A. Anth 475. Cultural Ecology (4)
- B. Econ 360. Economics of the Environment (4)
- C. Geog 301. Cartography (4)
- D. Geog 304. Field Methods in Geography (4)
- E. Geog 380. Population Geography (4)
- F. Geog 415. Urban Planning and Land Development (4)
- G. Geog 470. Hydrology and Water Resources (4)

- H. HSci 372. Environmental Administration and Environmental Impact Reporting (4)
- I. HSci 401. Land Use: Health Aspects (4)
- J. PSci 342. The Politics of Environment (4)

Optional courses not a part of the major:

Students are encouraged to continue their studies of the environment through the use of independent study courses and approved internships.

B.A. IN ENVIRONMENTAL STUDIES - TRACK B

Requirements (79 units)

Requirements for the B.A. in Environmental Studies—Track B:

Lower-division requirements (37 units)

- 1. Biol 200. Biology of the Cell (5)
- 2. Biol 201. Biology of Organisms (5)
- 3. Biol 202. Biology of Populations (5)
- 4. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
- 5. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
- 6. Chem 245. Modern Quantitative Analysis (5)
- 7. Phys 100. Physics in the Modern World (5)
or
Phys 121. Basic Concepts of Physics I (5)

Upper-division requirements (24 units)

- 1. Econ 360. Economics of the Environment (4)
or
HSci 401. Land Use: Health Aspects (4)
- 2. Geog 306. Remote Sensing of Environment (4)
- 3. Geog 350. Conservation and Natural Resources (4)
- 4. Geog 360. Climate and Vegetation (4)
- 5. Geog 480. Geomorphology (4)
- 6. Math 305. Statistics: Hypothesis Testing and Estimation (4)

Electives (a minimum of 18 units)

- 1. *One of the following Groups A or B below:*
Group A
 - 1. Biol 370. Symbiosis (4)
 - 2. Biol 450. Ecology (6)
 - 3. *A minimum of eight units chosen from:*
 - A. Biol 319. Local Flora (6)
 - B. Biol 460. Biogeography (4)
or
Geog 460. Biogeography (4)
 - C. Biol 464. Plant Taxonomy (6)
 - D. Chem 221. Organic Chemistry I (4)
 - E. Chem 222. Organic Chemistry II (4)
 - F. Geol 101. Physical Geology (5)
 - G. HSci 352. Environmental Health I (4)

- H. HSci 353. Environmental Health II (5)
Group B
 - 1. Chem 221. Organic Chemistry I (4)
 - 2. Chem 222. Organic Chemistry II (4)
 - 3. *A minimum of ten units chosen from:*
 - A. Biol 319. Local Flora (6)
 - B. Biol 370. Symbiosis (4)
 - C. Biol 450. Ecology (6)
 - D. Biol 460. Biogeography (4)
or
Geog 460. Biogeography (4)
 - E. Biol 464. Plant Taxonomy (6)
 - F. Geol 101. Physical Geology (5)
 - G. HSci 352. Environmental Health I (4)
 - H. HSci 353. Environmental Health II (5)

Optional courses not a part of the major:

Students are encouraged to continue their studies of the environment through the use of independent study courses and approved internships.

HONORS IN THE MAJOR

Students majoring in environmental studies are eligible to receive honors in environmental studies at graduation if the following conditions are met:

- 1. At least one-half of the course work required by the major is completed at this university;
- 2. At least a 3.5 GPA in the major, both at this university and overall;
- 3. An overall undergraduate GPA of 3.0 or better;
- 4. Completion of a senior project approved in advance by the program coordinator.

Students interested in receiving this recognition must initiate the process by making a formal application with the Geography Department secretary.

ETHNIC STUDIES

School of Social and Behavioral Sciences

Faculty Office Building, Room 175
880-5500

Minor

Ethnic Studies

Ethnic Studies is an interdisciplinary area study that uses material from several disciplines to explore ethnic issues and experiences. Ethnic studies scholarship and teaching are intended to promote an understanding of ethnicity, differentiation, and stratification in human societies.

MINOR IN ETHNIC STUDIES

Requirements (40 units)

Requirements for a minor in Ethnic Studies:

To earn the minor in ethnic studies, a student must complete a course of study that includes 10 required courses.

1. ES 100. Ethnicity and Race in America (4)
2. ES 300. Research Methods in Ethnic Studies (4)
3. In consultation with an advisor from the Ethnic Studies Program Committee, thirty-two units chosen from:
 - Anth 325. Human Variation and the Concept of Race (4)
 - Anth 351. Indians of North America (4)
 - Anth 352. Indians of the Southwest (4)
 - Anth 354. Cultures of Mexico and Central America (4)
 - Anth 357. African Societies (4)
 - Art 328. Mexican Art (4)
 - Art 329. Chicano Art (4)
 - Comm 472. Hispanic Media (4)
 - Econ 352. The Economics of Poverty and Discrimination (4)
 - Econ 450. Economic Development (4)
 - EEIB 536. Teaching in a Multicultural Society (4)
 - Eng 314. American Indian Literature (4)
 - Eng 339. Black Literature (4)
 - ES 392. Topics in Ethnic Studies (2)
 - ES 394. Topics in Ethnic Studies (4)
 - ES 595. Independent Study (1-4)
 - FLan 320. Masterpieces of Literature (4) (When the topic covers Ethnic Studies)
 - Hist 331. Black History I: The African Experience (4)

- Hist 334. Black History II: The American Experience (4)
- Hist 390. History of Mexico (4)
- Hist 391. Chicano History (4)
- Hist 565. Ethnic Minorities in American History (4)
- Hist 566. Ethnic Minorities in the American Southwest: Past and Present (4)
- Hum 360. Cultures of the East (4)
- Hum 460. Cultural Studies (4)
- IS 460. Aspects of Chicano Culture (4)
- Mus 350. Music of Other Cultures (4)
- Mus 351. Latin American Music (4)
- Mus 352. Afro-American Music (4)
- PSci 306. Developing Political Systems (4)
- PSci 352. Minority Politics (4)
- PSci 480E. International Relations in the Pacific Basin: Philippines (4)
- PSci 480F. International Relations in the Pacific Basin: Japan (4)
- PSci 480G. International Relations in the Pacific Basin: Korea (4)
- PSci 480H. International Relations in the Pacific Basin: Singapore (4)
- PSci 480J. International Relations in the Pacific Basin: Indonesia (4)
- Psyc 340. Prejudice, Race and Racism (4)
- Psyc 345. Cross-Cultural Psychology (4)
- SSci 155. Minority Groups in America (4)
- SSci 300. Nonwestern World (4)
- SSci 316. Race and Racism (4)
- Soc 322. Sociology of the Ghetto (4)
- Soc 336. Black Women and Feminism (4)
- Soc 341. Marriage and Family Among Blacks (4)
- Soc 342. The Chicano Family (4)
- Soc 410. Racial and Cultural Minorities (4)
- Soc 441. Black Social Stratification (4)
- Soc 442. Chicano Social Stratification (4)

COURSE OFFERINGS IN ETHNIC STUDIES (ES)

100. Ethnicity and Race in American

Culture, history and politics, and current problems of ethnic and racial minorities. Major groups included will be Black, Chicano, Asian American, and Native American. (4 units)

300. Research Methods in Ethnic Studies

Development and implementation of research (quantitative or qualitative) that explores in depth one or more facets of ethnic experience. (4 units)

392. Topics in Ethnic Studies

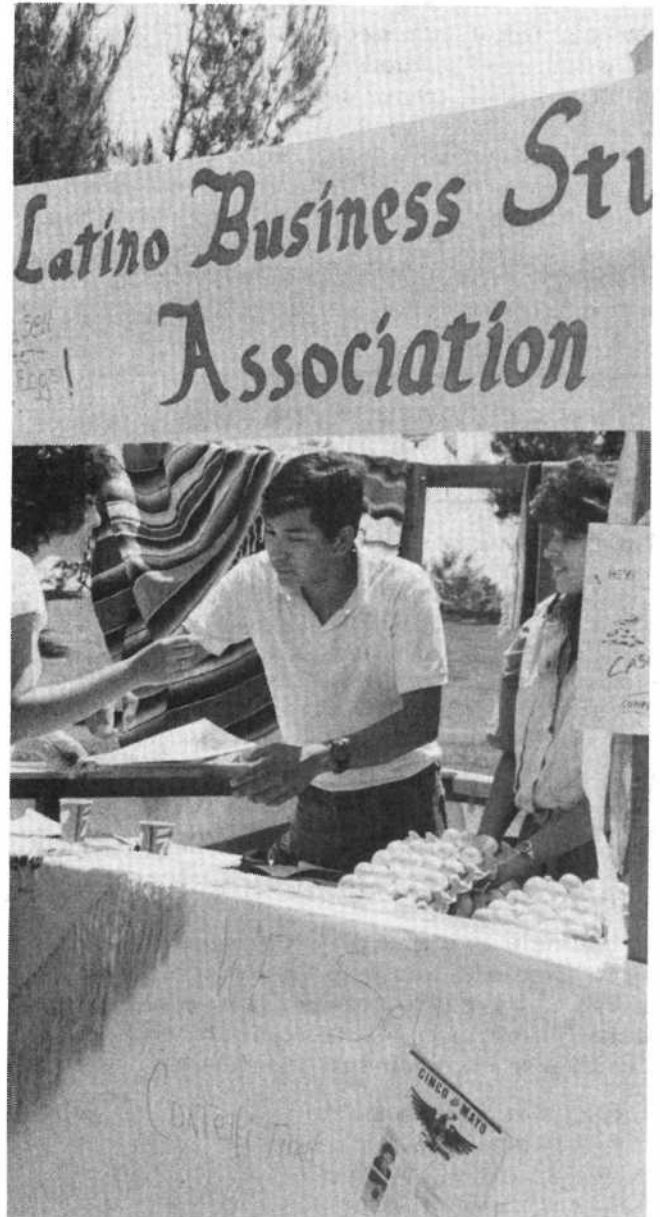
A selected area or issue of ethnic studies. May be repeated for credit as topics change. (2 units)

394. Topics in Ethnic Studies

A selected area or issue of ethnic studies. May be repeated for credit as topics change. (4 units)

595. Independent Study

For students capable of individualized work and in need of advanced or specialized study. May be repeated for credit in the Ethnic Studies minor for a total of no more than eight units. *Prerequisites: consent of instructor and Ethnic Studies Program Committee approval.* (Credit to be arranged: 1 to 4 units)



FINANCE

Department of Accounting and Finance

Temporary Office Building, Room 76
880-5704

The university offers concentrations in finance within the Bachelor of Arts in Administration, the Bachelor of Science in Administration and the Master of Business Administration. A Certificate in Financial Management is also available. The details of these programs are listed under Administration (Page 79). The Master of Business Administration can be found on Page 325. The courses listed below are offered in support of these programs. Further information is available from the Department of Accounting and Finance.

COURSE OFFERINGS IN FINANCE (Fin)

Lower Division

201. Personal Finance

Financial planning and problem-solving for the individual. Development and management of assets and credit, insurance alternatives, investment and savings opportunities, and retirement and estate planning are explored. Includes study of budgeting, taxes, housing, contemporary developments in financial institutions, and legal regulations. May not be counted towards fulfilling requirements for any degree program offered by the School of Business and Public Administration. (4 units)

Upper Division

Enrollment in upper division courses restricted to students who have met all prerequisites and have completed at least 89.9 quarter units (junior class level). Students who do not meet these requirements will be disenrolled.

313. Business Finance

Basic principles of financial analysis for management. Techniques of financial decision-making for liquidity management, financial forecasting, dividend policy and selection of sources of capital. A self-paced version of this course (Finance 313A) is also available. (Students may not receive credit for both.) *Prerequisite: Accounting 212 or 312, Management Science 210 and Mathematics 110.* (4 units)

314. Corporate Financial Management

An advanced study of internal business financial policies and decisions. Includes: capital budgeting, sources and forms of long-term financing, financial structure, cost of capital, equity management, and mergers and acquisitions. *Prerequisite: Finance 313.* (4 units)

360. Risk Management and Insurance

The theoretical and institutional framework of risk management and insurance. Identification and evaluation of personnel, liability, and property risks facing business, nonprofit organizations, government, individuals and families. Selecting and implementing the best combinations of tools/methods, including retention, loss control and insurance, for handling pure risks.

Prerequisites: Accounting 211, 212 and Finance 313. (4 units)

430. Financial Theory and Practice

Financial management with application to capital markets, financial planning, capital budgeting, capital structure, portfolio selection and managerial problems.

Prerequisites: Finance 313 and 314. (4 units)

432. Financial Institutions and Capital Formation

Structure, operations, portfolio compositions and problems of financial intermediaries and markets.

Prerequisite: Finance 313. (4 units)

433. International Business Finance

Financial operations of multinational businesses with emphasis on foreign exchange mechanics, funds transmission, financing instruments, institutions and markets, capital investment decisions and special problems facing a firm in this unique environment.

Prerequisite: Finance 313. (4 units)

434. Export-Import Financing

International complexities of financing worldwide business. Emphasis on sources of domestic financing, international lending agencies, markets, insurance guarantee programs, international banking and development banks. Problems of income and dividend repatriation and taxation. *Prerequisite: Finance 313.* (4 units)

435. Investment Analysis

Analysis and forecasting of security markets, industry studies, portfolio construction. *Prerequisite: Finance 313, 314 and 430.* (4 units)

445. Financial Analysis and Decision-Making

Decision-making in financial management. Advanced financial applications and analysis, including reporting and presentations. Students are advised to take this course near the end of their program. *Prerequisite: Finance 430.* (4 units)

503. Financial Management Concepts

An introductory course in financial management with an emphasis on concepts, tools and strategies underlying corporate financial decision-making. Topics include techniques used by firms in procuring and allocating capital for short-term and long-term operations. No credit will be awarded to students who have had Finance 313 and 314. May not be counted toward fulfilling requirements for any degree program offered by the School of Business and Public Administration. *Prerequisite: Accounting 503.* (4 units)

575. Internship in Finance

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

580. Principles of Real Estate

Introduction to basic issues in real estate. Special emphasis will be placed on regional and urban economics, the valuation of real estate, real estate finance, brokerage and management of real estate, and investment aspects of real estate. *Prerequisite: Finance 313.* (4 units)

590. Seminar in Finance

An intensive study of some phase of finance to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units)

FOODS AND NUTRITION

Approved as a Didactic Program in Dietetics, Plan V, by the American Dietetic Association

Department of Health Science

*Physical Sciences Building, Room 119
880-5339*

Bachelor of Science

Foods and Nutrition

The Bachelor of Science in Foods and Nutrition is appropriate for students preparing for careers dealing with foods, nutrition or dietetics. Students are prepared for entry-level positions in institutional dietetics, public health nutrition and private enterprise. In addition, students are prepared for entry to graduate schools.

B.S. IN FOODS AND NUTRITION

Requirements (113 units)

Requirements for the B.S. in Foods and Nutrition:

Note: Certain required courses also apply in the university's general education program (refer to Page 59).

Lower-division requirements (52 units)

1. Biol 220. Principles of Microbiology (6)
2. Biol 223. Human Physiology and Anatomy I (5)
3. Biol 224. Human Physiology and Anatomy II (5)
4. Chem 205. Fundamentals of Chemistry I: General Chemistry (5)
5. Chem 206. Fundamentals of Chemistry II: Organic Chemistry (5)
6. Chem 207. Fundamentals of Chemistry III: Biochemistry (5)
7. CSci 123. Using Computer Software (2)
8. *Four units chosen from:*
 - Econ 104. Introduction to Economics (4)
 - Econ 200. Principles of Microeconomics (4)
 - Econ 202. Principles of Macroeconomics (4)
9. HSci 120. Health and Society: An Ecological Approach (5)
10. HSci 225. The Dietetic Profession (1)
11. HSci 245. Foods (5)
12. Psc 100. Introduction to Psychology (4)

Upper-division requirements (61 units)

1. HSci 301. Principles of Health Education for Health Educators (4)
2. HSci 345. Food Science (5)
3. HSci 362. Principles of Nutrition (4)

4. HSci 365. Nutrition Throughout the Life Cycle (4)
5. HSci 368. Diet and Disease I (4)
6. HSci 369. Diet and Disease II (4)
7. HSci 445. Community Nutrition (4)
8. HSci 447. Advanced Nutrition (4)
9. HSci 465. Food Service Production Management (5)
10. HSci 466. Food Service Procurement (4)
11. HSci 467. Food Service Systems Management (4)
12. Mgmt 302. Management and Organizational Behavior (4)
- or
- Psc 302. Management and Organizational Behavior (4)
13. Math 305. Statistics: Hypothesis Testing and Estimation (4)
14. NSci 495. Expository Writing for the Natural Sciences (4)
15. Three units of Health Science elective courses.

FOREIGN LANGUAGES AND LITERATURES

Department of Foreign Languages

*Pfau Library Building, Room 272
880-5847*

The Department of Foreign Languages offers a wide variety of courses both in the foreign languages and in English. The foreign languages include French, German and Spanish. The offerings of each language can be found separately listed in alphabetical order within the curriculum section of this Bulletin. Courses that apply comprehensively to all languages, including English, appear below.

The principal objectives of the department's programs are to teach students to understand, speak, read and write the foreign languages offered; and to promote an understanding of foreign civilizations and an appreciation of their literatures. This background will prepare students to teach foreign languages and will provide language skills for those interested in positions such as librarian, interpreter, translator, foreign service officer and foreign trade specialist.

COURSE OFFERINGS IN FOREIGN LANGUAGES AND LITERATURES (FLan)

Lower Division

100. English as a Second Language

Self-paced course designed to help students gain mastery of the English language at beginning, intermediate and advanced levels. No more than 10 units are applicable to a baccalaureate degree. Open only to foreign students for whom English is a second language. *Prerequisite: consent of instructor.* (4 units)

101. Independent Language Study I

Introduction to a language not offered as a major or minor. Fundamentals of pronunciation, structure and culture designed to develop the ability to use and understand the chosen language. May be repeated for credit as topics change. (4 units)

102. Independent Language Study II

Further study in a language not offered as a major or minor. Fundamentals of pronunciation, structure and culture designed to develop the ability to use and understand the chosen language. May be repeated for credit as topics change. *Prerequisite: Foreign Languages 101 in the chosen language.* (4 units)

103. Independent Language Study III

Additional study of a language not offered as a major or minor. Fundamentals of pronunciation, structure, and culture designed to develop the ability to use and understand the chosen language. May be repeated for

credit as topics change. *Prerequisite: Foreign Languages 102 in the chosen language.* (4 units)

150. Independent Intermediate Language Study

Intermediate study in a language not offered as a major or minor. Emphasis on oral and written competency at the intermediate level in a cultural context. May be repeated for credit as topics change. *Prerequisite: two years of high school study in the chosen language or Foreign Languages 103 in the chosen language, or equivalent.* (4 units)

Upper Division

320. Masterpieces of Literature

Selected masterpieces and authors from Western Europe and Latin America. Course taught entirely in English. No foreign language prerequisite. May be repeated for credit as topics change. (4 units)

555. Independent Study

Independent study of individual writers and genres. *Prerequisites: one 300-level course in the language under study or consent of instructor, a minimum overall grade-point average of 3.0, departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (4 units)

FRENCH

Department of Foreign Languages

*Pfau Library Building, Room 272
880-5847*

Bachelor of Arts

French

Teaching Credential Program

French

Minor

French

Certificate Program

French/English and English/French Translators

The study of French combines training in foreign studies with language, literature and culture. These studies contribute to the basis of any program of liberal education, affording insight into foreign attitudes and methods and permitting free communication, written and oral, among people.

In addition to the traditional preparation of teachers in the subject, a major in French can provide a good background for advanced professional or business programs, especially when combined with an appropriate second major.

Attention is drawn to other courses which may be of interest to French majors:

1. FLaN 320. Masterpieces of Literature
2. FLaN 555. Independent Study
3. Hum 380. Comparative Studies in the Arts and Literature of Western and Non-western Cultures
4. Hum 460. Cultural Studies
5. Hum 499. Methods and Materials in the Teaching of Humanities

B.A. IN FRENCH

Requirements (60 units)

Requirements for the B.A. in French:

Proficiency in French equal to that of French 150. Intermediate French or equivalent.

Lower-division requirements (12 units)

1. Fren 212. Composition (4)
2. Fren 214. Conversation (4)
3. Fren 216. Introduction to Literary Texts (4)

Upper-division requirements (48 units)

1. Fren 302. Advanced French Composition (4)
2. Fren 306. French Linguistics (4)
3. Fren 311. Masterpieces of French Literature I (4)
4. Fren 312. Masterpieces of French Literature II (4)

5. Fren 313. Masterpieces of French Literature III (4)
6. Fren 314. Masterpieces of French Literature IV (4)
7. Fren 460. French Culture Studies (4)
8. *Twenty units chosen from:*
 - Fren 309A. French for Translators: General Translation (4)
 - Fren 309B. French for Translators: Commercial Translation (4)
 - Fren 309C. French for Translators: Technical Translation (4)
 - Fren 340. Advanced Conversation (2) for a total of (4)
 - Fren 420. Special Topics in French Literature (4)
 - Fren 514. Seminar in French Language, Literature or Civilization (4)

TEACHING CREDENTIAL PROGRAM

The Bachelor of Arts in French is an approved single subject teaching credential program in foreign language. In order to be recommended for the teaching credential, students must complete the Bachelor of Arts in French and certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program or specific requirements of the single subject waiver program, see Page 147 or contact the School of Education Credentials Office.

MINOR IN FRENCH

Requirements (32 units)

Requirements for a minor in French:

Proficiency in French equal to that of French 150. Intermediate French or equivalent.

Lower-division requirements (12 units)

1. Fren 212. Composition (4)
2. Fren 214. Conversation (4)
3. Fren 216. Introduction to Literary Texts (4)

Upper-division requirements (20 units)

1. Fren 302. Advanced French Composition (4)
2. Fren 306. French Linguistics (4)
3. Fren 460. French Culture Studies (4)
4. Eight additional units from any upper-division French course.

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote

successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate for French/English and English/French Translators

Certificate Requirements (28 units)

Proficiency in French equal to French 150. Intermediate French or equivalent and completion of the following courses with a GPA of 2.7 or better. **Note:** Entering students with previous training in French and those who are native speakers, should contact the Department of Foreign Languages for information about advanced placement and credit by examination.

Lower-division requirement (4 units)

1. Fren 212. Composition (4)

Upper-division requirements (24 units)

1. Fren 302. Advanced French Composition (4)
2. Fren 309A. French for Translators: General Translation (4)
3. Fren 309B. French for Translators: Commercial Translation (4)
4. Fren 309C. French for Translators: Technical Translation (4)
5. Fren 460. French Culture Studies (4)
6. *Four units chosen from:*
 - Educ 495. Expository Writing for Education (4)
 - Eng 495. Expository Writing (4)
 - Hum 495. Expository Writing for the Humanities (4)
 - Mgmt 495. Expository Writing for Administration (4)
 - NSci 495. Expository Writing for the Natural Sciences (4)
 - SSci 495. Expository Writing for the Social Sciences (4)

COURSE OFFERINGS IN FRENCH (Fren)

Lower Division

Courses at the 101, 102, 103 and 150 levels require one hour each week in the language laboratory in addition to the regularly scheduled classroom hours. These courses are offered in a self-paced format as well as a traditional format.

101. College French I

Fundamentals of pronunciation, structure and French culture designed to develop the ability to use and understand basic spoken French. A self-paced version of this course (French 101A) is also available. Students may not receive credit for both French 101 and 101A. (4 units)

102. College French II

Further study of the fundamentals of pronunciation, structure and French culture designed to develop the ability to use and understand basic spoken French. Continuation of French 101. A self-paced version of this course (French 102A) is also available. Students may not receive credit for both French 102 and 102A. (4 units)

103. College French III

Additional study of the fundamentals of pronunciation, structure and French culture designed to develop the ability to use and understand basic spoken and written French. Continuation of French 102. A self-paced version of this course (French 103A) is also available. Students may not receive credit for both. (4 units)

150. Intermediate French

Emphasis on oral and written competency at the intermediate level in a cultural context. A self-paced version of this course (French 151) is also available. Students may not receive credit for both. *Prerequisite: two years of high school French, or French 103, or equivalent.* (4 units)

212. Composition

Comprehensive review of the principles of French grammar, emphasizing their application to composition. May not be taken for credit by students who have received credit for French 104. *Prerequisite: French 150 or equivalent.* (4 units)

214. Conversation

Practice of oral French stressing the discussion of current topics, panel discussions, debates, short talks and skits. May not be taken for credit by students who have received credit for French 200. *Prerequisite: French 150 or equivalent.* (4 units)

216. Introduction to Literary Texts

Techniques of literary study and analysis. Vocabulary development. May not be taken for credit by students who have received credit for French 210. *Prerequisite: French 150 or equivalent.* (4 units)

290. French Literature in English

Introduction to French literature read in English translation. (4 units)

Upper Division

Ordinarily, upper-division courses are conducted in French. Students enrolled in these courses will be evaluated on appropriate progress in both the command of the language and the subject matter.

302. Advanced French Composition

Structure of the French language, with emphasis on improvement of the students' ability to write French. *Prerequisite: French 212 or equivalent.* (4 units)

306. French Linguistics

French phonology, morphology and syntax. *Prerequisite: French 214 or equivalent.* (4 units)

309. French for Translators

Extensive practice in precise written translations from French into English and from English into French. Self-paced course. May be repeated for credit as topics change. *Prerequisite: French 212 or equivalent.*

- A. General Translation (4)
- B. Commercial Translation (4)
- C. Technical Translation (4)

311. Masterpieces of French Literature I

Readings in French literature from the Middle Ages through the sixteenth century. *Prerequisite: French 216 or equivalent.* (4 units)

312. Masterpieces of French Literature II

Readings in seventeenth and eighteenth century French literature. *Prerequisite: French 216 or equivalent.* (4 units)

313. Masterpieces of French Literature III

Readings in nineteenth century French literature. *Prerequisite: French 216 or equivalent.* (4 units)

314. Masterpieces of French Literature IV

Readings in twentieth century French literature. *Prerequisite: French 216 or equivalent.* (4 units)

340. Advanced Conversation

Advanced practice of oral French stressing the reading and discussion of current topics in France. A maximum of 4 units may be applied toward the major. *Prerequisite: French 214 or consent of instructor.* (2 units)

399. Community Service Project

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of department.* (Credit to be arranged: 1 or 2 units)

420. Special Topics in French Literature

Critical examination of selected works in French literature. Emphasis on the novel, drama, poetry and the essay. May be repeated for credit as topics change. *Prerequisites: two 300-level courses in French literature or equivalent.* (4 units)

460. French Culture Studies

Aspects of culture and civilization with emphasis on major factors shaping national tradition. *Prerequisite: French 212 or French 214 or equivalent.* (4 units)

514. Seminar in French Language, Literature or Civilization

Advanced study of a single author, a literary movement, linguistics or civilization. May be repeated for credit as topics change. *Prerequisite: one 400-level French course.* (4 units)

GEOGRAPHY

Department of Geography

Faculty Office Building, Room 249
880-5519

Bachelor of Arts

Geography - Track A
Geography - Track B

Minor

Geography

Certificate Program

Urban Planning

Geography is concerned with the spatial variations and interrelations of the natural and cultural features of the earth. Geographers study the earth primarily as the home of human beings. As an approach to knowledge, geography forms an interdisciplinary bridge between the physical and cultural worlds, examining both humans and their environment. As a synthesizing discipline, geography is an especially attractive major for liberal arts and science students. Its body of theory and methodologies provides an analytic technique applicable to a wide range of questions. For students planning to terminate their formal education with a bachelor's degree, it also provides both the regional and world perspective required of responsible citizens. For the same reasons, geography is especially valuable for those who plan to do graduate work. Geography offers job opportunities in teaching, business, government, armed forces, conservation and water resources, planning and market research, and international organizations.

Students who can meet the qualifications are also encouraged to participate in the California State University's International Programs. Such participation will not only contribute immediately to the students' geographical knowledge and degree program, but may have longer-term educational and career benefits as well. For further information, see Page 21.

B.A. IN GEOGRAPHY TRACK A Requirements (55 units)

Requirements for the B.A. in Geography - Track A:

Lower-division requirements (9 units)

1. Geog 100. Introduction to Human Geography (4)

2. Geog 103. Physical Geography (5)

Upper-division requirements (46 units)

1. Geog 300. Map Interpretation (2)
2. Geog 380. Population Geography (4)
3. Geog 420. Geography of Economic Activity (4)
4. *Eight units chosen from:*
 - Geog 301. Cartography (4)
 - Geog 304. Field Methods in Geography (4)
 - Geog 305. Geographic Research Methods (4)
 - Geog 306. Remote Sensing of Environment (4)
5. *Four units chosen from:*
 - Geog 309. Area Study: Soviet Union (4)
 - Geog 310. Area Study: Africa (4)
 - Geog 321. Area Study: Latin America (4)
6. *Eight units chosen from:*
 - Geog 360. Climate and Vegetation (4)
 - Geog 460. Biogeography (4)
 - Geog 470. Hydrology and Water Resources (4)
 - Geog 480. Geomorphology (4)
7. Sixteen units of upper-division course work in Geography chosen in consultation with a departmental advisor. Only four of these units may be drawn from the area studies group.

B.A. IN GEOGRAPHY TRACK B Requirements (55 units)

Requirements for the B.A. in Geography - Track B:

Lower-division requirements (9 units)

1. Geog 100. Introduction to Human Geography (4)
2. Geog 103. Physical Geography (5)

Upper-division requirements (46 units)

1. Geog 300. Map Interpretation (2)
2. Geog 380. Population Geography (4)
3. Geog 420. Geography of Economic Activity (4)
4. *Eight units chosen from:*
 - Geog 301. Cartography (4)
 - Geog 304. Field Methods in Geography (4)
 - Geog 305. Geographic Research Methods (4)
 - Geog 306. Remote Sensing of Environment (4)
5. *Four units chosen from:*
 - Geog 309. Area Study: Soviet Union (4)
 - Geog 310. Area Study: Africa (4)
 - Geog 321. Area Study: Latin America (4)
6. *Eight units chosen from:*
 - Geog 360. Climate and Vegetation (4)
 - Geog 460. Biogeography (4)
 - Geog 470. Hydrology and Water Resources (4)
 - Geog 480. Geomorphology (4)

7. Sixteen units of upper-division course work in Geography and/or related disciplines to be chosen in consultation with a departmental advisor. Only four of these units may be drawn from the area studies group.

MINOR IN GEOGRAPHY

Requirements (33 units)

Requirements for a minor in Geography:

Lower-division requirements (9 units)

1. Geog 100. Introduction to Human Geography (4)
2. Geog 103. Physical Geography (5)

Upper-division requirements (24 units)

1. Geog 420. Geography of Economic Activity (4)
 2. Twenty units chosen from any upper-division Geography courses chosen in consultation with a departmental advisor. Only four units of these units may be drawn from the area studies group.
-

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Urban Planning

Certificate Requirements (24 units)

1. Geog 301. Cartography (4)
 2. Geog 306. Remote Sensing of Environment (4)
 3. Geog 350. Conservation and Natural Resources (4)
- or
4. Econ 360. Economics of the Environment (4)
 4. Geog 415. Urban Planning and Land Development (4)
 5. Geog 440. Understanding the City (4)
 6. *Four units chosen from:*
 - Anth 493. Urban Anthropology (4)
 - Geog 575. Internship in Geography (4)

- HSci 372. Environmental Administration and Environmental Impact Reporting (4)
 - HSci 401. Land Use: Health Aspects (4)
 - PA 521. Principles of Planning (4)
 - Soc 420. Population and Social Ecology (4)
 - Soc 430. Urban Sociology (4)
-

COURSE OFFERINGS IN GEOGRAPHY (Geog)

Lower Division

100. Introduction to Human Geography

Introduction to the geographic study of human activities throughout the world. (4 units)

103. Physical Geography

Systematic approach to the physical environment of man stressing the relationships between the atmosphere, land, life forms and water. Four hours lecture and three hours laboratory. *Prerequisite: satisfactory score on the entry level mathematics examination.* (5 units)

Upper Division

300. Map Interpretation

Basic introduction to skills and reasoning ability needed to appreciate and use maps as professional tools and as illustrative devices. (2 units)

301. Cartography

Provides the necessary drafting skills to construct maps, charts and graphs. Three hours lecture and three hours laboratory. *Prerequisite: Geography 300 or consent of instructor.* (4 units)

302. Geography of California

Systematic and regional study of California geography stressing general geographical concepts to explain sequential human settlement patterns in relation to the natural environment. (4 units)

303. Computer Cartography

An introduction to the use of computers and related devices in map design. An emphasis is placed on microcomputer applications. Three hours lecture and two hours laboratory. *Prerequisites: Geography 300 and 301 or consent of instructor.* (4 units)

304. Field Methods in Geography

Introduction to methods and techniques for the acquisition of geographic data from direct field measurement and observations. One hour lecture and six hours field activity. (4 units)

305. Geographic Research Methods

Quantitative methods in geography including computer applications and the writing of geographic research reports. (4 units)

306. Remote Sensing of Environment

Interpretation of environmental phenomena recorded by satellite and aerial multispectral sensing systems, especially conventional aerial photography. *Prerequisite: Geography 103 or consent of instructor.* (4 units)

309. Area Study: Soviet Union

Regional analysis of socio-economic development and environmental problems. (4 units)

310. Area Study: Africa

Regional analysis of socio-economic development and environmental problems. (4 units)

321. Area Study: Latin America

Regional analysis of socio-economic development and environmental problems. (4 units)

330. The Geography of Gender

Spatial analysis of social, political, and economic factors associated with gender relations and demographic patterns in the United States. An exploration of the causes of regional and spatial variations in gender patterns. (4 units)

340. Political Geography

An examination of contemporary problems in the spatial patterns of political processes at the international, interregional and urban scales. (4 units)

350. Conservation and Natural Resources

Principles of resource utilization and ecology as they involve human development and politico-economic policy. (4 units)

360. Climate and Vegetation

Climate and vegetation, and the interrelationships between the two including the consideration of atmospheric processes significant for understanding regional patterns of distribution. *Prerequisite: Geography 103 or consent of instructor.* (4 units)

380. Population Geography

Spatial distribution and redistribution of population; interrelationships between population and the environment, including techniques of analysis. (4 units)

390. Selected Topics in Geography

Examination of selected topics of current interest in geography. May be repeated for credit as topics change. (4 units)

392. Selected Topics in Geography

Examination of selected topics of current interest in geography. May be repeated for credit as topics change. (2 units)

415. Urban Planning and Land Development

Comprehensive urban planning and land use controls. Emphasis on impact of urban development in North America. (4 units)

420. Geography of Economic Activity

Analysis of concepts of location, interaction and regionalization as they apply to economic activity. Special emphasis on economic growth and modernization. (4 units)

440. Understanding the City

A study of the physical and social attributes of the North American city. Emphasis is placed on urban planning and policy making. (4 units)

460. Biogeography

Investigation of plants and animals according to their environmental and spatial relationships. Biogeographic theory and regions will be examined; agents of biotic distribution and human influences will be noted. (Also

offered as Biology 460. Students may not receive credit for both.) *Prerequisites: upper-division standing, Geography 103, and Biology 201 or 202; or consent of instructor.* (4 units)

470. Hydrology and Water Resources

Basic principles of hydrology: relationships between atmospheric, surface and groundwater phenomena; streamflow and flood prediction; water supply and quality. *Prerequisite: Geography 103 or consent of instructor.* (4 units)

480. Geomorphology

The processes that shape the surface of the earth and the landforms that result. *Prerequisite: Geography 103 or Geology 101 or consent of instructor.* (4 units)

575. Internship in Geography

Supervised work in public or private organizations emphasizing practical applications of geographic concepts. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and department.* (5 units)

595. Independent Study

A total of 8 units in Geography 595 may be applied toward the major and graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Proseminar in Geography

Survey of the concepts and ideas that geographers study, how they approach the study of geographical phenomena, and what methods they employ in their analysis. The seminar will include discussion of the relationships of the discipline to other social science disciplines and the unique contributions geography has made to knowledge in general and in the social sciences. *Prerequisite: consent of instructor.* (4 units)

609. Seminar in the Geography of the Soviet Union

A geographic perspective of the Soviet Union, including such topics as population, economic development, environment and foreign relations. (4 units)

621. Seminar in the Geography of Latin America

A geographic perspective of Latin America, including such topics as population, economic development, environment and foreign relations. (4 units)

GEOLOGY

School of Natural Sciences

Biological Sciences Building, Room 21
880-5336 or 880-5300

Bachelor of Science

Geology

The study of geology is twofold: 1) geologists attempt to understand the physical and biological processes that affect and are recorded in rocks, minerals, and earth materials; and 2) geologists use that information to decipher and understand the unwritten history of our planet. Much of the information geologists use is obtained by careful, systematic field work, which is an inherent requirement for geological studies.

Geology is a broad science and integrates with other classical sciences and disciplines such as chemistry, physics, biology, and mathematics, computer science, and geography. Coursework in those disciplines, integrated within a geological framework, provides students with many marketable technical skills as well as an ability to analyze large quantities of data.

A bachelor's degree in geology provides graduates with the necessary skills for employment in mining and mineral resources, governmental agencies, some phases of the oil industry, and environmental and technological fields. The long-range career outlook for geologists seems good at the present. The B.S. degree will also provide students seriously considering geology as a career with the training necessary for graduate studies.

B.S. IN GEOLOGY

Requirements (115 units)

Requirements for the B.S. in Geology:

Lower-division requirements (51 units)

1. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
2. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
3. CSci 123. Using Computer Software (2)
4. Geol 101. Physical Geology (5)
5. Geol 250. Historical Geology (5)
6. Math 211. Basic Concepts of Calculus (4)
7. Math 212. Calculus II (4)
8. Math 262. Applied Statistics (4)
9. Phys 221. General Physics I (5)
10. Phys 222. General Physics II (5)
11. Phys 223. General Physics III (5)

Upper-division requirements (48 units)

1. Geol 320. Mineralogy and Crystallography (5)
2. Geol 325. Igneous and Metamorphic Petrology (5)
3. Geol 330. Sedimentary Petrology (5)
4. Geol 340. Stratigraphy (5)
5. Geol 350. Paleontology (5)
6. Geol 360. Structural Geology (5)
7. Geol 370. Tectonics (4)
8. Geol 390. Field Camp (8)
9. Geol 395. Directed Studies (2)
10. Geol 410. Optical Mineralogy (4)

Electives (16 units)

A minimum of four units from each of the four following groups:

Group I: Areal Field Studies

- Geol 310. Intermediate Field Studies (2) (May be repeated for credit as topics change.)

Group II: Regional Geology

- Geol 440. Geology of California (4)
Geol 450. Geology of North America (4)

Group III: Computer Drafting

- Geog 303. Computer Cartography (4)
ITec 330. Computer Aided Design and Drafting (5)

Group IV: Applied Geology

- Geog 306. Remote Sensing of Environment (4)
Geog 470. Hydrology and Water Resources (4)
Geol 460. Topics in Applied Geology (4)
Geol 470. Economic Geology and Mineral Resources (4)

COURSE OFFERINGS IN GEOLOGY (Geol)

101. Physical Geology

An introduction to the study of the earth, particularly the structure, composition, distribution and modification of earth materials, and processes that shape the surface of the earth. Four hours lecture and three hours laboratory. May not be taken for credit by students who have received credit for Earth Science 101. *Prerequisite: satisfactory score on the entry level mathematics examination.* (5 units)

110. Elementary Field Studies

Introduction to field observations and their geologic interpretation of a selected region or locality. May be repeated for credit as topics change. May not be taken for credit toward fulfilling requirements in the Geology major. Graded credit/no credit. *Prerequisite: Geology 101.* (2 units)

250. Historical Geology

Study of the origin and evolution of the earth and its life forms as interpreted from the rock and fossil record. Four hours lecture and three hours laboratory. May not

be taken for credit by students who have received credit for Earth Science 102. *Prerequisite: Geology 101.* (5 units)

Upper Division

310. Intermediate Field Studies

Investigation of geologic features and their interpretation based on field observations of selected region or locality. May be repeated for credit as topics change. *Prerequisite: Geology 250.* (2 units)

320. Mineralogy and Crystallography

Introduction to crystal symmetry, crystallography, crystal chemistry, mineral classification, mineral genesis, physical and chemical properties of minerals, and laboratory identification of important ore and rock-forming minerals. Three hours lecture and six hours laboratory. May not be taken for credit by students who have received credit for Earth Science 320. *Prerequisite: Geology 101. Prerequisite or corequisite: Chemistry 215.* (5 units)

325. Igneous and Metamorphic Petrology

Description and genesis of igneous and metamorphic rocks, their mineralogic and chemical composition, internal structure, and mode of occurrence. Three hours lecture and six hours laboratory. Three, one-day field trips required. May not be taken for credit by students who have received credit for Earth Science 325. *Prerequisite: Geology 320. Prerequisite or corequisite: Chemistry 216.* (5 units)

330. Sedimentary Petrology

Study of sedimentary processes, depositional environments, and diagenesis, based on the interpretation and classification of sedimentary rocks. Four hours lecture and three hours laboratory. *Prerequisites: Geology 250 and 320.* (5 units)

340. Stratigraphy

Principles of analysis, description, and interpretation of stratiform rock, including stratigraphic nomenclature, correlation, facies relationships, and paleoenvironmental reconstruction. Four hours lecture and three hours laboratory. *Prerequisite: Geology 330.* (5 units)

350. Paleontology

Concepts of paleobiology exemplified by systematic study of important fossil groups. Four hours lecture and three hours laboratory. May not be taken for credit by students who have received credit for Earth Science 350. *Prerequisite: Geology 250.* (5 units)

360. Structural Geology

Mechanics and characteristics of rock deformation and analytical techniques for the solution of structural relationships. Four hours lecture and three hours laboratory. May not be taken for credit by students who have received credit for Earth Science 360. *Prerequisites: Geology 250 and Physics 221.* Recommended: Geology 325 and 340. (5 units)

370. Tectonics

Interpretation of the geological evidence for plate tectonics; the mechanisms that control it; the structures it produces; its control on igneous, metamorphic, sedimentologic, and biological processes; and plate interactions. Four hours lecture. *Prerequisites: Geology 250 and Physics 221.* (4 units)

390. Field Camp

Geological field work at selected areas in the western United States. Techniques of geologic mapping and structural, petrologic, stratigraphic, and paleontologic interpretation will be used to interpret the geological history and significance of those areas through reports, maps, cross-sections, and diagrams. *Prerequisites: Geology 340, 350, 360 and consent of instructor.* (8 units)

395. Directed Studies

Individual laboratory, field or library study conducted under the direction of a faculty member. A total of six units in Geology 395 may be applied toward graduation. A minimum of two units of Geology 395 are required for the B.S. degree in Geology. *Prerequisites: consent of the office of the School of Natural Sciences and approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (1–6 units)

410. Optical Mineralogy

Theory and application of petrographic microscopy for the analysis and identification of minerals. Two hours lecture and six hours laboratory. *Prerequisites: Geology 320 and Physics 223.* (4 units)

440. Geology of California

Interpretation of the geological features and evolution of California. Four hours lecture. May not be taken for credit by students who have received credit for Earth Science 301. *Prerequisite: Geology 250.* (4 units)

450. Geology of North America

Survey of the geologic history, structural geology, stratigraphy, and important geologic features of the geologic province of North America. Four hours lecture. *Prerequisite: Geology 250.* (4 units)

460. Topics in Applied Geology

A selected topic of applied geology such as engineering geology, groundwater, environmental geology, resource management, well-log analysis, and geological hazards. Four hours lecture. May be repeated for credit as topics change. *Prerequisite: Geology 360 or consent of instructor.* (4 units)

470. Economic Geology and Mineral Resources

Distribution, characteristics, associations, origin, and techniques associated with the recovery of economic mineral, hydrocarbon, and sundry geological resources. Four hours lecture. *Prerequisites: Geology 325 and 330.* (4 units)

520. Readings in Classical Geology

Directed readings of important geologic literature that have shaped our understanding of the earth and its history. May be repeated for credit. *Prerequisite: Geology 250.* (2 units)

540. Advanced Topics in Geology

An advanced geologic topic, such as geophysics, carbonate petrology, seismic stratigraphy, biostratigraphy, advanced igneous and metamorphic petrology, volcanic processes, geochemistry, paleoecology, Quaternary geology, geostatistics, micropaleontology, vertebrate paleontology, paleobotany, marine geology, and rock mechanics. May be repeated for credit as topics change. *Prerequisites: Geology 250 and consent of instructor.* (4 units)

545. Laboratory for Advanced Topics in Geology

Laboratory work to accompany some topics offered in Geology 540. Three hours laboratory. May be repeated for credit as topics change. *Corequisite: Geology 540.*
(1 unit)

595. Independent Study

Laboratory, field or library research conducted under the direction of a faculty member. A total of six units in Geology 595 may be applied towards the major in Geology. *Prerequisites: a minimum overall grade-point average of 3.0, consent of the Office of the School of Natural Sciences, and approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.*
(Credit to be arranged: 1 to 6 units)

GERMAN

Department of Foreign Languages

*Pfau Library Building, Room 272
880-5847*

Minor

German

Certificate Program

German/English and English/German
Translators

The German program, open to all interested students, offers courses that develop language capabilities and an appreciation and comprehension of the literature and culture of Germany, Austria and Switzerland. Information on the special interdisciplinary major in German area studies may be obtained from the Department of Foreign Languages.

Courses taught in English are listed under Foreign Languages (Page 171) and Humanities (Page 203). Courses listed below are offered both to fulfill general education requirements and to support other major programs.

MINOR IN GERMAN

Requirements (24 units)

Requirements for a minor in German:

Proficiency in German equal to German 150. Intermediate German or equivalent. **Note:** Entering students with previous training in German, and those who are native speakers, should contact the Department of Foreign Languages for information about advanced placement and credit by examination.

Lower-division requirements (12 units)

1. Ger 212. Composition (4)
2. Ger 214. Conversation (4)
3. Ger 216. Introduction to Literary Texts (4)

Upper-division requirements (12 units)

1. Ger 309. Advanced German
Composition (4)
2. Eight units chosen from upper-division German courses.

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce

mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate for German/English and English/German Translators

Certificate requirements (36 units)

Proficiency in German equal to German 150. Intermediate German or equivalent and completion of the following courses with a GPA of 2.7 or better. **Note:** Entering students with previous training in German, and those who are native speakers, should contact the Department of Foreign Languages for information about advanced placement and credit by examination.

Lower-division requirements (12 units)

1. Ger 212. Composition (4)
2. Ger 214. Conversation (4)
3. Ger 216. Introduction to Literary Texts (4)

Upper-division requirements (24 units)

1. Eng 495. Expository Writing (4)
2. Ger 309. Advanced German
Composition (4)
3. Ger 311. Survey of German Literature (4)
4. Ger 312. Business German (4)
5. Ger 313. Technical and Scientific
Translation (4)
6. Hum 460E. Cultural Studies: Germany (4)

COURSE OFFERINGS IN GERMAN (Ger)

Lower Division

Courses at the 101, 102, 103 and 150 levels require one hour each week in the language laboratory in addition to the regularly scheduled classroom hours.

101. College German I

Fundamentals of pronunciation, structure and German culture designed to develop the ability to use and understand basic spoken German. (4 units)

102. College German II

Further study of the fundamentals of pronunciation, structure and German culture designed to develop the ability to use and understand basic spoken German. Continuation of German 101. (4 units)

103. College German III

Additional study of the fundamentals of pronunciation, structure, and German culture designed to develop the ability to use and understand basic spoken and written German. Continuation of German 102. (4 units)

150. Intermediate German

Emphasis on oral and written competency at the intermediate level in a cultural context. *Prerequisite: two years of high school German, or German 103, or equivalent.* (4 units)

212. Composition

Comprehensive review of the principles of German grammar, emphasizing their application to composition. *Prerequisite: German 150 or equivalent.* (4 units)

214. Conversation

Practice of oral German stressing the discussion of current topics, panel discussions, debates, short talks and skits. May not be taken for credit by students who have received credit for German 200. *Prerequisite: German 150 or equivalent.* (4 units)

216. Introduction to Literary Texts

Techniques of literary study and analysis. Vocabulary development. *Prerequisite: German 150 or equivalent.* (4 units)

290. German Literature in English

Introduction to German literature read in English translation. (4 units)

Upper Division

Ordinarily, upper-division courses are conducted in German. Students enrolled in these courses will be evaluated on appropriate progress in both the command of the language and the subject matter.

308. Readings in German Literature

Selected literary genre or writer. May be repeated for credit as topics change. *Prerequisite: one of the following: German 212, 214, 216 or consent of instructor.* (4 units)

309. Advanced German Composition

Practice in composition and short essay writing with emphasis on the development of good writing style and expressive vocabulary. Practical application in writing. *Prerequisite: German 212 or 216 or consent of instructor.* (4 units)

310. Advanced German Conversation

Advanced practice of oral German stressing the discussion of topics based in part on current newspapers and periodicals. *Prerequisite: German 214 or consent of instructor.* (4 units)

311. Survey of German Literature

Survey course designed to introduce the student to the major literary movements and representative writers of German speaking cultures. *Prerequisites: German 212, 214, 216 or consent of instructor.* (4 units)

312. Business German

Practice in writing German business letters and translation from German to English of materials useful in business, politics and tourism. *Prerequisite: German 212 or 216 or consent of instructor.* (4 units)

313. Technical and Scientific Translation

Translation from German to English of technical and scientific material. *Prerequisite: German 212 or 216 or consent of instructor.* (4 units)

399. Community Service Project

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of department.* (Credit to be arranged: 1 or 2 units)

HEALTH SCIENCE

Department of Health Science and Human Ecology

*Physical Sciences Building, Room 119
880-5339*

Bachelor of Science

Health Science

with concentrations in:

- Community Health Education and Promotion
- Environmental Health
- Health Administration and Planning
- School Health

Teaching Credential Program

Health Science

Minor

Health Science

Master of Science

Health Services Administration

(Degree requirements can be found on Page 374.)

Certificate Programs

Community Mental Health

Gerontology

Health Services Administration and Planning

Occupational Safety and Health

Certification

Audiometrist Certification

The Department of Health Science and Human Ecology provides courses of instruction for personal growth, community service, intellectual stimulation and professional career opportunities in the health and environmental fields. The department emphasizes an ecological approach to health and attempts to provide students with the tools necessary to understand factors contributing to the promotion of general health and well-being and to the prevention of illness.

The Department of Health Science and Human Ecology offers a bachelor of science degree in health science and a bachelor of science degree in foods and nutrition. Students seeking a major in foods and nutrition should refer to Page 170 of this catalog for the description of this degree. In addition the department offers a master of science degree in health services administration, see Page 372. The department offers certificates in specialized areas.

A Bachelor of Science in Health Science is appropriate for students preparing to become health professionals, those who want to be health educators or health administrators, or those desiring to work in environmental protection agencies, private businesses or industrial hygiene and safety. The

program also is designed to provide a career ladder opportunity for persons currently engaged in health and environmental occupations or preparing for graduate work in public health, social or natural sciences.

The department offers a blend of traditional and modern approaches to education and career development in the health science field. It encourages multidisciplinary orientation, community interaction and a social outlook, and provides appropriate instruction in the natural sciences. In their senior year, students study in actual community agencies, such as health departments, hospitals, industrial plants, environmental improvement agencies and consumer affairs offices, thus combining theory and practice.

The Environmental Health Concentration is the appropriate choice for students who want to become health inspectors (i.e., Registered Environmental Health Specialist), industrial hygienists, or hazardous waste control experts. For those who plan on becoming Registered Environmental Health Specialists, this concentration is approved by the Sanitarian Registration Certification Advisory Committee of the California State Department of Health Services. Students who are certified by the environmental health coordinator will have met all of the academic requirements for admittance to the State Environmental Health Specialist Registration Examination. *In order to be certified, students must also take, in addition to the other requirements:*

Biol 202. Biology of Populations

and one of the following:

1. Phys 123. Basic Concepts of Physics III
2. Phys 223. General Physics III

Pre-professional students of medicine, dentistry, veterinary medicine or other science-related fields seeking a major in health science should refer to Page 65 and consult with a department advisor.

Students interested in fields such as health or environmental law, clinical chemistry, business, health physics, or any other academic discipline should complete the minimum requirements of the major and select appropriate electives in consultation with a department advisor.

B.S. IN HEALTH SCIENCE

Requirements (107 - 110 units)

Requirements for the B.S. in Health Science:

Note: Certain required courses also apply in the University's general education program (refer to Page 59).

Lower-division requirements (20 units)

1. Biol 100. Topics in Biology (5)
or
Biol 202. Biology of Populations (5)
2. Biol 223. Human Physiology and Anatomy I (5)
3. Biol 224. Human Physiology and Anatomy II (5)
4. HSci 120. Health and Society: An Ecological Approach (5)

Upper-division requirements (36 units)

1. HSci 352. Environmental Health I (4)
2. HSci 355. Health, Consumer and Environmental Law (4)
3. HSci 367. Human Disease Mechanisms (4)
4. HSci 371. Community Health Services (4)
5. HSci 451. Principles of Epidemiology (4)
6. HSci 489. Pre-Field Study Practicum (2)
7. HSci 492A. Field Study: Action/Research in Human Ecology and Health (5)
8. HSci 492B. Field Study: Action/Research in Human Ecology and Health (5)
9. Math 305. Statistics: Hypothesis Testing and Estimation (4)

Concentration (51-54 units)

One of the following four concentrations is required for the major:

- A. Community Health Education and Promotion Concentration (53 units)
 1. Biol 220. Principles of Microbiology (6)
 2. Chem 205. Fundamentals of Chemistry I: General Chemistry (5)
 3. Chem 206. Fundamentals of Chemistry II: Organic Chemistry (5)
 4. Chem 207. Fundamentals of Chemistry III: Biochemistry (5)
 5. HSci 301. Principles of Health Education for Health Educators (4)
 6. HSci 310. Health and Human Sexuality (4)
 7. HSci 342. Nutrition for Your Health (4)
 8. HSci 364. Drug and Alcohol Use and Abuse (4)

9. HSci 423. Health and Wellness of Older Adults (4)
10. HSci 470. Health Behavior (4)
11. HSci 471. Health Promotion: Program Planning and Evaluation (4)
12. HSci 598. Research Methodology in Health Science (4)

- B. Environmental Health Concentration (53-54 units)

1. Biol 220. Principles of Microbiology (6)
2. Chem 206. Fundamentals of Chemistry II: Organic Chemistry (5)
3. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
4. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
5. HSci 353. Environmental Health II (5)
6. HSci 372. Environmental Administration and Environmental Impact Reporting (4)
7. Math 110. College Algebra (4)
or
Math 120. Pre-Calculus Mathematics (4)
8. Phys 121. Basic Concepts of Physics I (5)
9. Phys 122. Basic Concepts of Physics II (4)
10. *Eight units of Health Science electives chosen from:*
 - HSci 356. Housing and Institutions (2)
 - HSci 357. Hazardous Material Control (2)
 - HSci 363. Toxicology (2)
 - HSci 374. Basic Audiometry and Hearing Problems (4)
 - HSci 381. Occupational Safety (4)
 - HSci 401. Land Use: Health Aspects (4)
 - HSci 425. Hearing Conservation and Noise Measurement (2)
 - HSci 458. Vector and Zoonotic Disease Control (4)
 - HSci 474. Advanced Audiometry (4)
 - HSci 476. Industrial Hygiene (4)
 - HSci 477. Environmental Health Engineering (4)

- C. Health Administration and Planning Concentration (51 units)

1. Acct 211. Principles of Accounting I (4)
2. CSci 121. Computer Technology and People (2)

3. CSci 123. Using Computer Software (2)
 4. Econ 200. Principles of Microeconomics (4)
 - or
 - Econ 202. Principles of Macroeconomics (4)
 5. HSci 415. Medical Care Organizations (4)
 6. HSci 422. Health Planning (4)
 7. HSci 423. Health and Wellness of Older Adults (4)
 8. *One of the following:*
 - HSci 427. Hospital Administration (4)
 - HSci 452. Special Topics in Health Science and Human Ecology (4)
 - HSci 455. Organization and Management of Long-Term Care Facilities (4)
 9. HSci 460. Strategic Planning and Marketing in the Health Care System (4)
 10. HSci 470. Health Behavior (4)
 11. HSci 490. Health Service Administration (4)
 12. Eleven units of Health Science electives or other electives approved by an advisor.
- D. School Health Concentration (53 units)
1. Biol 220. Principles of Microbiology (6)
 2. Chem 205. Fundamentals of Chemistry I: General Chemistry (5)
 3. HSci 301. Principles of Health Education for Health Educators (4)
 4. HSci 310. Health and Human Sexuality (4)
 5. HSci 332. Health Education in the Elementary School (4)
 - or
 - HSci 333. Health Education in the Secondary School (4)
 6. HSci 334. School Health Administration and Planning (2)
 7. HSci 364. Drug and Alcohol Use and Abuse (4)
 8. HSci 470. Health Behavior (4)
 9. HSci 471. Health Promotion: Program Planning and Evaluation (4)
 10. PE 200. First Aid (2)
 11. Fourteen units of Health Science electives or other electives approved by an advisor.

TEACHING CREDENTIAL PROGRAM

The School Health Concentration is the appropriate choice for all students who want to teach health in schools. It meets the requirements for a secondary teaching level major in Health Science. Students wishing to be recommended for a single subject teaching credential in Health Science must complete the requirements for this concentration as well as certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program, or specific requirements for the single subject waiver program see Page 147 or contact the School of Education Credentials Office.

MINOR IN HEALTH SCIENCE Requirements (31 units)

Requirements for a minor in Health Science:

Lower-division requirement (5 units)

1. HSci 120. Health and Society: An Ecological Approach (5)

Upper-division requirements (26 units)

1. HSci 352. Environmental Health I (4)
2. HSci 451. Principles of Epidemiology (4)
3. Eighteen units of upper-division health science courses chosen in consultation with an advisor.

DEPARTMENTAL HONORS

A graduating senior will be awarded departmental honors in health science after meeting the following requirements:

1. At least a 3.5 grade-point average in all courses required for the major taken at California State University, San Bernardino;
2. At least a 3.0 grade-point average overall;
3. An "A-" or better in Health Science 595. Independent Study (at least 5 units).

CERTIFICATE PROGRAMS

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerg-

ing interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Community Mental Health

Certificate requirements (30 units)

1. HSci 371. Community Health Services (4)
2. HSci 421. Community Mental Health (4)
3. Psyc 387. Community Psychology (4)
4. Psyc 390. Abnormal Psychology (4)
5. *Fourteen units of electives chosen from the following in consultation with an advisor:*
 - HSci 364. Drug and Alcohol Use and Abuse (4)
 - HSci 399A. Community Service Project (1)
 - HSci 399B. Community Service Project (2)
 - HSci 423. Health and Wellness of Older Adults (4)
 - HSci 451. Principles of Epidemiology (4)
 - HSci 470. Health Behavior (4)
 - HSci 492A. Field Study: Action/Research in Human Ecology and Health (5)
 - Psyc 201. Developmental Psychology (4)
 - Psyc 315. Communication Processes (4)
 - Psyc 329. Psychology of Adulthood and Aging (4)
 - Psyc 333. Drugs and Behavior (4)
 - Psyc 351. Behavior Modification: Principles and Applications (4)
 - Psyc 384. Personality and Social Development (4)
 - Psyc 385. Personality (4)
 - Psyc 391. Psychopathology of Childhood (4)
 - Psyc 490. Counseling Psychology (4)
 - Soc 355. Medical Sociology (4)
 - Soc 356. Sociology of Mental Illness (4)

Certificate in Gerontology

The Department of Health Science and Human Ecology participates in the interdisciplinary certificate in Gerontology. Details concerning this certificate are found under Sociology Certificate Programs, beginning on Page 291.

Certificate in Health Services Administration and Planning

Certificate Requirements (30 units)

Lower-division requirement (4 units)

1. Acct 211. Principles of Accounting I (4)

Upper-division requirements (26 units)

1. HSci 371. Community Health Services (4)
 2. HSci 415. Medical Care Organizations (4)
 3. HSci 422. Health Planning (4)
 4. HSci 427. Hospital Administration (4)
- or

- HSci 455. Organization and Management of Long-Term Care Facilities (4)
 5. HSci 490. Health Service Administration (4)
 6. HSci 590. Current Topics in Health Administration and Planning (2)
 7. Mgmt 302. Management and Organizational Behavior (4)
- or
- Psyc 302. Management and Organizational Behavior (4)

Certificate in Occupational Safety and Health

Certificate Requirements (33 units)

1. HSci 352. Environmental Health I (4)
2. HSci 353. Environmental Health II (5)
3. HSci 357. Hazardous Material Control (2)
4. HSci 363. Toxicology (2)
5. HSci 374. Basic Audiometry and Hearing Problems (4)
6. HSci 381. Occupational Safety (4)
7. HSci 476. Industrial Hygiene (4)
8. *Eight units chosen from:*
 - HSci 355. Health, Consumer and Environmental Law (4)
 - HSci 372. Environmental Administration and Environmental Impact Reporting (4)
 - HSci 451. Principles of Epidemiology (4)
 - HSci 477. Environmental Health Engineering (4)
 - HSci 650. Administration of Environmental Management Programs (4)

CERTIFICATION

Audiometrist Certification

Certification requirements (4 units)

The following course leads to a certificate of registration as a school audiometrist issued by the California State Department of Health Services:

- HSci 374. Basic Audiometry and Hearing Problems (4)
-

COURSE OFFERINGS IN HEALTH SCIENCE (HSci)

Lower Division

120. Health and Society: An Ecological Approach

Nature and function of health in society through study of the fundamental concepts of living systems and their implication in the processes of health and illness in the human organism. Major health problems are analyzed to contribute to the student's understanding of his or her role as an individual and as a member of the community. Four hours lecture and three hours laboratory.

Prerequisite: satisfactory score on the entry level mathematics examination. (5 units)

225. The Dietetic Profession

An overview of the professional development of dietetic education and scope of dietetic practice. (1 unit)

245. Foods

Basic principles and techniques of food selection and preparation. Includes food safety, legislation and consumer issues. Four hours lecture and three hours laboratory. (5 units)

Upper Division

301. Principles of Health Education for Health Educators

Foundations of the health education process. Role of a health educator in school, community, work and hospital settings, as well as consultant in health promotion activities. Course does not fulfill the state health education requirement. *Prerequisite: Health Science 120 or consent of instructor. (4 units)*

310. Health and Human Sexuality

Relationship between health and human sexuality with a theme of prevention of disease, disorder and dysfunction through education. *Prerequisite: Health Science 120 or consent of instructor. (4 units)*

332. Health Education in the Elementary School

Health education concepts and content applied specifically to grades K-6. Stresses communication and instruction in health education for the teacher/school nurse, emphasizing the uniqueness and personal nature of health; techniques of health education; recognition of health education and other aspects of normal health and diseases/disorders common in children. Conforms with the State Framework for Education in the Health Sciences. (4 units)

333. Health Education in the Secondary School

Health education concepts and content applied to grades 7-12. Stresses the personal nature of health instruction for the teacher/school nurse; the importance of individual responsibility in health related issues; characteristics of junior high and high school students and their relationship with health education techniques; recognition of health educational and other aspects of normal health and diseases/disorders common in adolescents and teenagers. Conforms with the State Framework for Education in the Health Sciences. (4 units)

334. School Health Administration and Planning

Philosophical framework and history of the school health education program, including organization, administration and legal aspects. Emphasis on the roles of school health administrators, teachers and nurses within the contexts of school health services, health instruction and healthful school living. Some aspects of college health programs will also be discussed. (2 units)

336. Alcohol and Drug Abuse Education

Analysis of the factors influencing human use or abuse of drugs, alcohol and other substances and their effects on the health and well-being of the individual, family and society. This course conforms to the State Framework for Education in the Health Sciences. This media-assisted course is delivered in a non-traditional format which employs video-taped lecture presentations supplemented

by periodic discussions and class meetings with the instructor. May not be taken for credit by students who have received credit for Health Science 364. (2 units)

342. Nutrition for Your Health

Application of basic nutrition principles to the prevention of disease through the life cycle; food choices that represent these principles; current trends, fads and fallacies in nutrition. May not be counted towards fulfilling requirements in the nursing major. May not be taken for credit by students who have received credit for Health Science 345 or 358. (4 units)

345. Food Science

Processing, storage, preservation and maturation of food and their effects on its composition, palatability, quality and safety. Four hours lecture and three hours laboratory. May not be taken for credit by students who have received credit for Health Science 342 or 358. *Prerequisites: Chemistry 206 or equivalent and Health Science 245. (5 units)*

352. Environmental Health I

Discussion of the physical, chemical and biological environments which impact on mankind's health and well-being. Principles of assessment, evaluation and control of environmental risks related to public health. Air, water, food and water pollution; ionizing radiation; land development; and environmental impacts. *Prerequisite: Health Science 120. (4 units)*

353. Environmental Health II

Methods of measuring and evaluating environmental and occupational health risks. Environmental health laws and regulations as well as compliance with current regulations. Laboratory and field experience for determining quality of air, water, food, soils and environments within buildings are included as well as instruction on noise control and hazardous waste disposal. Four hours lecture and three hours laboratory. *Prerequisites: Health Science 352, college-level biology and chemistry courses. (5 units)*

355. Health, Consumer and Environmental Law

Health laws and regulations, basis for their enactment and impact on facilities and programs, e.g. hospitals, health planning. Impact of environmental law on public health and mechanisms involved in protecting health consumers. Legal basis of the health care system and related aspects. (4 units)

356. Housing and Institutions

Basic health principles and environmental quality considerations associated with housing and institutions (for example, health care, educational, penal). Relationship of housing quality to physical, socio-economic and ethnic factors and their influence on health. (2 units)

357. Hazardous Material Control

Major methods for the control of hazardous wastes from generation through disposal, including disease, environmental and legal aspects of hazardous wastes as well as discussion of various disposal techniques. *Prerequisites: college-level biology and chemistry courses. (2 units)*

359. International Perspectives on Health

Study and comparison of patterns in personal and community health in developing and industrialized nations. Introduction to the impact of behavioral, ecological, economic and governmental factors on health status and health care organization and delivery. Discussion of national, regional, and international health problems and programs. *Prerequisites: Health Science 120 and one of the following: Anthropology 102, Psychology 100 or Sociology 100.* (4 units)

361. Principles of Accident Prevention

Ecological and medical aspects of accident prevention in residential, work, educational, medical and recreational environments. Legal aspects and governmental organizations involved in accident prevention. (2 units)

362. Principles of Nutrition

Physiologic and chemical roles of carbohydrates, lipids, proteins, vitamins, minerals and water in the human body. Factors affecting absorption, utilization and the need for nutrients. *Prerequisites: Chemistry 205, 206 and 207 or consent of instructor.* (4 units)

363. Toxicology

Principles of chemical toxicity and relationships to public health, including general principles, intoxication and disease, dose response tests, mechanisms of action and principles of antidotal therapy. Specific toxicologic studies as related to various food, drug, consumer, industrial and environmental problems. *Prerequisites: college-level biology and chemistry courses.* (2 units)

364. Drug and Alcohol Use and Abuse

Analysis of factors influencing human use or abuse of drugs, alcohol and other substances and their effects on the health and well-being of the individual, family and society. This course conforms with the State Framework for Education in the Health Sciences. May not be taken for credit by students who have received credit for Health Science 336. (4 units)

365. Nutrition Throughout the Life Cycle

Nutritional needs through the life cycle. Factors that affect cultural, ethnic and religious food preferences in individuals and groups. *Prerequisite: Health Science 362.* (4 units)

366. Occupational Health and the Work Environment

Identification, evaluation and control of hazards prevailing in the work environment. Factors affecting man in his working environment. Safety and health legislation. Field trips to selected industries. (2 units)

367. Human Disease Mechanisms

Ecological and medical aspects of human disease and the body's response to the disease process and the effects on normal function. *Prerequisites: Biology 223 and 224 and Health Science 120.* (4 units)

368. Diet and Disease I

Techniques of assessing, evaluating, planning and counseling to improve nutritional status. Role of dietary modifications in prevention and treatment of pathological conditions such as heart disease, cancer and diabetes. *Prerequisite: Health Science 365.* (4 units)

369. Diet and Disease II

Role of dietary modifications in the prevention and treatment of pathological conditions; includes diets for allergies, liver disease, kidney disease and gastrointestinal disorders. *Prerequisite: Health Science 368.* (4 units)

371. Community Health Services

Consideration and comparison of traditional and current programs in official and voluntary health agencies. (4 units)

372. Environmental Administration and Environmental Impact Reporting

Principles and procedures of environmental health administration, emphasizing the role of the government and the citizen. Review of federal, state and local legislation and guidelines essential in preparing an environmental impact report. (4 units)

374. Basic Audiometry and Hearing Problems

Examination of the anatomy and physiology of the auditory mechanism. Nature of the acoustic stimulus, hearing disorders, problems of the hard of hearing and pure-tone audiometry. This course leads to the certificate of registration as school audiometrist, granted by the California Department of Health Services upon successful completion. (4 units)

375. Diet and Disease

Role of dietary modifications in prevention and treatment of pathological conditions in man. *Prerequisite: Health Science 362 or equivalent.* (4 units)

381. Occupational Safety

Principles of industrial safety, including general principles; accident control; industrial, mechanical, electrical, chemical and flammability hazards; fire and explosion protection; accident investigation; industrial safety inspections; record keeping; safety training and emergency planning; methods of industrial safety management as a unifying theme. (4 units)

399. Community Service Project

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of department.* (Credit to be arranged: 1 or 2 units)

401. Land Use: Health Aspects

Health considerations and their impact on land-use patterns; health planning and environmental health aspects of land use with reference to environmental impact reports; land-use regulatory mechanisms relating to health. (4 units)

404. Women's Health Issues

Analysis of biological, psychological and sociocultural issues related to the health and health care of women. Emphasis on responsibilities of women in maintaining and promoting their health. (4 units)

415. Medical Care Organizations

Analysis of the organization of health and medical care services, resources, facilities, financial aspects and other related topics. *Prerequisite: Health Science 371 or consent of instructor.* (4 units)

421. Community Mental Health

Mental health care delivery system with emphasis on a community approach to prevailing problems and issues. Methods of evaluating community and school mental health education programs; survey of available resources. (4 units)

422. Health Planning

Health planning systems and procedures. *Prerequisite: Health Science 371 or consent of instructor.* (4 units)

423. Health and Wellness of Older Adults

The physiological, sociological and psychological aspects of the aging process. Disease prevention and health promotion concepts related to the quality of life of older adults. (4 units)

424. Health Facilities Planning

Activities in health care facilities planning, for example, architectural, engineering, contractual, environmental and other regulatory aspects. Facility planning processes, environmental forces, administrative coordination and historical development. (4 units)

425. Hearing Conservation and Noise Measurement

Principles of audiology and noise measurements and their application to environmental and industrial hearing conservation programs. (2 units)

427. Hospital Administration

Organization and administration of hospital facilities including planning and evaluation of services. Role of the hospital as part of the community. *Prerequisites: Health Science 371 and Management 302 or Psychology 302, or consent of instructor.* (4 units)

430. Food-Borne Illnesses and Their Prevention

Food-borne illnesses and food poisoning of microbial and chemical origins, causation and environmental control measures; proper environmental control measures; and proper environmental health conditions involved in storage, transportation and service of foods in order to minimize health dangers. *Prerequisite: Health Science 352.* (4 units)

435. Health and Human Development

Health needs and problems of children from prenatal development through adolescence. Appraisal, delivery of necessary services and childhood health promotion skills and practices. This course conforms with the State Framework for Education in the Health Sciences. (4 units)

440. Family Health Issues for Educators

Factors which influence the overall health status of today's family, e.g. nutrition, sexuality, drugs, stress and interpersonal relationships. This course conforms with the State Framework for Education in the Health Sciences. (2 units)

445. Community Nutrition

The role of public and private agencies in nutrition programs. Application of nutrition principles to the improvement of the health status of individuals and groups in the community. Emphasis on program planning, educational methods and evaluation. *Prerequisites: Health Science 301 and 369.* (4 units)

447. Advanced Nutrition

Evaluation and interpretation of current nutritional research findings. Application to dietetic practice. *Prerequisite: Health Science 369.* (4 units)

451. Principles of Epidemiology

Distribution and dynamics of human health problems; principles and procedures used to determine circumstances under which disease occurs or health prevails. The broadened scope of epidemiology is examined through case studies and community health approach. (4 units)

452. Special Topics in Health Science and Human Ecology

Examination of selected topics of current interest in health science. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (4 units)

455. Organization and Management of Long-Term Care Facilities

Examination of the professional administrative role and managerial concepts in long-term facilities, including nursing homes. *Prerequisites: Health Science 371 and Management 302 or Psychology 302, or consent of instructor.* (4 units)

458. Vector and Zoonotic Disease Control

Identification and control of vector-caused and zoonotic diseases. Discussion of natural and chemical methods of control and their impact on health and environmental quality. *Prerequisites: college-level biology and chemistry courses.* (4 units)

460. Strategic Planning and Marketing in the Health Care System

Strategy-oriented management planning process, basic approaches and methodologies employed in strategic planning and health care marketing; economic and political forces which give form and shape to the health care marketplace. (4 units)

461. Food Systems and Meal Management

Factors involved in management of foods including purchase, meal selection, preparation, service, management of time, money and energy in meal preparation. (4 units)

465. Food Service Production Management

Principles and procedures of menu planning, quantity food production, production scheduling, recipe adaptation, equipment operation, sanitation and formula costing. Three hours lecture and six hours laboratory. *Prerequisite: Health Science 345.* (5 units)

466. Food Service Procurement

Principles of purchasing in food service institutions. Selection and storage of foods and equipment. *Prerequisite: Health Science 465.* (4 units)

467. Food Service Systems Management

Distribution and management of resources in food service management: personnel, facilities, materials, time and money. *Prerequisites: Health Science 466 and Management 302 or Psychology 302.* (4 units)

470. Health Behavior

Theoretical foundation for the development, analysis and interpretation of individual and community influences on decisions which impact health status. Strategies for health behavior modification. (4 units)

471. Health Promotion: Program Planning and Evaluation

Introduction to the methods and processes of health promotion and change programs for both individuals and groups. Emphasis in program design, implementation and evaluation. *Prerequisite: Health Science 470.* (4 units)

474. Advanced Audiometry

Hearing tests, their objectives and uses for diagnostic and rehabilitative purposes. Techniques for administering auditory tests and the interpretation of their results emphasizing pure-tone audiometry. *Prerequisite: Health Science 374 or 425 or equivalent.* (4 units)

476. Industrial Hygiene

Toxic chemicals in the industrial environment, their influence on human health and their relationship to occupational medicine and the administration of industrial hygiene programs. *Prerequisites: college-level biology and chemistry courses, or consent of instructor.* (4 units)

477. Environmental Health Engineering

Methods used in designing systems which mitigate environmental contamination, including sewage, hazardous waste, solid waste, air pollution and the design of residential, institutional and commercial buildings. (4 units)

489. Pre-Field Study Practicum

Preparatory work for field assignments through classroom discussion, agency contacts and experience. (2 units)

490. Health Service Administration

Introduction and analysis of management theory and practice as they are applied in the mixed priority environment of the health services organization. Planning, organizing, staffing, directing and evaluating functions. Topics of discussion include strategy, decision, and the effective and efficient use of resources in home health, ambulatory, acute, long term and public health services. *Prerequisites: Accounting 211 or 311, Health Science 415 and Management 302 or Psychology 302.* (4 units)

492. Field Study: Action/Research in Human Ecology and Health

Individual and team field studies and research in agencies with activities relevant to career goals and interests. *Prerequisite: Health Science 489 or 491 or consent of instructor.*

A. (5 units)

B. (5 units)

C. *Corequisite: Health Science 492A.* Open only to students with an advisement area in environmental health and safety. Units awarded are not counted toward the 186 quarter-unit requirement for the major. (2.5 units)

D. *Corequisite: Health Science 492B.* Open only to students with an advisement area in environmental health and safety. Units awarded are not counted toward the 186 quarter-unit requirement for the major. (2.5 units)

493. Internship in Dietetics

Full-time clinical/agency internship taken in the senior year of course work. Health Science 493A, 493B and 493C together total 1200 hours.

A. (10 units)

B. (10 units)

C. (10 units)

525. Health Data Analysis and Demography

Introduction to analysis of health data using statistical procedures, development of skills for determining analytical techniques and procedures for interpretation and presentation of resultant data; examination of sources and evaluation of demographic data and relationships to such topics as fertility, morbidity, mortality, population projection, life tables and migration. *Prerequisites: Health Science 451 and Mathematics 305 or 350 or consent of instructor.* (4 units)

580. Pre-Professional Practice in Dietetics

Application of knowledge and skills in the Approved Pre-Professional Practice Program in dietetics (AP4). Students must enroll in this year long sequence: the first term in A and B, the second term in C and D, and the third term in E and F. *Prerequisites: bachelor's degree, completion of Didactic Program in Dietetics Plan V, acceptance into AP4, and consent of program director.*

A. (6 units)

B. (6 units)

C. (6 units)

D. (6 units)

E. (6 units)

F. (6 units)

590. Current Topics in Health Administration and Planning

Presentation and analysis of a particular issue or topic in health services administration or planning. May be repeated for credit as topics change. (2 units)

595. Independent Study

Research in special topics including library studies and/or laboratory work under the direction of a faculty member. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

598. Research Methodology in Health Science

Research methods and application to contemporary health and environmental problems. Health data analysis and development of skills for determining appropriate analytical techniques and procedures. *Prerequisite: Mathematics 305 or 350 or consent of instructor.* (4 units)

HISTORY

Department of History

Faculty Office Building, Room 146
880-5524

Bachelor of Arts

History - Track A
History - Track B

Teaching Credential Program

Single Subject

Minor

History

Master of Arts

Secondary Education - History Option
(Degree requirements can be found on Page 346.)

History has been called the "extension of memory" which enables one to utilize past experiences. The study of history nurtures and refines a broad spectrum of skills which make not only for good historians and teachers, but for good workers in many fields where men and women are sought who can read critically, analyze and write. In fact, while teaching and research have traditionally been the avenues history majors have followed, a multitude of career opportunities has always existed for those who like history but do not wish to become teachers. The skills history majors learn and refine in thinking, research, problem defining and solving, speaking and writing - in conjunction with skills acquired from other selected courses - ideally suit them for positions in the business world and with governmental agencies.

The History Department has developed a major around a core of five courses which presents a broad survey of American and European history, two courses in nonwestern history and an introduction to the nature of historical study. To meet the remainder of the requirements for the major, the student may choose from a wide spectrum of courses.

Currently, the department consists of faculty specializing in the areas of American, European, Asian and Latin American history.

The history major involves a two-track system, Track A and Track B. Track A is designed for students wishing to be recommended for a single subject credential in history. Track B can be used for all other fields open to History majors.

Lower-division courses may not be taken by students who have received credit for work in the subject in advance of the lower-division course, except where permission is granted by the department.

B.A. IN HISTORY (TRACK A)

Requirements (68 units)

Requirements for the B.A. in History - Track A:

- A. Hist 200. United States History to 1877 (4)
or
Eight units chosen from:
Hist 350. The American Colonies 1607-1783 (4)
Hist 351. The Evolution of American Democracy, 1783-1840 (4)
Hist 354. Civil War and Reconstruction (4)
- B. Hist 201. United States History, 1877 to the Present (4)
or
Eight units chosen from:
Hist 356. The United States, 1877-1917 (4)
Hist 357. The United States, 1917-1945 (4)
Hist 359. The United States Since 1945 (4)
- C. *Four units chosen from:*
Hist 334. Black History II: The American Experience (4)
Hist 350. The American Colonies 1607-1783 (4)
Hist 351. The Evolution of American Democracy, 1783-1840 (4)
Hist 354. Civil War and Reconstruction (4)
Hist 356. The United States, 1877-1917 (4)
Hist 357. The United States, 1917-1945 (4)
Hist 359. The United States Since 1945 (4)
Hist 421. Economic History of the United States (4)
Hist 422. 20th Century Americans (4)
Hist 513. Women in U.S. History (4)
Hist 540. Constitutional History of the United States (4)
Hist 556. Foreign Relations of the United States (4)
Hist 560. History of the American West (4)
Hist 565. Ethnic Minorities in American History (4)
Hist 566. Ethnic Minorities in the American Southwest: Past and Present (4)
- D. *Twelve units chosen from:*
Hist 380. History of World Religions (4)
Hist 589. Revolutions in History (4)
SSci 140. World Civilizations I, The Rise of Civilization (4)
SSci 142. World Civilizations II, The Civilizations of the East and West (4)
SSci 144. World Civilizations III, The Expansion of Europe (4)
- E. Hist 370B. History of California: California 1890-Present (2)
or
Hist 370BA. History of California: California 1890-Present (Self-paced) (2)

- F. Hist 300. Early Modern Europe, The Renaissance to 1815 (4)
or
Eight units as follows:
Hist 402. Renaissance and Reformation (4)
Hist 403. The Age of Absolutism and Enlightenment (4)
- G. Hist 301. Modern Europe, 1815 to the Present (4)
or
Eight units chosen from:
Hist 408. The Development of 20th Century Europe, 1890-1945 (4)
Hist 503. Europe in the Nuclear Age (4)
Hist 535. Studies in European National History (4)
- H. *Eight units chosen from:*
Hist 382. History of the Middle East (4)
Hist 390. History of Mexico (4)
Hist 430. China 1895-Present (4)
Hist 440. Japan 1868-Present (4)
Hist 469. Colonial Latin America (4)
Hist 470. Modern Latin America (4)
SSci 165. Regions and Peoples of the World (4)
SSci 300. Nonwestern World (4)
SSci 304. Contemporary Latin America (4)
- I. Hist 490. The Study of History (4)
- J. Twenty-two units of electives must be chosen from available upper-division history electives (with the approval of the departmental advisor, up to four units of upper-division course work in related fields may be counted toward the upper-division elective course requirement in the major).

Note: Four units of every eight units chosen in lieu of History 200, 201, 300 and 301 in categories A, B, F and G may count as electives in category J for a maximum of sixteen units.

B.A. IN HISTORY (TRACK B)

Requirements (60 units)

Requirements for the B.A. in History - Track B:

- A. Hist 200. United States History to 1877 (4)
or
Eight units chosen from:
Hist 350. The American Colonies 1607-1783 (4)
Hist 351. The Evolution of American Democracy, 1783-1840 (4)
Hist 354. Civil War and Reconstruction (4)
- B. Hist 201. United States History, 1877 to the Present (4)
or

- Eight units chosen from:*
Hist 356. The United States, 1877-1917 (4)
Hist 357. The United States, 1917-1945 (4)
Hist 359. The United States Since 1945 (4)
- C. Hist 300. Early Modern Europe, the Renaissance to 1815 (4)
or
Eight units as follows:
Hist 402. Renaissance and Reformation (4)
Hist 403. The Age of Absolutism and Enlightenment (4)
- D. Hist 301. Modern Europe, 1815 to the Present (4)
or
Eight units chosen from:
Hist 408. The Development of 20th Century Europe, 1890-1945 (4)
Hist 503. Europe in the Nuclear Age (4)
Hist 535. Studies in European National History (4)
- E. Hist 490. The Study of History (4)
- F. *Eight units chosen from:*
Hist 331. Black History I: The African Experience (4)
Hist 382. History of the Middle East (4)
Hist 390. History of Mexico (4)
Hist 430. China 1895-Present (4)
Hist 440. Japan 1868-Present (4)
Hist 469. Colonial Latin America (4)
Hist 470. Modern Latin America (4)
- G. *Four units chosen from:*
SSci 140. World Civilizations I, The Rise of Civilization (4)
SSci 142. World Civilizations II, The Civilizations of the East and West (4)
SSci 144. World Civilizations III, The Expansion of Europe (4)

- H. Twenty-eight units of other upper-division course work in history. With the approval of the departmental advisor, up to eight units of upper-division course work in related fields may be counted toward the upper-division course requirement in history. Students are encouraged to take a complete sequence of courses in a foreign language appropriate to their area interests in the history major.

Note: Four units of every eight units chosen in lieu of History 200, 201, 300 and 301 in categories A, B, C and D may count as electives in category H for a maximum of sixteen units.

TEACHING CREDENTIAL PROGRAM

Students wishing to be recommended for a single subject teaching credential in history must complete Track A of the Bachelor of Arts in History

as well as certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program, or specific requirements for the single subject credential see Page 147 or contact the School of Education Credentials Office.

MINOR IN HISTORY

Requirements (32 units)

Requirements for a minor in History:

1. Requirements for a minor in history include thirty-two units, of which twenty-four units must be upper-division, to include twelve units as follows:
 - A. *Four units chosen from American history:*
 - Hist 312. Historical Archaeology (4)
 - Hist 325A. American Military Experience: 1860-1918 (2)
 - Hist 325B. American Military Experience: 1919-1942 (2)
 - Hist 325C. American Military Experience: 1942-Present (2)
 - Hist 334. Black History II: The American Experience (4)
 - Hist 350. The American Colonies 1607-1783 (4)
 - Hist 351. The Evolution of American Democracy, 1783-1840 (4)
 - Hist 354. Civil War and Reconstruction (4)
 - Hist 356. The United States, 1877-1917 (4)
 - Hist 357. The United States, 1917-1945 (4)
 - Hist 359. The United States Since 1945 (4)
 - Hist 370A. History of California: California to 1890 (2)
 - Hist 370B. History of California: California 1890-Present (2)
 - Hist 370BA. History of California: California 1890-Present (Self-Paced) (2)
 - Hist 391. Chicano History (4)
 - Hist 395. Topics in History (4)
 - Hist 396. Topics in History (2)
 - Hist 421. Economic History of the United States (4)
 - Hist 422. 20th Century Americans (4)
 - Hist 513. Women in U.S. History (4)
 - Hist 540. Constitutional History of the United States (4)
 - Hist 556. Foreign Relations of the United States (4)
 - Hist 560. History of the American West (4)
 - Hist 565. Ethnic Minorities in American History (4)
 - B. *Four units chosen from European history:*
 - Hist 300. Early Modern Europe, The Renaissance to 1815 (4)
 - Hist 301. Modern Europe, 1815 to the Present (4)
 - Hist 322. The Classical World (4)
 - Hist 395. Topics in History (4)
 - Hist 396. Topics in History (2)
 - Hist 402. Renaissance and Reformation (4)
 - Hist 403. The Age of Absolutism and Enlightenment (4)
 - Hist 408. The Development of 20th Century Europe, 1890-1945 (4)
 - Hist 500. Tudor and Stuart England (4)
 - Hist 503. Europe in the Nuclear Age (4)
 - Hist 535. Studies in European National History (4)
 - C. *Four units chosen from nonwestern history:*
 - Hist 331. Black History I: The African Experience (4)
 - Hist 380. History of World Religions (4)
 - Hist 382. History of the Middle East (4)
 - Hist 390. History of Mexico (4)
 - Hist 395. Topics in History (4)
 - Hist 396. Topics in History (2)
 - Hist 430. China 1895-Present (4)
 - Hist 440. Japan 1868-Present (4)
 - Hist 469. Colonial Latin America (4)
 - Hist 470. Modern Latin America (4)
 - Hist 589. Revolutions in History (4)

DEPARTMENTAL HONORS

Departmental honors will be awarded upon graduation to students majoring in history who have:

1. Earned a 3.5 grade-point average in all history courses attempted;
2. Completed at least half of all work in history at this university;
3. Been recommended for departmental honors by the history faculty.

MASTER OF ARTS

The University offers a Master of Arts in Secondary Education, with an option in history, for secondary teachers. Details on this graduate program may be secured from the Department of History or the School of Education.

COURSE OFFERINGS IN HISTORY (Hist)

Lower Division

200. United States History to 1877

Survey of the history of the United States from the colonial beginnings to 1877. This course meets the state code requirement in U.S. history. It also meets the state code requirement in the U.S. Constitution when taken in conjunction with History 201. (4 units)

201. United States History, 1877 to the Present

Survey of the history of the United States from 1877 to the present. This course meets the state code requirement in U.S. history. It also meets the state code requirement in the U.S. Constitution when taken in conjunction with History 200. (4 units)

Upper Division

300. Early Modern Europe, The Renaissance to 1815

Institutions, culture, and political development of Europe from the Renaissance to the end of the Napoleonic Wars. (4 units)

301. Modern Europe, 1815 to the Present

Institutions, culture, and political development of Europe from the congress of Vienna to the present. (4 units)

312. Historical Archaeology

Use of archaeological methods to study historic peoples. Historical and archaeological methods and their results. Focus will be primarily on North America from A.D. 1492 to modern times. (Also offered as Anthropology 312. Students may not receive credit for both.) (4 units)

320. History of Ancient Greece

Greek history from the Minoan and Mycenaean civilizations to the reign of the Roman Emperor Justinian in A.D. 527-565. May not be taken for credit by students who have received credit for History 322. (4 units)

321. History of Rome

Roman history from earliest times to the end of the Roman Empire in the West. May not be taken for credit by students who have received credit for History 322. (4 units)

325. American Military Experience

American military development from the Civil War to the present day.

- A. 1860-1918 (Also offered as Military Science 325A. Students may not receive credit for both.) (2 units)
- B. 1919-1942 (Also offered as Military Science 325B. Students may not receive credit for both.) (2 units)
- C. 1942-Present (Also offered as Military Science 325C. Students may not receive credit for both.) (2 units)

331. Black History I: The African Experience

Origin of sub-Saharan cultures and development of African civilizations through the 18th century; special emphasis on West Africa and the region's relationship to black people of North America. (4 units)

334. Black History II: The American Experience

Black people in America from the 17th Century to the present day. (4 units)

350. The American Colonies, 1607-1783

The thirteen colonies from European origins to the attainment of independence. (4 units)

351. The Evolution of American Democracy, 1783-1840

Analysis of the development of American society, politics and economy during the Confederation, Federalist, Jeffersonian and Jacksonian Eras. (4 units)

354. Civil War and Reconstruction

Background and causes of the Civil War and the problems of Reconstruction. (4 units)

356. The United States, 1877-1917

Transformation of the nation between the end of Reconstruction and entrance into World War I. (4 units)

357. The United States, 1917-1945

Principal developments in American life from World War I to the end of World War II. (4 units)

359. The United States Since 1945

Major changes in the United States since the end of World War II. (4 units)

370. History of California

Political, economic, social and cultural development of California from Spanish times to the present.

- A. California to 1890. (2 units)
- B. California 1890-Present. Successful completion of this segment of the course will meet the state code requirement in state and local government. A self-paced version of this course (History 370BA) is also available. Students may not receive credit for both. (2 units)

380. History of World Religions

Historical development of Judaism, Hinduism, Buddhism, Christianity and Islam. A self-paced version of this course (History 380A) is also available. Students may not receive credit for both. (4 units)

382. History of the Middle East

History of the Middle East from the time of Muhammad the Prophet to the modern day. (4 units)

390. History of Mexico

Survey of Mexican history from early Indo-American civilizations to the present. (4 units)

391. Chicano History

Mexican-Americans in the United States from the Colonial period to the present, with special emphasis on the Southwest. (4 units)

395. Topics in History

Examination of topics of interest in history. May be repeated for credit as topics change. (4 units)

396. Topics in History

Examination of topics of interest in history. May be repeated for credit as topics change. (2 units)

399. Community Service Project

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of four units. No more than four units of credit for community service project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: a*

project proposal must be approved by the department in advance of enrollment. (Credit to be arranged: 1 or 2 units)

400. Early Medieval Europe

Survey of the political, economic, and social transformation of Europe from the fall of Rome through the 11th century. (4 units)

401. Late Medieval Europe

Survey of the political, economic, and social transformation of Europe during the high Middle Ages, from the 11th century to the 14th century. (4 units)

402. Renaissance and Reformation

Principal political, economic, intellectual and religious developments in Europe from about 1300 to 1648. (4 units)

403. The Age of Absolutism and Enlightenment

The period from 1648 to 1789, emphasizing the development of the modern state, the new scientific movement and the growth of revolutionary ideas. (4 units)

408. The Development of 20th Century Europe, 1890-1945

Europe from the turn of the century period to the end of World War II. (4 units)

421. Economic History of the United States

Economic history of the United States from the founding of the colonies to the present. (Also offered as Economics 421. Students may not receive credit for both.) (4 units)

422. 20th Century Americans

Biographical focus on key American leaders who affected the course of 20th century American history. (4 units)

430. China 1895-Present

Institutions, culture, society, economy and political development of China from the Sino-Japanese War (1894-95) to the present. (4 units)

440. Japan 1868-Present

Institutions, culture, society, economy and political development of Japan from the Meiji Restoration to the present. (4 units)

469. Colonial Latin America

Survey of Spanish colonial system beginning with discovery of America and continuing to the independence period. (4 units)

470. Modern Latin America

Survey of the development and interaction of modern Latin American institutions in the major nations of Central and South America. (4 units)

490. The Study of History

Introduction to the nature of history through a consideration of the problems of historical knowledge and of the works of major historians of the past. (4 units)

500. Tudor and Stuart England

Principal political, social, economic and religious developments of England from 1485 to 1688. (4 units)

503. Europe in the Nuclear Age

Europe since 1945, emphasizing the search for political and economic unity and evolving relations with the two nuclear super powers. (4 units)

513. Women in U.S. History

History of women in the United States from colonial times to the present. Special emphasis on demographic changes, labor, the family, and ethnic and class distinctions among women. (4 units)

535. Studies in European National History

Historical development of individual European nations (for example, Germany, France, Great Britain, Russia, Spain) in the modern period. May be repeated for credit as topics change. (4 units)

540. Constitutional History of the United States

American constitutional development from English and European origins to the present day. This course meets the state code requirement in U.S. history and U.S. Constitution. *Prerequisite: History 200 or 201, or Political Science 410 or consent of instructor.* (4 units)

556. Foreign Relations of the United States

Survey of American foreign policy with special emphasis on America's rise to world power in the 20th century. (4 units)

560. History of the American West

Survey of the western expansion of the American nation. (4 units)

565. Ethnic Minorities in American History

Historical perspective of the major ethnic groups, their efforts to assimilate and their interaction with American society. (4 units)

566. Ethnic Minorities in the American Southwest: Past and Present

A comparative approach to the historical and contemporary experiences of Chicanos, Indians, Asians and other ethnic minorities in the Southwestern/Western United States. (4 units)

575. Internship in History

Supervised work and study in work situations involving historical skills. May be repeated once for credit. *Prerequisites: major in history; one introductory statistics course; Information Management 220, and Accounting 311; or consent of the department.* (4 units)

589. Revolutions in History

Nature and causes of revolutions from an historical as well as a broad social science perspective; both revolutions and revolutionists from different parts of the world are examined. (4 units)

595. Independent Study

Special topics in historical research. A total of four units in History 595 may be applied toward the history major and eight units in History 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Proseminar in History

Survey of the concepts and ideas that historians study, how they approach the study of historical phenomena, and what methods they employ in their analysis. The

seminar will include discussion of the relationships of the discipline to other social science disciplines and the unique contributions history has made to knowledge in general and in the social sciences. *Prerequisite: consent of instructor.* (4 units)

603. Seminar in Modern Military History

Analyses of selected military operations since World War II. May be repeated once for credit, as topics change, with consent of student's advisor. (4 units)



HUMAN DEVELOPMENT

Department of Psychology

*Physical Sciences Building, Room 219
880-5570*

Bachelor of Arts

Human Development
Child Development Track
Gerontology Track
General Track

The human development major is an interdisciplinary program of study of the processes and changes that characterize human development. Course offerings are drawn primarily from the departments of psychology, sociology, anthropology and biology with electives available from other departments, including education, and from the field of ethnic studies. Consistent with the interdisciplinary field of life-span development, the major provides the important advantage of promoting an holistic approach to development that no single discipline can offer. Students selecting the Bachelor of Arts degree in Human Development, with the study of people as its major theme, typically choose careers related to working with people when they graduate. The major prepares graduates to work in counseling and guidance, personnel, teaching, probation or health delivery settings.

Three tracks are available for students working toward a Bachelor of Arts in Human Development: child development, gerontology, and a general track. The major also provides academic preparation for graduate-level training in various fields relating to human development, such as psychology, social work, law, education and anthropology. Human development majors who are interested in pursuing graduate level training in human or child development, psychology, gerontology, or a related field should plan on taking at least one research methodology course as a part of their degree program.

B.A. IN HUMAN DEVELOPMENT

Child Development Track Requirements (85 units)

The child development track is designed to provide students with a solid background in child development that can serve as preparation for occupations or professions that call for child development specialists (i.e., early childhood education, infant and toddler care, and other positions involving work with young children and their families), or

for graduate level training in related fields. Students selecting this option may also earn the Children's Center Instructional and/or Supervisory Permit(s). (See the human development coordinator for details.)

Requirements for the B.A. in Human Development—Child Development Track:

Lower-division requirements (32 units)

1. Biol 100. Topics in Biology (5)
2. HD 280. Early Childhood Development (5)
or
Psyc 280. Early Childhood Development (5)
3. HD 281. The Child in the Preschool (6)
4. Psyc 100. Introduction to Psychology (4)
5. Psyc 201. Developmental Psychology (4)
6. Psyc 270. Infant and Toddler Development (4)
7. Soc 100. The Study of Society (4)

Upper-division requirements (37 units)

1. Anth 330. Cross-Cultural Child-Rearing Practices (4)
or
Anth 331. Anthropology of Human Development (4)
2. Biol 315. Introduction to Human Embryology (4)
or
Biol 316. Human Genetics (4)
3. One of the following:
ESpe 530. Psychology and Education of Exceptional Individuals (4)
Psyc 350. Development of Exceptional Children (4)
Psyc 391. Psychopathology of Childhood (4)
4. One of the following:
HD 575. Internship (4)
HD 585. Student Teaching in Early Childhood Development (4-10)
5. HD 580. Advanced Seminar in Human Development (4)
6. Psyc 358. Cognitive Development (4)
or
Psyc 384. Personality and Social Development (4)
7. Psyc 303. Parenting and Family Relations (4)
or
Soc 340. Sociology of the Family (4)
8. Psyc 400. Child Assessment (5)
9. Soc 339. Socialization (4)

Statistics/Methodology

A minimum of 4 units chosen from:

- Psyc 210. Psychological Statistics (5)
- SSci 215. Statistics for the Social Sciences (4)
- Soc 308. Introduction to Sociological Research (6)

Electives (12 units; of which at least 8 must be upper-division):

- Anth 330. Cross-Cultural Child-Rearing Practices (4)
 Anth 331. Anthropology of Human Development (4)
 Biol 315. Introduction to Human Embryology (4)
 Biol 316. Human Genetics (4)
 Educ 200. Introduction to Careers in Education (2)
 Educ 332. Psychological Foundations of Education (4)
 EELB 331. Growth and Development of Young Children (4)
 or
 Psyc 320. Growth and Development of Young Children (4)
 EELB 340. Elementary Curriculum and Methods I (4)
 EELB 345A. Reading in the Elementary School: Multiple Subject (4)
 EELB 345B. Reading in the Elementary School: Bilingual (4)
 EELB 536. Teaching in a Multicultural Society (4)
 ESpe 530. Psychology and Education of Exceptional Individuals (4)
 Eng 320. Children's Literature (4)
 HD 282. Early Childhood Programs (6)
 HD 302. History of Childhood (4)
 HD 303. Theories of Play (4)
 HD 305. Multicultural Child Development (2)
 HSci 342. Nutrition for Your Health (4)
 HSci 435. Health and Human Development (4)
 HSci 440. Family Health Issues for Educators (2)
 Mus 410. Music in the Elementary Schools (2)
 PSci 450. Political Socialization (4)
 Psyc 303. Parenting and Family Relations (4)
 Psyc 305. Psycholinguistics (4)
 Psyc 311. Introduction to Experimental Psychology (6)
 Psyc 350. Development of Exceptional Children (4)
 Psyc 358. Cognitive Development (4)
 Psyc 384. Personality and Social Development (4)
 Psyc 391. Psychopathology of Childhood (4)
 Psyc 431. Experimental Psychology: Developmental (6)
 Psyc 582. Advanced Seminar in Developmental Psychology (4)
 Soc 320. The Sociology of Child Abuse (4)
 Soc 340. Sociology of the Family (4)
 Soc 341. Marriage and Family Among Blacks (4)

- Soc 342. The Chicano Family (4)
 Soc 352. Juvenile Offender (4)
 Soc 354. Deviant Behavior (4)
 Soc 410. Racial and Cultural Minorities (4)
 TA 483. Children's Theater (4)

Courses taken as electives may not have been used to satisfy upper-division requirements.

B.A. IN HUMAN DEVELOPMENT

Gerontology Track

Requirements (85 units)

The gerontology track is designed to prepare graduates for careers related to serving the needs of adults or the elderly, or as preparatory work for graduate level study in related fields. Students selecting this track may also earn a certificate in Applied Gerontology (see Page 291 or a human development advisor for details).

Requirements for the B.A. in Human Development—Gerontology Track:

Lower-division requirements (17 units)

1. Biol 100. Topics in Biology (5)
2. Psyc 100. Introduction to Psychology (4)
3. Psyc 201. Developmental Psychology (4)
4. Soc 100. The Study of Society (4)

Upper-division requirements (52 units)

1. Anth 331. Anthropology of Human Development (4)
2. Biol 316. Human Genetics (4)
3. HD 460. Gerontological Assessment (4)
4. HD 575. Internship (4)
5. HD 580. Advanced Seminar in Human Development (4)
6. HSci 423. Health and Wellness of Older Adults (4)
7. Psyc 303. Parenting and Family Relations (4)
or
Soc 340. Sociology of the Family (4)
8. Psyc 329. Psychology of Adulthood and Aging (4)
9. Psyc 358. Cognitive Development (4)
10. Psyc 384. Personality and Social Development (4)
11. Psyc 390. Abnormal Psychology (4)
or
Soc 354. Deviant Behavior (4)
12. Soc 330. Social Gerontology (4)
13. Soc 339. Socialization (4)

Statistics/Methodology

A minimum of four units chosen from:

- Psyc 210. Psychological Statistics (5)
 SSci 215. Statistics for the Social Sciences (4)
 Soc 308. Introduction to Sociological Research (6)

Electives (12 units)

- Anth 333. Sex and Gender in Cross-Cultural Perspective (4)
- Biol 314. Biology of Human Sexuality (4)
- HSci 310. Health and Human Sexuality (4)
- HSci 342. Nutrition for Your Health (4)
- HSci 455. Organization and Management of Long-Term Care Facilities (4)
- HSci 470. Health Behavior (4)
- Psyc 301. Psychology of Human Sexuality (4)
- Psyc 303. Parenting and Family Relations (4)
- Psyc 311. Introduction to Experimental Psychology (6)
- Psyc 331. The Psychology of Women (4)
- Psyc 340. Prejudice, Race, and Racism (4)
- Psyc 345. Cross-Cultural Psychology (4)
- Psyc 390. Abnormal Psychology (4)
- Psyc 431. Experimental Psychology: Developmental (6)
- Psyc 582. Advanced Seminar in Developmental Psychology (4)
- Soc 340. Sociology of the Family (4)
- Soc 341. Marriage and Family Among Blacks (4)
- Soc 342. The Chicano Family (4)
- Soc 344. Sex Roles: The Life Cycle (4)
- Soc 354. Deviant Behavior (4)
- Soc 410. Racial and Cultural Minorities (4)

Courses taken as electives may not have been used to satisfy upper-division requirements.

B.A. IN HUMAN DEVELOPMENT

General Track Requirements (85 units)

This track is designed for students who wish to obtain a broad interdisciplinary background of human development across the life span.

Requirements for the B.A. in Human Development—General Track:

Lower-division requirements (17 units)

1. Biol 100. Topics in Biology (5)
2. Psyc 100. Introduction to Psychology (4)
3. Psyc 201. Developmental Psychology (4)
4. Soc 100. The Study of Society (4)

Upper-division requirements (32 units)

1. Anth 331. Anthropology of Human Development (4)
2. Biol 315. Introduction to Human Embryology (4)
- or Biol 316. Human Genetics (4)
3. HD 575. Internship (4)
4. HD 580. Advanced Seminar in Human Development (4)
5. Psyc 303. Parenting and Family Relations (4)
- or Soc 340. Sociology of the Family (4)

6. Psyc 358. Cognitive Development (4)
7. Psyc 384. Personality and Social Development (4)
8. Soc 339. Socialization (4)

A minimum of twelve units chosen from:

1. EE1B 331. Growth and Development of the Young Child (4)
- or Psyc 320. Psychology of Middle Childhood (4)
2. HD 280. Early Childhood Development (5)
- or Psyc 280. Early Childhood Development (5)
3. Psyc 270. Infant and Toddler Development (4)
4. Psyc 328. Psychology of Adolescent Development (4)
5. Psyc 329. Psychology of Adulthood and Aging
- or Soc 330. Social Gerontology (4)

Statistics/Methodology

A minimum of 4 units chosen from:

- Psyc 210. Psychological Statistics (5)
- SSci 215. Statistics for the Social Sciences (4)
- Soc 308. Introduction to Sociological Research (6)

Electives (20 units; of which at least sixteen must be upper division):

- Anth 330. Cross-Cultural Child-Rearing Practices (4)
- Anth 333. Sex and Gender in Cross-Cultural Perspective (4)
- Biol 314. Biology of Human Sexuality (4)
- Biol 315. Introduction to Human Embryology (4)
- Biol 316. Human Genetics (4)
- Educ 332. Psychological Foundations of Education (4)
- EE1B 331. Growth and Development of the Young Child (4)
- or Psyc 320. Psychology of Middle Childhood (4)
- HD 280. Early Childhood Development (5)
- or Psyc 280. Early Childhood Development (5)
- HD 281. The Child in the Preschool (6)
- HD 282. Early Childhood Programs (6)
- HD 302. History of Childhood (4)
- HD 303. Theories of Play (4)
- HD 305. Multicultural Child Development (2)
- HD 460. Gerontological Assessment (4)
- HSci 310. Health and Human Sexuality (4)
- HSci 342. Nutrition for Your Health (4)
- HSci 364. Drug and Alcohol Use and Abuse (4)
- HSci 423. Health and Wellness of Older Adults (4)

- HSci 435. Health and Human Development (4)
 HSci 440. Family Health Issues for Educators (2)
 HSci 470. Health Behavior (4)
 PSci 450. Political Socialization (4)
 Psyc 270. Infant and Toddler Development (4)
 Psyc 301. Psychology of Human Sexuality (4)
 Psyc 303. Parenting and Family Relations (4)
 Psyc 305. Psycholinguistics (4)
 Psyc 311. Introduction to Experimental Psychology (6)
 Psyc 328. Psychology of Adolescent Development (4)
 Psyc 329. Psychology of Adulthood and Aging (4)
 Psyc 331. The Psychology of Women (4)
 Psyc 340. Prejudice, Race and Racism (4)
 Psyc 345. Cross-Cultural Psychology (4)
 Psyc 350. Development of Exceptional Children (4)
 Psyc 390. Abnormal Psychology (4)
 Psyc 391. Psychopathology of Childhood (4)
 Psyc 400. Child Assessment (5)
 Psyc 431. Experimental Psychology: Developmental (6)
 Psyc 582. Advanced Seminar in Developmental Psychology (4)
 Soc 320. The Sociology of Child Abuse (4)
 Soc 330. Social Gerontology (4)
 Soc 340. Sociology of the Family (4)
 Soc 341. Marriage and Family Among Blacks (4)
 Soc 342. The Chicano Family (4)
 Soc 344. Sex Roles: The Life Cycle (4)
 Soc 352. Juvenile Offender (4)
 Soc 354. Deviant Behavior (4)
 Soc 410. Racial and Cultural Minorities (4)

Courses taken as electives may not have been used to satisfy upper-division requirements.

NOTE: Occasionally topic and seminar courses are offered in various disciplines throughout the University that would be relevant for human development majors. Students interested in receiving elective credit toward the major for these courses should contact the coordinator of the human development program.

COURSE OFFERINGS IN HUMAN DEVELOPMENT (HD)

Lower Division

280. Early Childhood Development

Physical, social, emotional, and intellectual development of the young child from ages 2 to 5. Laboratory involves observation of young children. Four hours lecture and

three hours laboratory. (Also offered as Psychology 280. Students may not receive credit for both.) May not be taken for credit by students who have received credit for Psychology 325. *Prerequisite: Psychology 100.* (5 units)

281. The Child in the Preschool

Child development theories and their implications for communicating and interacting with young children, for guiding child behavior, and for designing early childhood settings. Laboratory involves supervised experience in child development setting. Four hours lecture and six hours laboratory. *Prerequisite: Human Development 280 or Psychology 280.* (6 units)

282. Early Childhood Programs

Methods, materials, and activities in early childhood education. Laboratory involves planning, implementing, and evaluating curriculum activities in a preschool setting. Four hours lecture and six hours laboratory. *Prerequisite: Human Development 281.* (6 units)

Upper Division

302. History of Childhood

Historical survey of childhood within the contexts of family and society. (4 units)

303. Theories of Play

Interdisciplinary survey of theories of play and their applications to child development. *Prerequisite: Human Development 280 or Psychology 280.* (4 units)

305. Multicultural Child Development

Theory and applications of cultural and ethnic diversity for early childhood settings. *Prerequisite: Human Development 280 or Psychology 280.* (2 units)

460. Gerontological Assessment

Theory, issues, and procedures in assessment of physical, cognitive, social, and emotional functioning in late adulthood. *Prerequisites: Health Science 423, Psychology 329, Sociology 330 and Psychology 210 (or equivalent).* (4 units)

575. Internship

Supervised work and study in private and public organizations. May be repeated once for credit. (Only four units may be applied to upper-division credit in the Human Development major.) Graded credit/no credit. *Prerequisites: consent of instructor and department.* (4 units)

580. Advanced Seminar in Human Development

Theory and research on physical, social, psychological and cultural aspects of human development from an interdisciplinary perspective. *Prerequisites: senior standing, twelve units of course work in human growth and development, and consent of instructor.* (4 units)

585. Student Teaching in Early Childhood Education

Supervised teaching in early childhood education programs. Graded credit/no credit. *Prerequisites: Human Development 282, consent of instructor and department.* (Credit to be arranged: 4 to 10 units)

HUMAN SERVICES

Department of Sociology

Faculty Office Building, Room 123
880-5541

Bachelor of Arts

Human Services

Human services is an interdisciplinary, career-oriented degree program drawing from sociology, psychology, ethnic studies and health science. It is particularly suited to the paraprofessional person whose work role is that of a generalist who must serve in a variety of work settings and deal with a variety of human needs. Consequently, courses have been selected and designed to meet minimum general occupational needs of human services personnel.

B.A. IN HUMAN SERVICES

Requirements (73 units)

Requirements for the B.A. in Human Services:

Lower-division requirements (13 units)

1. HSci 120. Health and Society: An Ecological Approach (5)
2. Psyc 100. Introduction to Psychology (4)
3. Soc 100. The Study of Society (4)

Human Development and Behavior (20 units)

1. Psyc 201. Developmental Psychology (4)
2. Psyc 390. Abnormal Psychology (4)
3. Soc 340. Sociology of the Family (4)
4. Soc 354. Deviant Behavior (4)
5. Soc 410. Racial and Cultural Minorities (4)
or
Psyc 345. Cross-Cultural Psychology (4)

Delivery of Human Services (8 units)

1. HSci 371. Community Health Services (4)
or
Psyc 387. Community Psychology (4)
2. Soc 434. Community Organization (4)

Human Services Practice (16 units)

1. *Sixteen units chosen from:*
Anth 330. Cross-Cultural Child-Rearing Practices (4)
HSci 301. Principles of Health Education for Health Educators (4)
HSci 342. Nutrition for Your Health (4)
HSci 364. Drug and Alcohol Use and Abuse (4)

- HSci 404. Women's Health Issues (4)
HSci 423. Health and Wellness of Older Adults (4)
HSci 440. Family Health Issues for Educators (2)
HSci 470. Health Behavior and Community Health Education (4)
HSci 489. Pre-Field Study Practicum (2)
Psyc 329. Psychology of Adulthood and Aging (4)
Psyc 331. The Psychology of Women (4)
Psyc 333. Drugs and Behavior (4)
Psyc 351. Behavior Modification: Principles and Applications (4)
Psyc 391. Psychopathology of Childhood (4)
Soc 318. Social Welfare Policies and Services (4)
Soc 320. The Sociology of Child Abuse (4)
Soc 330. Social Gerontology (4)
Soc 344. Sex Roles: The Life Cycle (4)
Soc 352. Juvenile Offender (4)
Soc 355. Medical Sociology (4)
Soc 356. Sociology of Mental Illness (4)

Practice Methods (4 units)

1. Psyc 315. Communication Processes (4)
or
Soc 484. Social Casework (4)

Research Skills (4 units)

1. *A minimum of four units chosen from:*
HSci 525. Health Data Analysis and Demography (4)
HSci 598. Research Methodology in Health Science (4)
Psyc 311. Introduction to Experimental Psychology (6)
Soc 308. Introduction to Sociological Research (6)

Internship/Field Study (8 units)

A two quarter sequence of internship to be selected in consultation with an advisor to correspond with previous course work and career goals.
Note: All internship/field study units must be taken in the same department.

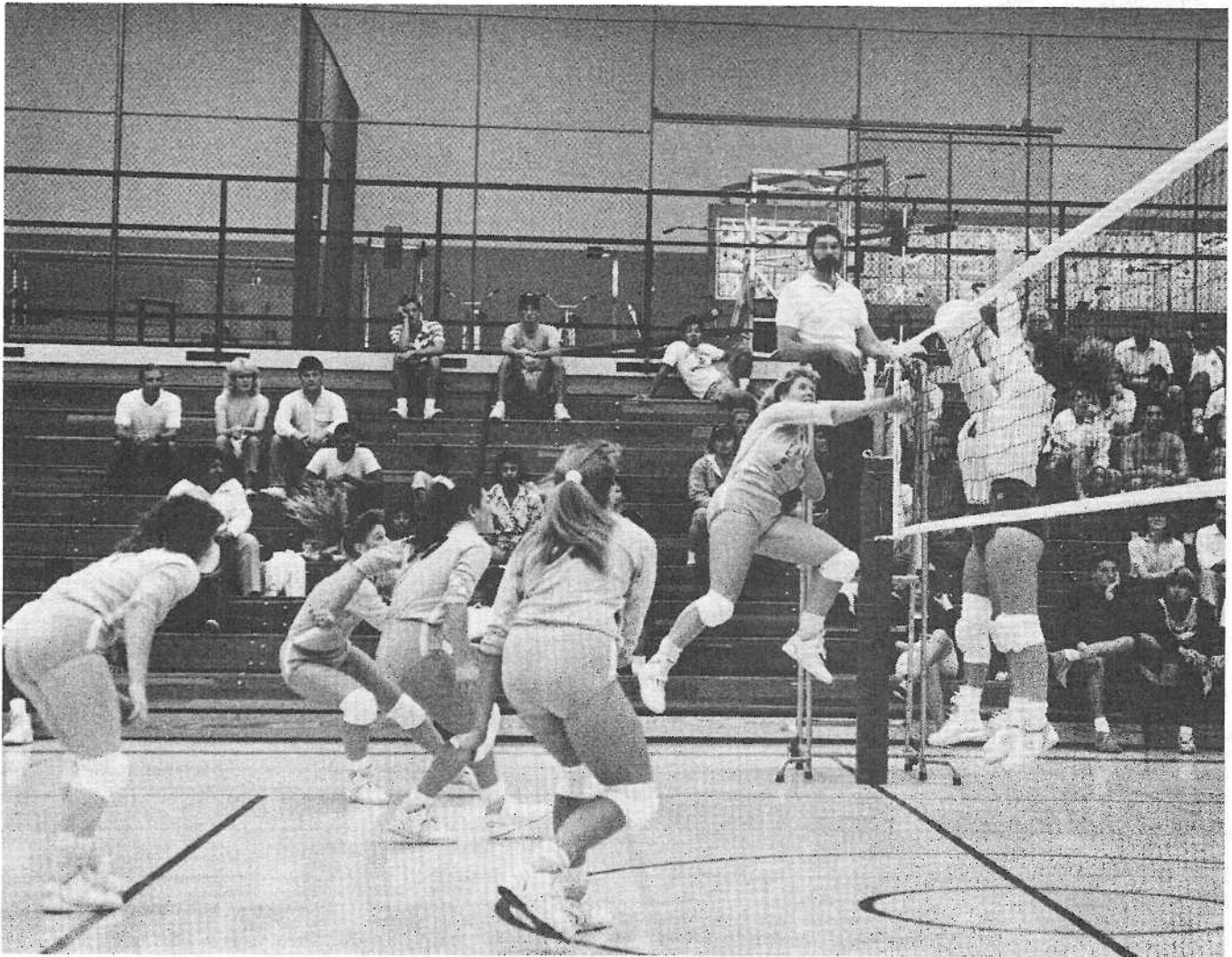
1. *A minimum eight units chosen from:*
A. HSci 492A. Field Study: Action/Research in Human Ecology and Health (5)
HSci 492B. Field Study: Action/Research in Human Ecology and Health (5)
B. Psyc 575. Internship in Psychology (4) for a total of (8)
C. Soc 575. Internship in Sociology and Social Work (5) for a total of (10)

HONORS IN THE MAJOR

Students majoring in human services are eligible to receive honors in human services at graduation if the following conditions are met:

1. At least one-half of the course work required by the major is completed at this university;
2. At least a 3.5 GPA in the major, both at this university and overall;
3. An overall undergraduate GPA of 3.0 or better;
4. Completion of a senior project approved in advance by the program coordinator.

Students interested in receiving this recognition must initiate the process by making a formal application with the Sociology Department.



HUMANITIES

School of Humanities

Pfau Library Building, Room 239

880-5800 or

Pfau Library Building, Room 231 or 242

Bachelor of Arts

Humanities

Minor

Humanities

Humanities is a multidisciplinary major encompassing the study of cultural concepts, principles and values from the beginning of history to the present. An awareness of the past, an understanding of major influences and a perception of their relationships give meaning to the present, while the breadth of the discipline provides analytical skills needed in today's complex world as well as offering pragmatic benefits in business and industry.

B.A. IN HUMANITIES

Requirements (80 units)

Requirements for the B.A. in Humanities:

1. Hum 300. Introduction to Humanities (4)
2. Hum 305. World Mythology (4)
3. Hum 310. Humanistic Studies (4)
4. Hum 315. Historical Perspectives in the Humanities (4)
5. Hum 400. Humanities Seminar (4)
6. Twelve units of foreign language or equivalent proficiency.
7. FOCUS: *Twenty units from a single department, to be chosen from the courses listed below:*

Arts:

- Art 306. Greek and Roman Art (4)
 Art 308. Medieval Art (4)
 Art 311. Art of the United States to the End of the 19th Century (4)
 Art 321. Renaissance Art (4)
 Art 327. Baroque and Rococo Art (4)
 Art 328. Mexican Art (4)
 Art 329. Chicano Art (4)
 Art 413. Modern Art of the United States (4)
 Art 423. Nineteenth Century European Art (4)
 Art 424. Modern European Art (4)

Communication:

- Comm 305. Critical Approaches to Communication (4)
 Comm 361. Communication Technologies (4)

- Comm 422. Communication in Conflict (4)
 Comm 451. Diffusion of Innovations (4)
 Comm 471. Comparative Communication Systems (4)
 Comm 501. Legal and Ethical Aspects of Communication (4)
 Comm 581. Contemporary Theories of Rhetoric (4)

English:

- Eng 301. Analysis of Poetry (4)
 Eng 302. Analysis of Drama (4)
 Eng 303. Analysis of Prose Fiction (4)
 Eng 322. Studies in Literary Themes, Genres, or Authors (4)
 Eng 333. Myth and Epic (4)
 Eng 385. Introduction to Literary Criticism (4)
 Eng 442. Modern Poetry (4)
 Eng 446. Modern Fiction (4)
 Eng 450. Classical Drama (4)
 Eng 475. Shakespeare I (4)
 Eng 476. Shakespeare II (4)

Foreign Language:

- FLan 320. Masterpieces of Literature (4)
or with appropriate language facility:
 Fren 311. Masterpieces of French Literature I (4)
 Fren 312. Masterpieces of French Literature II (4)
 Fren 313. Masterpieces of French Literature III (4)
 Fren 314. Masterpieces of French Literature IV (4)
 Ger 308. Readings in German Literature (4)
 Ger 311. Survey of German Literature (4)
 Span 400. Masterpieces in Spanish and Spanish American Literature (4)

Music:

- Mus 350. Music of Other Cultures (4)
 Mus 351. Latin American Music (4)
 Mus 352. Afro-American Music (4)
 Mus 360. Music in the United States (4)
 Mus 400. Studies in Composers (4)
or, with appropriate background in music theory:
 Mus 304. History of Music I (4)
 Mus 305. History of Music II (4)
 Mus 306. History of Music III (4)

Philosophy:

- Phil 311. Ancient Philosophy (4)
 Phil 313. History of Modern Philosophy through the Nineteenth Century (4)
 Phil 315. Contemporary Philosophy (4)
 Phil 316. Philosophy of Science (4)
 Phil 325. Philosophy and the Arts (4)
 Phil 350. Ethics (4)
 Phil 363. Philosophy of Human Nature (4)
 Phil 484. Philosophy of Language (4)

Theatre Arts:

- TA 302. Analysis of Drama (4)
 TA 445. The Camera Eye (4)
 TA 450. Classical Drama (4)
 TA 451. Mystery to Melodrama (4)
 TA 455. Modern Drama I (4)
 TA 456. Modern Drama II (4)
 TA 461. American Drama (4)
 TA 475. Shakespeare I (4)
 TA 476. Shakespeare II (4)
8. ARTS: *Sixteen additional units to include a minimum of four units from each of the Art, Communication, Music and Theatre Arts categories listed above.*
9. LETTERS: *Twelve additional units to include a minimum of four units from each of the English, Foreign Languages and Philosophy categories listed above.*

NOTE: *The following courses may be taken for English or Theatre Arts credit but not both:*

- Eng 302. Analysis of Drama
 Eng 450. Classical Drama
 Eng 475. Shakespeare I
 Eng 476. Shakespeare II
 TA 302. Analysis of Drama
 TA 450. Classical Drama
 TA 475. Shakespeare I
 TA 476. Shakespeare II

MINOR IN HUMANITIES

Requirements (32 units)

Requirements for a minor in Humanities:

- Hum 300. Introduction to Humanities (4)
 - Eight units chosen from:*
 - Hum 305. World Mythology (4)
 - Hum 310. Humanistic Studies (4)
 - Hum 315. Historical Perspectives in the Humanities (4)
 - Hum 400. Humanities Seminar (4)
 - Twenty additional units, from the other departments in Humanities, to be chosen from a list of appropriate courses on file in the School of Humanities office.
-

COURSE OFFERINGS IN HUMANITIES (Hum)

Lower Division

180. The Art of Film

Developing critical appreciation of film as a mode of artistic expression. Explores creative applications of photography, literature, performance, music and scripting

through screening of films ranging from productions of major studios to works of avant-garde artists. (4 units)

Upper Division

300. Introduction to Humanities

Introduction to the ways individuals in the arts and letters approach their subject matter. (4 units)

305. World Mythology

Mythological themes (for example, creation, death) and their interpretations by various cultures. (4 units)

310. Humanistic Studies

The humanities in today's world, focusing upon the interdisciplinary contexts and cultural influences of a single humanistic discipline. May be repeated for credit as topics change. No more than 8 units are applicable to the humanities major. (4 units)

312. Theories of Language Acquisition and Learning

An examination of the linguistic, psychological and social aspects of first and second language acquisition, second dialect learning and learning theories. *Prerequisite: English 311.* (4 units)

315. Historical Perspectives in the Humanities

Cultural contributions of various humanistic activities in a particular historic era. May be repeated for credit as topics change. No more than 8 units are applicable to the humanities major. (4 units)

319. Myth, Metaphor and Symbol

Nature and function of myth and mythmaking; ways in which figurative language is used in different disciplines to create models for understanding the world and human experience. (4 units)

325. Perspectives on Gender

This interdisciplinary course uses scientific, humanistic and social science perspectives to foster an understanding of how gender roles in Western culture are established, maintained and changed. (Also offered as Social Sciences 325 and Natural Sciences 325. Students may receive credit for only one of these courses.) (4 units)

330. Arts and Ideas

An interdisciplinary exploration of several ways in which different arts exhibit ideas and various ideas stimulate our understanding of and pleasure in the arts. (4 units)

335. The Origin and Contemporary Role of Hispanic Culture

An exploration of the birth of the Hispanic culture in Spain and its continued development in Latin America and the United States as seen in literature, art, music, and philosophy. (4 units)

340. Interpretation and Values

Investigation of different ways in which people find the meaning, or meanings, in texts or events. Alternative theoretical approaches applied to specific literary, artistic, legal, religious and historical examples. (4 units)

344. Ideas in American Culture

An examination of recurring ideas in American culture, from Colonial times to the present, as seen in literature, art and thought. (4 units)

353. Popular Culture

Significance and context of popular modes of art and entertainment focusing on selected periods, such as the rock generation. May be repeated for credit as topics change. (4 units)

360. Cultures of the East

An interdisciplinary introduction to the cultural heritage of the nonwestern world as reflected in art, architecture, theatre, literature and music. (4 units)

380. Comparative Studies in the Arts and Literature of Western and Non-Western Cultures

Comparison of aspects of music, art, theatre and literature in Western and non-Western societies. (4 units)

385. A Cultural History of Fashion

The history of clothing and its relation to other arts as a form of self-expression within shifting socio-cultural circumstances. (4 units)

390. Media America

A critical and analytical examination of the impact of the mass media on society. (4 units)

400. Humanities Seminar

A seminar considering the various ways (particularly through philosophy, literature and the arts) in which people deal with "human experience." *Prerequisite: senior standing or consent of instructor.* (4 units)

460. Cultural Studies

Aspects of culture, language and civilization of selected ethnic groups within the United States and their contributions to American society; special attention to gender issues. (4 units)

495. Expository Writing for the Humanities

Writing related to the humanities including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. No more than one of the expository writing courses (Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Students who have received a grade of no credit in any combination of the expository writing courses two or more times must meet with the 495 coordinator or designee to design a developmental writing plan as a condition for enrolling for a third quarter. All students must obtain junior status at the time of registration or their course request will be cancelled. Graded A, B, C/No Credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (4 units)

496. Selected Topics in Humanities

Seminar in special topics chosen from arts or humanities. May be repeated for credit as topics change. (4 units)

499. Methods and Materials in the Teaching of Humanities

Integration of educational philosophy and pedagogical concepts with the specific teaching materials of disciplines in the humanities. This course may not be counted toward fulfilling requirements of courses in the majors below. May be repeated for credit as topics change. *Prerequisites: Education 332, senior or graduate standing and admission to the single subject credential program.*

- A. Art (4 units)
- B. Foreign Languages (4 units)
- C. English (4 units)
- D. Music (4 units)
- E. Theatre Arts (4 units)
- F. Humanities (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

695. Directed Graduate Studies

Graduate-level independent study under the direct supervision of a faculty member approved by the committee on graduate education. (Credit to be arranged: 1 to 5 units)

699. Thesis

Preparation of Master of Arts thesis under the direction of a faculty member approved by the committee on graduate education. Maximum nine credits applicable toward the Master of Arts, with a special major. *Prerequisite: advancement to candidacy.* (Credit to be arranged: 1 to 5 units)

INDUSTRIAL TECHNOLOGY

School of Natural Sciences

*Biological Sciences Building, Room 130
880-5300*

Bachelor of Science

Industrial Technology - Industrial and Technology Education Track

Industrial Technology - Industrial Management Track

The Bachelor of Science degree in Industrial Technology is a broad interdisciplinary program which provides only upper-division course work in science, mathematics, technology and management for transfer students from community college vocational/technical programs.

Admission to this degree program assumes a strong foundation of entry-level technical knowledge and is also designed for students who have some industrial job experience and who now wish to move from supervisory to management positions in industrial manufacturing concerns. The professional development provided by this major integrates specific general education content, theoretical knowledge in the natural sciences and applied skills in the social and behavioral sciences and business.

The degree provides alternative tracks for students wishing to specialize in either industrial management or industrial and technology education. The core of the program, however, seeks to insure a wide coverage of topics in industrial technology and prepare all students for positions in planning, supply, product utilization and evaluation, production supervision and technical sales. Graduates of the industrial management track should be prepared to function in a number of management capacities in industry. The specialization track in industrial and technology education aims to provide general education in tools, materials, processes, products and occupations in industrial as well as professional skills in pedagogy for those seeking employment as teachers in either public schools, technical institutes or corporate training programs.

Only students who have completed a minimum of 10 of the required 30 quarter units in an approved technical program in a community college can be admitted to this major. Students are encouraged to plan their general education course work carefully in order to pursue this degree in minimum time. Transfer credit must include a four-quarter unit course in drafting or technical drawing. (Please note that students electing the industrial and technology education track who are

seeking a single subject credential in industrial and technology education must complete all 45 quarter units of technical courses at a community college. Because this is a two-plus-two program which builds on lower-division technical training available at community colleges, this campus provides technical work only in the area of woodworking.)

B.S. IN INDUSTRIAL TECHNOLOGY — INDUSTRIAL AND TECHNOLOGY EDUCATION TRACK

Requirements (54 to 55 units)

Note: Students must have taken one approved four-quarter unit course in community college in each of the following areas:

- Metals
- Auto mechanics
- Electronics
- Drafting
- Graphic arts
- Wood technology
- Plus electives in one or more of the above areas for a total of 45 quarter units.

General Education course work must include the following courses which support the major. Refer to Page 59 for the University's general education requirements.

1. Chem 205. Fundamentals of Chemistry I: General Chemistry (5)
or
Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
2. Comm 120. Oral Communication (4)
3. NSci 495. Expository Writing for the Natural Sciences (4)
or
Mgmt 495. Expository Writing for Administration (4)
4. Psyc 100. Introduction to Psychology (4)
or
Soc 100. The Study of Society (4)

Requirements for the B.S. in Industrial Technology - Industrial and Technology Education Track:

Lower-division requirements (12 to 13 units)

- A. *Mathematics and Science (12 to 13 units)*
 1. *Four units chosen from:*
 - Math 120. Pre-Calculus Mathematics (4)
 - Math 190. Business Calculus (4)
 - Math 211. Basic Concepts of Calculus (4)

2. *A minimum of four units chosen from:*
 - a. Phys 121. Basic Concepts of Physics I (5)
 - b. Phys 122. Basic Concepts of Physics II (4)
3. *Four units chosen from:*
 - CSci 121. Computer Technology and People (2)
 - CSci 123. Using Computer Software (2)
 - CSci 125. Programming in BASIC (2)
 - Info 220. Fundamentals of Business Data Processing (4)

Upper-division requirements (37 units)

A. General Technology (21 units)

1. ITec 301. Introduction to Industrial Arts and Technology (2)
2. ITec 310. Manufacturing and Industrial Processes (5)
3. ITec 330. Computer Aided Design and Drafting (5)
4. ITec 350. Strength and Materials (5)
5. ITec 370. Quality Control and Assurance (4)

B. Industrial Arts Education Specialization (16 units)

1. Educ 302. Education in American Society (4)
2. EVoc 501. Principles and Methods for Teaching Designated Subjects (4)
3. EVoc 502. Instructional Support for Teaching Designated Subjects (4)
4. EVoc 503. Contemporary Issues in Teaching Designated Subjects (4)

Note: Students completing the program may be eligible for a designated subject credential if they have five years of work experience.

B.S. IN INDUSTRIAL TECHNOLOGY — INDUSTRIAL MANAGEMENT TRACK

Requirements (66 units)

Note: Only students who have completed a minimum of 10 of the required 30 quarter units in an approved community college technical specialization can be admitted to this major. Community college transfer credit must include a four-quarter unit course in drafting or technical drawing.

General Education course work must include the following courses which support the major. Refer to

Page 59 for the University's general education requirements.

1. Chem 205. Fundamentals of Chemistry I: General Chemistry (5)
or
Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
2. Comm 120. Oral Communication (4)
3. NSci 495. Expository Writing for the Natural Sciences (4)
or
Mgmt 495. Expository Writing for Administration (4)
4. Psyc 100. Introduction to Psychology (4)
or
Soc 100. The Study of Society (4)

Requirements for the B.S. in Industrial Technology - Industrial Management Track:

Lower-division requirements (16-17 units)

A. Mathematics and Science (16-17 units)

1. *Four units chosen from:*
 - Math 120. Pre-Calculus Mathematics (4)
 - Math 190. Business Calculus (4)
 - Math 211. Basic Concepts of Calculus (4)
2. Phys 121. Basic Concepts of Physics I (5)
3. *Four units chosen from:*
 - CSci 121. Computer Technology and People (2)
 - CSci 123. Using Computer Software (2)
 - CSci 125. Programming in BASIC (2)
 - Info 220. Fundamentals of Business Data Processing (4)
4. *Four units chosen from:*
 - Math 262. Applied Statistics (4)
 - Math 305. Statistics: Hypothesis Testing and Estimation (4)
 - MSci 210. Applied Business Statistics (4)

Upper-division requirements (49 units)

A. Business Administration (12 units)

1. Mgmt 302. Management and Organizational Behavior (4)
or
Psyc 302. Management and Organizational Behavior (4)
2. MSci 304. Quantitative Analysis for Management (4)
3. Acct 503. Financial and Managerial Accounting (4)

B. General Technology (21 units)

1. ITec 301. Introduction to Industrial Arts and Technology (2)
2. ITec 310. Manufacturing and Industrial Processes (5)
3. ITec 330. Computer Aided Design and Drafting (5)
4. ITec 350. Strength and Materials (5)

5. ITec 370. Quality Control and Assurance (4)
- C. *Industrial Management Specialization (16 units)*
1. Mgmt 455. Human Resources Management (4)
or
Psyc 355. Industrial Psychology (4)
 2. Mgmt 457. Industrial and Labor Relations (4)
 3. MSci 466. Production Planning and Operations Research (4)
 4. *Four units chosen from:*
 - HSci 381. Occupational Safety (4)
 - Info 309. Information Management (4)
 - Mgmt 330. Legal Environment of Business (4)
 - Mgmt 532. Human Factors in System Development (4)
 - Mktg 305. Marketing Principles (4)
 - Soc 438. Industrial Sociology (4)

370. Quality Control and Assurance

An overview of the concepts of systems for integrating quality development, quality maintenance and quality improvements within manufacturing systems. Quality assurance principles and practices will include management concepts, inspection practices and costs of quality control and testing functions. *Prerequisite: Industrial Technology 310.* (4 units)

575. Internship in Industrial Technology

Designed to provide the student with occupational experiences within the industrial community. Transition to professional practice wherein one applies learned theory to actual practice. May be repeated once for credit. Open only to industrial technology majors. Graded credit/no credit. *Prerequisites: completion of general technology core, Industrial Technology 301, 310, 330, 350 and 370 and consent of instructor and department.* (4 units)

COURSE OFFERINGS IN INDUSTRIAL TECHNOLOGY (ITec)

Upper Division

301. Introduction to Industrial Arts and Technology

Survey of the professional activities and environments of the industrial technologist. Course covers the role of the technologist in American industry, the history of technology and the growth and future of the profession. (2 units)

310. Manufacturing and Industrial Processes

Basic concepts of manufacturing engineering including management, design, production, controls, costs, personnel and sales. Four hours lecture and three hours laboratory/field work. (5 units)

330. Computer Aided Design and Drafting

The mechanisms and practices of graphic systems. Design and drafting used in modern manufacturing and construction industries. Review of traditional drafting and design methods and an in-depth study of computer aided design and drafting methods. AutoCad brand software will be used. Three hours lecture and six hours laboratory/field work. *Prerequisite: introductory technical drafting or consent of instructor.* (5 units)

350. Strength and Materials

Fundamentals of mechanics including forces, equilibrium, centroids, moments of inertia, shear and moment diagrams, stress and strain deflections. Physical, chemical and mechanical properties of common industrial materials along with selection, testing and evaluation procedures. Three hours lecture and six hours laboratory/field work. *Prerequisites: completion of lower-division physics, mathematics and chemistry requirements and Industrial Technology 310.* (5 units)

INFORMATION MANAGEMENT

Department of Information and Decision Sciences

Administration Building, Room 198
880-5723

The University offers concentrations in information management within the Bachelor of Arts in Administration, the Bachelor of Science in Administration and the Master of Business Administration. A Certificate in Information Management is also available. The details of these programs are listed under Administration (Page 79). The Master of Business Administration can be found on Page 325. The courses listed below are offered in support of these programs. Further information is available from the Department of Information and Decision Sciences.

Computers are changing the world. Knowing how to use computers in different cultures is extremely important. All students are encouraged to take courses through the California State University's International Programs or to take courses teaching about different cultures. For further information, see Page 21.

COURSE OFFERINGS IN INFORMATION MANAGEMENT (Info)

Lower Division

220. Fundamentals of Business Data Processing

Introduction to business data processing for students with no previous computer background. Fundamental principles of business data processing utilizing illustrative cases of business applications. (4 units)

282. Business Systems I

A comparison of introductory business system software in the developmental stages. Emphasizes the business software structures of various high level languages. Knowledge of computer programming is essential. *Prerequisites: Computer Science 125, 140, 201, 250 or consent of instructor.* (4 units)

283. Business Systems II

A comparison of advanced business system software in the developmental stages. Emphasizes the business software structures of high level languages. Knowledge of computer programming is essential. *Prerequisite: Information Management 282 or consent of instructor.* (4 units)

Upper Division

Enrollment in upper division courses restricted to students who have met all prerequi-

sites and have completed at least 89.9 quarter units (junior class level). Students who do not meet these requirements will be disenrolled.

309. Information Management

Application of computer systems in organizations. Covers the topics of information systems planning, information forecasting, information technology and information processing. *Prerequisite: Information Management 220.* (4 units)

471. Information Systems Planning

Analysis of an organization's information systems needs. Information systems needs are developed according to the mission, goals, objectives and business plans. *Prerequisites: Information Management 309 and Management 302 or Psychology 302.* (4 units)

472. Information Technology

Study of the hardware and software necessary to have a complete information system. Topics include distributed data systems, personal computers, data terminal devices, communication media, networking, operating systems and software needs. *Prerequisites: Information Management 309, 471.* (4 units)

473. Information Forecasting

Analysis of computerized forecasting techniques for accounting, finance, statistics and quantitative methods. *Prerequisites: Accounting 212 (or 312), Finance 313, Information Management 309, Management Science 210, 304.* (4 units)

474. Data Base Management

Treatment of the use of information retrieval and storage techniques. Includes sequential and random files organization, on-line systems and the application of data base programs. *Prerequisites: Information Management 309, 472.* (4 units)

475. Information Networking

An introduction to the data communication field for the business student. Covers the introductory topics of hardware, software, protocols, channels, modems, local area networks, wide area networks and various applications. *Prerequisite: Information Management 309 or consent of instructor.* (4 units)

476. Systems Analysis and Design

Analysis and design specifications of an organization; topics include flow charting, programming, interviewing, data flows, systems specifications and management involvement. *Prerequisites: Information Management 309, 471, 472; Computer Science 140 or 201.* (4 units)

477. Decision Support Systems

Analysis of executive information systems; topics include the strategy, framework, design, implementation and evaluation of decision-support systems. *Prerequisites: Information Management 309, 476.* (4 units)

478. Information Problem Solving

Structured approaches to complex problem solving techniques; topics include cybernetics, frame analysis, synetics, brainstorming and similar techniques. *Prerequisite: Information Management 309.* (4 units)

479. Studies in Information Management

Research and discussion of current topics, problems, research, employment opportunities, and developments in the computer and information management fields.

Prerequisite: Information Management 309. (4 units)

481. Information Processing

Analysis of text editing, word processing, graphics and report generation in the office information systems.

Emphasis is placed on adapting software packages to various computer systems. *Prerequisite: Information Management 309. (4 units)*

484. Expert Systems

An introduction to the concepts and techniques of expert systems. Covers the topics of artificial intelligence languages, developing systems and the market place.

Prerequisite: Information Management 309 or consent of instructor. (4 units)

490. Information Policies and Strategies

Topics are explored by utilizing skills and techniques developed in previous course work. Students are advised to take this course near the end of their program.

Prerequisites: Information Management Core. (4 units)

575. Internship in Information Management

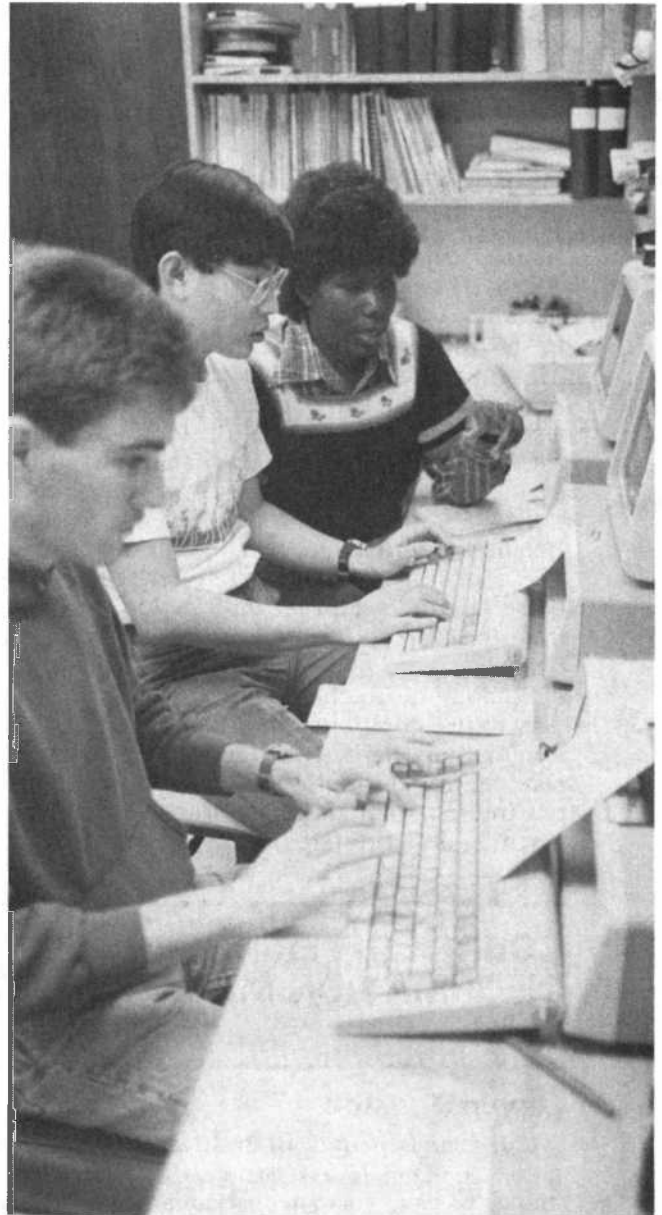
Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school. (4 units)*

590. Seminar in Information Management

An intensive study of some phase of information management to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken. (Credit to be arranged 2 or 4 units.)*



INTERDISCIPLINARY STUDIES

The university offers a limited number of courses outside of its department and school structure.

Also offered as interdisciplinary studies are the certificate programs in international relations and bilingual/cross-cultural studies. See Pages 109 and 273.

COURSE OFFERINGS IN INTERDISCIPLINARY STUDIES (IS)

Lower Division

101. Words and Ideas

A course combining English 101. Freshman Composition and Philosophy 105. Critical Thinking Through Argument Analysis. Students must complete Interdisciplinary Studies 101A and Interdisciplinary Studies 101B before credit can be granted for either. Interdisciplinary Studies 101A must be taken before Interdisciplinary Studies 101B. *Prerequisite: satisfactory score on the English placement test, or completion of the test and at least a grade of "C" in English 85 or 95.*

A. (4 units)

B. (4 units)

Upper Division

460. Aspects of Chicano Culture

Cultural, political and social values of the Chicano as reflected in Chicano literature, art, music, teatro and other forms and their relationship to concurrent developments in Mexico. (4 units)

LIBERAL STUDIES

Liberal Studies Office

*Pfau Library Building, Room 206
880-5857*

Bachelor of Arts

Liberal Studies
Liberal Studies Bilingual/Cross-Cultural Studies
Emphasis

Teaching Credential Program

Liberal Studies - Multiple Subject

The Bachelor of Arts in Liberal Studies is a multidisciplinary degree program designed for students whose needs or interests require a more broadly based liberal arts curriculum than is possible through existing disciplines. (By completing the liberal studies program, students also fulfill the general education requirements of the University.) While the program is configured for students who plan to become elementary-school teachers, it is open to everyone. In fact, the program contains optional courses for students who do not plan to seek a credential.

The liberal studies program has been approved by the Commission for Teacher Credentialing; students who complete the program for elementary-school teachers are granted a waiver of the N.T.E. examination requirement for the multiple subjects teaching credential.

The liberal studies program also contains a track for students who want a bilingual/cross-cultural emphasis in Spanish. Information on this track is available on Page 218.

Note: The requirements for this major are currently under revision due to changes in standards required by the State of California for subject matter preparation of prospective teachers. Students entering this major beginning fall quarter of 1991 will be held to the new requirements in effect at that time. Students beginning this program prior to Fall 1991 (either at CSUSB or at community college) must complete all old requirements before September 1994 or they will be held to the new Liberal Studies requirements which are implemented in Fall 1991.

B.A. IN LIBERAL STUDIES

Requirements (154 units)

- BASIC PROGRAM (134 units)
- A. Language Arts (28 units)
 - B. Humanities and the Arts (32 units)
 - C. Mathematics and Natural Sciences (32 units)
 - D. Social and Behavioral Sciences (32 units)

- E. Lifelong Understanding (6 units)
- F. Multicultural/Gender Category
- G. General Education Elective Options (4 units)

FIELD OF CONCENTRATION (20 units)

- H. Concentrations (See the list of approved fields under category H below)

LIBERAL STUDIES TOTAL (154 units)

All liberal studies candidates should give special attention to the following points before they begin their course work:

1. Since the liberal studies program contains a variety of choices, students should seek advisement as early as possible;
2. By completing the liberal studies program, students also can fulfill the general education requirements of the University;
3. A course only can be counted once within the liberal studies program; for example, a course taken in the Concentration, category H cannot be taken in a breadth area, categories A through D;
4. The liberal studies program is designed both for students who wish to enter elementary-school teaching (*Credential candidates*) and for those who are not seeking a teaching credential but still want a broad undergraduate education (*Noncredential candidates*). Students who do not wish to enter elementary-school teaching should notice the special options that are provided for them below;
5. With advisement and a careful selection of courses, students can also:
 - A. Complete a second major in certain fields;
 - B. Complete the requirements leading to a multiple subject teaching credential. See "Basic Teaching Credentials" in this catalog, Page 138;
6. Students who select the bilingual/cross-cultural track should consult carefully its prefatory remarks.

The basic program in liberal studies is divided into four breadth areas, categories A through D. A 2.0 grade average must be maintained in these areas. Generally, courses taken in categories F and G will be counted under categories A through D or category H. Within categories A through E, the course work is subdivided further into courses in required sections and electives. Sections throughout the basic program that also meet general education requirements are marked "G.E."

Requirements for the B.A. in Liberal Studies:

A. Language Arts (28 units)

1. *Written Communication (G.E.):*
Eng 101. Freshman Composition (4)
2. *Upper-division Writing Requirement (G.E.):*

Liberal Studies recommends English 495. Expository Writing; but any of the following courses qualifies, four units chosen from:

- Educ 495. Expository Writing for Education (4)
- Eng 495. Expository Writing (4)
- Hum 495. Expository Writing for the Humanities (4)
- Mgmt 495. Expository Writing for Administration (4)
- NSci 495. Expository Writing for the Natural Sciences (4)
- SSci 495. Expository Writing for the Social Sciences (4)

Note: This requirement also can be met by passing a proficiency examination. Students who pass the examination will be required instead to take four units of upper-division general education course work from among those courses listed under the General Education Elective Options, see category G.

3. *Oral Communication (G.E.):*
Comm 120. Oral Communication (4)
4. *Literature (G.E.):*
Four units chosen from:
Comm 281. Literature of Rhetorical Discourse (4)
Eng 110. World Literature I (4)
Eng 111. World Literature II (4)
Eng 160. World Drama (4)
Eng 170. Studies in Literature (4)
Eng 281. Literature of Rhetorical Discourse (4)
TA 160. World Drama (4)
TA 212. Oral Interpretation of Literature (4)
5. *Development of Language:*
 - a. *Credential candidates, four units as follows:*
Eng 311. The English Language (4)
 - b. *Noncredential candidates, four units chosen from:*
Eng 311. The English Language (4)
Fren 306. French Linguistics (4)
Phil 484. Philosophy of Language (4)
Span 415. Comparative Linguistics: Spanish/English (4)
6. *Analysis of Literature:*
Four units chosen from:
Eng 301. Analysis of Poetry (4)
Eng 302. Analysis of Drama (4)
Eng 303. Analysis of Prose Fiction (4)
TA 302. Analysis of Drama (4)
7. *Upper-division elective in English:*
Note: A course counted under categories A5 and A6 cannot be counted under category A7.
Four units chosen from:
Eng 301. Analysis of Poetry (4)
Eng 302. Analysis of Drama (4)
Eng 303. Analysis of Prose Fiction (4)

- Eng 311. The English Language (4)
- Eng 314. American Indian Literature (4)
- Eng 317. Introduction to Creative Writing: Poetry (4)
- Eng 318. Introduction to Creative Writing: Fiction (4)
- Eng 320. Children's Literature (4)
- Eng 322. Studies in Literary Themes, Genres, or Authors (4)
- Eng 330. American Literature I (4)
- Eng 331. American Literature II (4)
- Eng 332. American Literature III (4)
- Eng 333. Myth and Epic (4)
- Eng 335. Studies in the Novel (4)
- Eng 339. Black Literature (4)
- Eng 401. English Literature of the Middle Ages (4)
- Eng 403. English Literature of the Renaissance (4)
- Eng 406. Seventeenth Century Literature (4)
- Eng 409. English Literature of the Restoration and Eighteenth Century (4)
- Eng 412. Romantic Prose and Poetry (4)
- Eng 415. Victorian Literature (4)
- Eng 442. Modern Poetry (4)
- Eng 446. Modern Fiction (4)
- Eng 450. Classical Drama (4)
- Eng 455. Modern Drama I (4)
- Eng 456. Modern Drama II (4)
- Eng 475. Shakespeare I (4)
- Eng 476. Shakespeare II (4)
- Eng 513. Advanced Creative Writing (4)
- Eng 515. Senior Seminar in Literature (4)
- Eng 565A. Special Studies in Writing (2)
- Eng 565B. Special Studies in Writing (2)
- Hum 312. Theories of Language Acquisition and Learning (4)
- TA 302. Analysis of Drama (4)
- TA 450. Classical Drama (4)
- TA 455. Modern Drama I (4)
- TA 456. Modern Drama II (4)
- TA 475. Shakespeare I (4)
- TA 476. Shakespeare II (4)

B. Humanities and the Arts Breadth Area (32 units)

1. *Critical Thinking (G.E.):*
Four units chosen from:
Comm 180. Critical Thinking Through Argumentation (4)
Math 180. Critical Thinking Through Problem Solving (4)
Phil 105. Critical Thinking Through Argument Analysis (4)
Phil 205. Critical Thinking Through Symbolic Logic (4)
Psys 105. Critical Thinking Through Problems Analysis (4)

- Soc 180. Critical Thinking About Social Problems (4)
2. *Philosophy (G.E.):*
Four units chosen from:
 Phil 190. Introduction to Philosophy (4)
 Phil 250. Values, Technology and Society (4)
 Phil 270. Introductory Philosophy of Religion (4)
 Phil 275. Eastern Views of Life (4)
 Phil 280. Knowledge and Reality (4)
3. *Foreign Language (G.E.):*
 a. *For students with the equivalent of two-years high-school study in the selected language, four units chosen from:*
 Flan 150. Independent Intermediate Language Study (4)
 Fren 150. Intermediate French (4)
 Fren 212. Composition (4)
 Fren 214. Conversation (4)
 Fren 216. Introduction to Literary Texts (4)
 Ger 150. Intermediate German (4)
 Ger 212. Composition (4)
 Ger 214. Conversation (4)
 Ger 216. Introduction to Literary Texts (4)
 Span 150. Intermediate Spanish (4)
 Span 155. Intermediate Spanish for Spanish Speakers (4)
 Span 212. Composition (4)
 Span 214. Conversation (4)
 Span 216. Introduction to Literary Texts (4)
- b. *For students beginning a new language, eight units chosen from groups 1, 2, 3 or 4 below: (Credit the four units for the 101 course in category G2.)*
1. Flan 101. Independent Language Study I (4)
 and
 Flan 102. Independent Language Study II (4)
 2. Fren 101. College French I (4)
 and
 Fren 102. College French II (4)
 3. Ger 101. College German I (4)
 and
 Ger 102. College German II (4)
 4. Span 101. College Spanish I (4)
 and
 Span 102. College Spanish II (4)

Note: *Students pursuing the B.A. in Liberal Studies cannot include in category B3 the following courses:*
 Fren 290. French Literature in English
 Ger 290. German Literature in English
 Span 290. Spanish and Latin American Literature in English

4. *Arts:*
- a. *Four units in the arts (G.E.) chosen from:*
 Art 200. Studies in Art (4)
 Hum 180. The Art of Film (4)
 Mus 180. Studies in Music (4)
 TA 260. Introduction to Theatre (4)
- b. *A minimum of eight units, at least six units upper-division, in arts activity/arts in the classroom chosen from:*
- Art 201. Foundation Studio in Art (5)
 Art 203. Foundation Studio in Art (5)
 Art 204. Drawing and Life Drawing (5)
 Art 304. Advanced Drawing and Life Drawing (5)
 Art 335. Painting I (5)
 Art 336. Advanced Painting (5)
 Art 340. Sculpture I (5)
 Art 341. Advanced Sculpture (5)
 Art 354. Ceramics I (5)
 Art 357. Advanced Ceramics (5)
 Art 360. Printmaking I (5)
 Art 361. Advanced Printmaking (5)
 Art 365. Directed Studio Problems (1-2)
 Art 368. Woodworking and Furniture Design I (5)
 Art 369. Advanced Woodworking and Furniture Design (5)
 Art 375. Glass (5)
 Art 376. Jewelry and Metalsmithing (5)
 Art 380. Communications Design I (5)
 Art 381A. Advanced Communications Design (5)
 Art 381B. Advanced Communications Design (2.5)
 Art 390. Beginning Photography (5)
 Art 392. Advanced Photography (5)
 Art 386. Audio and Video Media (4)
 Art 395. Art in the Classroom (5)
 Comm 243A. Communication Practicum: Journalism, Photojournalism and Public Relations (2)
 Comm 243B. Communication Practicum: Radio and Television (2)
 Comm 382. Intercollegiate Forensics (2)
 Comm 386. Audio and Video Media (4)
 Mus 205. Class Guitar (1)
 Mus 206. Class Voice (1)
 Mus 220. Class Piano I (1)
 Mus 221. Class Piano II (1)
 Mus 222. Class Piano III (1)
 Mus 380. Chamber Orchestra (1)
 Mus 381. Wind Ensemble (1)
 Mus 382A. Chamber Music: Woodwinds (1)
 Mus 382C. Chamber Music: Flute Choir (1)
 Mus 382D. Chamber Music: Brass Quintet (1)
 Mus 382E. Chamber Music: Saxophone Ensemble (1)

- Mus 382F. Chamber Music: Guitar Ensemble (1)
- Mus 382G. Chamber Music: Clarinet Ensemble (1)
- Mus 385. Concert Choir (1)
- Mus 386. Chamber Singers (1)
- Mus 387. Opera Workshop (1)
- Mus 391. Jazz Ensemble (1)
- Mus 395. Collegiate Chorus (1)
- Mus 396. Reverence Singers (1)
- Mus 410. Music in the Elementary Schools (2)
- Mus 531. Music in the Classroom (4)
- Mus 570. Creating Music (2)
- TA 131. Stage Makeup (2)
- TA 232. Lighting and Sound (2)
- TA 233. Costume Construction (2)
- TA 235. Fundamentals of Stage Design (4)
- TA 239. Stagecraft (2)
- TA 245. Beginning Theatre Movement (2)
- TA 251. Acting I (3)
- TA 252. Acting II (3)
- TA 253. Voice for the Stage (2)
- TA 312. Oral Interpretation for the Theatre (3)
- TA 320A. Theatre Practicum: Performance (2)
- TA 320B. Theatre Practicum: Imagination Players (2)
- TA 320C. Theatre Practicum: Touring Theatre (2)
- TA 320D. Theatre Practicum: Technical Production (2)
- TA 337. Design: Costume Design (3)
- TA 345A. Theatre Movement: Period Manners and Stage Encounters (2)
- TA 345B. Theatre Movement: Physical Characterization (2)
- TA 382. Readers Theatre in the Classroom (4)
- TA 385. Acting for Non-Majors (4)
- TA 481. Creative Drama in the Classroom (4)
5. *Electives in Humanities:*
Four units chosen from groups 1 or 2 below:
- Four units in upper-division courses chosen from:*
communication, foreign languages and literatures, French, German, humanities, philosophy and Spanish;
 - Four units in upper-division courses chosen from:*
courses in art history and music history.
6. *Integrative Capstone in the Humanities (G.E.):*
Four units chosen from:
- Hum 319. Myth, Metaphor and Symbol (4)
- Hum 325. Perspectives on Gender (Meets the requirement in category F1.) (4)

- Hum 330. Arts and Ideas (4)
- Hum 340. Interpretation and Values (4)
- Hum 344. Ideas in American Culture (4)
- Hum 380. Comparative Studies in the Arts and Literature of Western and Non-Western Cultures (4)
- Hum 385. A Cultural History of Fashion (4)
- Hum 390. Media America (Meets the requirement in category F1.) (4)
- Note:** *Students can receive credit for only one of the following courses:*
- Hum 325. Perspectives on Gender
- NSci 325. Perspectives on Gender
- SSci 325. Perspectives on Gender

C. Mathematics and Natural Sciences Breadth Area (32 units)

- Mathematics (G.E.):*
Four units chosen from:
- Math 110. College Algebra (4)
- Math 115. The Ideas of Mathematics (4)
- Math 120. Pre-Calculus Mathematics (4)
- Math 211. Basic Concepts of Calculus (4)
- Mathematical Applications:*
Four units chosen from:
- Math 211. Basic Concepts of Calculus (4)
- Math 212. Calculus II (4)
- Math 302. Problem Solving in Mathematics (4)
- Note:** Math 211. Basic Concepts of Calculus may not be taken for credit by students who have received credit for this course in category C1.
- Life Science (G.E.):*
Five units chosen from:
- Biol 100. Topics in Biology (5)
- Biol 200. Biology of the Cell (5)
- Biol 201. Biology of Organisms (5)
- Biol 202. Biology of Populations (5)
- HSci 120. Health and Society: An Ecological Approach (5)
- Physical Science (G.E.):*
A minimum of five units chosen from:
- Chem 100. Chemistry in the Modern World (5)
 - Chem 205. Fundamentals of Chemistry I: General Chemistry (5)
 - Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
 - Geog 103. Physical Geography (5)
 - Geol 101. Physical Geology (5)
 - Phys 100. Physics in the Modern World (5)
 - Phys 103. Descriptive Astronomy (5)
 - Phys 121. Basic Concepts of Physics I (5)
 - Phys 221. General Physics I (5)
- Special Topics in Science and Technology (G.E.):*
Two units chosen from:
- Biol 216. Genetics and Society (2)

Biol 217. Biology of Sexually Transmitted Diseases (2)

Chem 105. Chemicals in Our Environment (2)

6. *Mathematics and Natural Sciences Electives:*

a. *Credential candidates, eight units as follows:*

CSci 127. Introduction to Computer Technology for Educators (4)

Math 301. Basic Mathematics for Educators (4)

b. *Noncredential candidates, eight units, at least four units must be upper-division, chosen from:*

biology, chemistry, computer science, earth science, health science, mathematics, natural sciences or physics courses. *At least two units must be drawn from:*

CSci 121. Computer Technology and People (2)

CSci 123. Using Computer Software (2)

CSci 125. Programming in BASIC (2)

CSci 127. Introduction to Computer Technology for Educators (4)

Note: The following courses can be used to satisfy only one category and students CANNOT RECEIVE CREDIT FOR BOTH:

CSci 121. Computer Technology and People

and

CSci 127. Introduction to Computer Technology for Educators

OR

CSci 123. Using Computer Software and

CSci 127. Introduction to Computer Technology for Educators

7. *Integrative Capstone in the Natural Sciences (G.E.):*

Four units chosen from:

NSci 300. Science and Technology (4)

NSci 310. The Environment and Human Survival (4)

NSci 312. Scientific Contributions to the Development of Civilization (4)

NSci 314. Life in the Cosmos (4)

NSci 320. Energy (4)

NSci 325. Perspectives on Gender (Meets the requirement in category F1.) (4)

NSci 351. Health and Human Ecology (4)

Note: *Students may receive credit for only one of the following courses:*

Hum 325. Perspectives on Gender

NSci 325. Perspectives on Gender

SSci 325. Perspectives on Gender

D. Social and Behavioral Sciences Breadth Area (32 units)

1. *American History and Civilization (G.E.):*

Four units chosen from:

Hist 200. United States History to 1877 (4)

Hist 201. United States History 1877 to the Present (4)

SSci 146. American Civilization (4)

2. *American Institutions (G.E.):*

PSci 203. American Government (4)

Note: The American History, Constitution, State and Local Government requirement can be met by taking Political Science 203 and either History 200, 201 or Social Sciences 146. However, if this requirement is met by examination, then students still must take sixteen units of lower-division course work in categories D1 through D4.

3. *World Cultures (G.E.):*

Four units chosen from:

SSci 140. World Civilizations I, The Rise of Civilization (4)

SSci 142. World Civilizations II, The Civilizations of the East and the West (4)

SSci 144. World Civilizations III, The Expansion of Europe (4)

SSci 165. Regions and Peoples of the World (4)

4. *Discipline Perspectives (G.E.):*

Four units chosen from:

Anth 100. Introduction to Anthropology: Human Evolution (4)

Anth 102. Introduction to Anthropology: Culture and Society (4)

Econ 104. Introduction to Economics (4)

Geog 100. Introduction to Human Geography (4)

PSci 100. Introduction to Political Science (4)

Psyc 100. Introduction to Psychology (4)

Soc 100. The Study of Society (4)

5. *Social Science Electives:*

a. *Credential candidates, twelve units as follows:*

1. Psyc 320. Psychology of Middle Childhood (4)

2. Eight units, at least four units must be upper-division, chosen from anthropology, criminal justice, economics, geography, history, political science, psychology, social sciences, sociology and women's studies.

b. *Noncredential candidates, twelve units, at least four units must be upper-division, chosen from:*

anthropology, criminal justice, economics, geography, history, political science, psychology, social sciences, sociology and women's studies.

6. *Integrative Capstone in the Social and Behavioral Sciences (G.E.):*

Four units chosen from:

SSci 300. Nonwestern World (4)

- SSci 315. Cultural Adaptation: The Quest for Survival (4)
- SSci 316. Race and Racism (Meets the requirement in category F1.) (4)
- SSci 321. Urbanization and the Urban Environment (4)
- SSci 325. Perspectives on Gender (Meets the requirement in category F1.) (4)
- SSci 343. Understanding Socialism (4)
- SSci 345. Religious Expression in America (4)
- SSci 350. Roots of Modern Racism in America (4) (Meets the requirement in Category F1.)

Note: *Students may receive credit for only one of the following courses:*

- Hum 325. Perspectives on Gender
- NSci 325. Perspectives on Gender
- SSci 325. Perspectives on Gender

E. Lifelong Understanding (6 units)

1. *The Whole Person - physical and physiological issues (G.E.):*

Two units chosen from:

- NSci 110. Health and Self Care (2)
- PE 205. Foundations for Lifetime Fitness (2)

2. *The Whole Person - social and psychological issues (G.E.):*

Two units chosen from:

- Psyc 115. Personal and Social Adjustment (2)
- Soc 110. Choices in the Life Course (2)

3. *Physical Education (G.E.):*

a. *Noncredential candidates, two units chosen from:*

- PE 101. Individual and Dual Activities (2)
- PE 114. Physical Fitness and Conditioning Activities (2)
- PE 117. Combative Activities (2)
- PE 121. Team Activities (2)
- PE 137. Aquatic Activities (2)
- PE 141. Dance Activities (2)
- PE 146. Outing Skills Activities (2)
- PE 147. A Fitness Odyssey (2)
- PE 148. Leisure Sports (2)
- PE 149. Independent Activity Project (2)

b. *Credential candidates, two units chosen from courses listed in (3a) above. Students are encouraged to elect a dance course, P.E. 141.*

F. Multicultural/Gender Category

All students must take one upper-division course designated as meeting this requirement, chosen from groups 1 or 2 below:

1. An appropriate Integrative capstone course in one of the following categories: B6, C7, or D6.

2. An upper-division course that also fulfills the general elective requirement in category G1.

G. General Education Elective Options (4 units)

A minimum of four units must be taken from this category to satisfy general education requirements. As noted in A2 above, students who pass the 495 proficiency examination must take four units of upper-division general education courses in this category in addition to the minimum four elective units. COURSES COUNTED IN THIS CATEGORY CANNOT BE COUNTED ELSEWHERE IN LIBERAL STUDIES.

1. *Upper-division general education elective courses that satisfy the Multi-cultural/Gender requirement:*

- Anth 325. Human Variation and the Concept of Race (4)
- Anth 333. Sex and Gender in Cross-Cultural Perspective (4)
- Comm 304. Intercultural Communication (4)
- Econ 352. The Economics of Poverty and Discrimination (4)
- Eng 314. American Indian Literature (4)
- Hum 460. Cultural Studies (4)
- Phil 364. Philosophy of Race and Gender (4)

2. *Other elective courses: Lower-division course work from any of the areas marked (G.E.) in categories A through D above that is in excess of the units required (including French 101, Spanish 101 and German 101) or units drawn from the courses that follow:*

- Art 210. Western Art History (4)
- Comm 202. Mass Communication in America (4)
- CSci 123. Using Computer Software (2)
- CSci 125. Programming in BASIC (2)
- CSci 127. Introduction to Computer Technology for Educators (4)
- Eng 140. Major American Authors (4)
- Mus 225. Music in the Theatre (4)
- Mus 235. Popular Music Literature (4)
- Psyc 201. Developmental Psychology (4)
- WStd 200. Introduction to Women's Studies (4)

Note: *Students CANNOT RECEIVE CREDIT FOR BOTH:*

- CSci 121. Computer Technology and People
- and

CSci 127. Introduction to Computer Technology for Educators

OR

CSci 123. Using Computer Software and

CSci 127. Introduction to Computer Technology for Educators

Note: *Students cannot receive credit for both:*

Psyc 201. Developmental Psychology

Psyc 320. Psychology of Middle Childhood

H. Concentrations (20 units)

Twenty units, only four units can be lower-division; however, exceptions can be made in mathematics, the sciences, and foreign languages at the discretion of the Liberal Studies Coordinator. Courses in the concentration must be selected in consultation with an advisor. They must be drawn from ONE of the following disciplines:

Administration

Anthropology

Art

Art, Music and Theatre for Teachers

Biology

Chemistry

Communication

Computer Science

Economics

English

Foreign Literature in Translation

French

German

Geography

Health Science

History

Human Development

Humanities

Mathematics

Music

Philosophy

Physical Education

Physics

Political Science

Psychology

Sociology

Spanish

Spanish for Public Services

Theatre Arts

Women's Studies

B.A. IN LIBERAL STUDIES (BILINGUAL/CROSS-CULTURAL STUDIES EMPHASIS)

Requirements (154 units)

A multiple-subject credential candidate can pursue a bilingual/cross-cultural track within the lib-

eral studies major. This track requires a different basic program than the standard liberal studies program, as is outlined below. Specifically, the track narrows the range of electives in humanities and the arts, the social and behavioral sciences, and the concentration in order to focus on Spanish language and culture.

Requirements for the B.A. in Liberal Studies - Bilingual/Cross-Cultural Studies Emphasis:

A. Language Arts Breadth Area (28 units)

1. *Written Communication (G.E.):*

Eng 101. Freshman Composition (4)

2. *Upper-division Writing Requirement (G.E.):*

Liberal Studies recommends English 495. Expository Writing; but any of the following courses qualifies, four units chosen from:

Educ 495. Expository Writing for Education (4)

Eng 495. Expository Writing (4)

Hum 495. Expository Writing for the Humanities (4)

Mgmt 495. Expository Writing for Administration (4)

NSci 495. Expository Writing for the Natural Sciences (4)

SSci 495. Expository Writing for the Social Sciences (4)

Note: This requirement also can be met by passing a proficiency examination. Students who pass the examination will be required instead to take four units of upper-division general education course work from among those courses listed under the General Education Elective Options, see category G.

3. *Oral Communication (G.E.):*

Comm 120. Oral Communication (4)

4. *Literature (G.E.):*

Four units chosen from:

Comm 281. Literature of Rhetorical Discourse (4)

Eng 110. World Literature I (4)

Eng 111. World Literature II (4)

Eng 160. World Drama (4)

Eng 170. Studies in Literature (4)

Eng 281. Literature of Rhetorical Discourse (4)

TA 160. World Drama (4)

TA 212. Oral Interpretation of Literature (4)

5. *Development of Language:*

a. *Credential candidates, four units as follows:*

Eng 311. The English Language (4)

b. *Non-credential candidates, four units chosen from:*

Eng 311. The English Language (4)

- Fren 306. French Linguistics (4)
 Phil 484. Philosophy of Language (4)
6. *Analysis of Literature:*
Four units chosen from:
 Eng 301. Analysis of Poetry (4)
 Eng 302. Analysis of Drama (4)
 Eng 303. Analysis of Prose Fiction (4)
 TA 302. Analysis of Drama (4)
7. *Upper-division elective in English:*
Note: A course counted under category A6 cannot be counted under category A7.
Four units chosen from:
 Eng 301. Analysis of Poetry (4)
 Eng 302. Analysis of Drama (4)
 Eng 303. Analysis of Prose Fiction (4)
 Eng 311. The English Language (4)
 Eng 314. American Indian Literature (4)
 Eng 317. Introduction to Creative Writing: Poetry (4)
 Eng 318. Introduction to Creative Writing: Fiction (4)
 Eng 320. Children's Literature (4)
 Eng 322. Studies in Literary Themes, Genres, or Authors (4)
 Eng 330. American Literature I (4)
 Eng 331. American Literature II (4)
 Eng 332. American Literature III (4)
 Eng 333. Myth and Epic (4)
 Eng 335. Studies in the Novel (4)
 Eng 339. Black Literature (4)
 Eng 401. English Literature of the Middle Ages (4)
 Eng 403. English Literature of the Renaissance (4)
 Eng 406. Seventeenth Century Literature (4)
 Eng 409. English Literature of the Restoration and Eighteenth Century (4)
 Eng 412. Romantic Prose and Poetry (4)
 Eng 415. Victorian Literature (4)
 Eng 442. Modern Poetry (4)
 Eng 446. Modern Fiction (4)
 Eng 450. Classical Drama (4)
 Eng 455. Modern Drama I (4)
 Eng 456. Modern Drama II (4)
 Eng 475. Shakespeare I (4)
 Eng 476. Shakespeare II (4)
 Eng 513. Advanced Creative Writing (4)
 Eng 515. Senior Seminar in Literature (4)
 Eng 565A. Special Studies in Writing (2)
 Eng 565B. Special Studies in Writing (2)
 Hum 312. Theories of Language Acquisition and Learning (4)
 TA 302. Analysis of Drama (4)
 TA 450. Classical Drama (4)
 TA 455. Modern Drama I (4)
 TA 456. Modern Drama II (4)
 TA 475. Shakespeare I (4)

TA 476. Shakespeare II (4)

B. Humanities and the Arts Breadth Area (32 units)

1. *Critical Thinking (G.E.):*
Four units chosen from:
 Comm 180. Critical Thinking Through Argumentation (4)
 Math 180. Critical Thinking Through Problem Solving (4)
 Phil 105. Critical Thinking Through Argument Analysis (4)
 Phil 205. Critical Thinking Through Symbolic Logic (4)
 Psyc 105. Critical Thinking Through Problems Analysis (4)
 Soc 180. Critical Thinking about Social Problems (4)
2. *Philosophy (G.E.):*
Four units chosen from:
 Phil 190. Introduction to Philosophy (4)
 Phil 250. Values, Technology and Society (4)
 Phil 270. Introductory Philosophy of Religion (4)
 Phil 275. Eastern Views of Life (4)
 Phil 280. Knowledge and Reality (4)
3. *Spanish Language (G.E.):*
 Span 212. Composition (4)
Note: *Students beginning Spanish can credit in categories G2 and H the following courses:*
 Span 101. College Spanish I
 Span 102. College Spanish II
 Span 150. Intermediate Spanish (Pre-requisite to Spanish 212. Composition)
4. *Arts:*
 a. *Four units in art (G.E.) chosen from:*
 Art 200. Studies in Art (4)
 Hum 180. The Art of Film (4)
 Mus 180. Studies in Music (4)
 TA 260. Introduction to Theatre (4)
 b. *A minimum of four units in arts activity/arts in the classroom chosen from:*
 Art 201. Foundation Studio in Art (5)
 Art 203. Foundation Studio in Art (5)
 Art 204. Drawing and Life Drawing (5)
 Art 304. Advanced Drawing and Life Drawing (5)
 Art 335. Painting I (5)
 Art 336. Advanced Painting (5)
 Art 340. Sculpture I (5)
 Art 341. Advanced Sculpture (5)
 Art 354. Ceramics I (5)
 Art 357. Advanced Ceramics (5)
 Art 360. Printmaking I (5)
 Art 361. Advanced Printmaking (5)
 Art 365. Directed Studio Problems (1-2)
 Art 368. Woodworking and Furniture Design I (5)

Art 369. Advanced Woodworking and Furniture Design (5)
 Art 375. Glass (5)
 Art 376. Jewelry and Metalsmithing (5)
 Art 380. Communications Design I (5)
 Art 381A. Advanced Communications Design (5)
 Art 381B. Advanced Communications Design (2.5)
 Art 386. Audio and Video Media (4)
 Art 390. Beginning Photography (5)
 Art 392. Advanced Photography (5)
 Art 395. Art in the Classroom (5)
 Comm 243A. Communication Practicum: Journalism, Photojournalism and Public Relations (2)
 Comm 243B. Communication Practicum: Radio and Television (2)
 Comm 382. Intercollegiate Forensics (2)
 Comm 386. Audio and Video Media (4)
 Mus 205. Class Guitar (1)
 Mus 206. Class Voice (1)
 Mus 220. Class Piano I (1)
 Mus 221. Class Piano II (1)
 Mus 222. Class Piano III (1)
 Mus 380. Chamber Orchestra (1)
 Mus 381. Wind Ensemble (1)
 Mus 382A. Chamber Music: Woodwinds (1)
 Mus 382C. Chamber Music: Flute Choir (1)
 Mus 382D. Chamber Music: Brass Quintet (1)
 Mus 382E. Chamber Music: Saxophone Ensemble (1)
 Mus 382F. Chamber Music: Guitar Ensemble (1)
 Mus 382G. Chamber Music: Clarinet Ensemble (1)
 Mus 385. Concert Choir (1)
 Mus 386. Chamber Singers (1)
 Mus 387. Opera Workshop (1)
 Mus 391. Jazz Ensemble (1)
 Mus 395. Collegiate Chorus (1)
 Mus 396. Reverence Singers (1)
 Mus 410. Music in the Elementary Schools (2)
 Mus 531. Music in the Classroom (4)
 Mus 570. Creating Music (2)
 TA 131. Stage Makeup (2)
 TA 232. Lighting and Sound (2)
 TA 233. Costume Construction (2)
 TA 235. Fundamentals of Stage Design (4)
 TA 239. Stagecraft (2)
 TA 245. Beginning Theatre Movement (2)
 TA 251. Acting I (3)

TA 252. Acting II (3)
 TA 253. Voice for the Stage (2)
 TA 312. Oral Interpretation for the Theatre (3)
 TA 320A. Theatre Practicum: Performance (2)
 TA 320B. Theatre Practicum: Imagination Players (2)
 TA 320C. Theatre Practicum: Touring Theatre (2)
 TA 320D. Theatre Practicum: Technical Production (2)
 TA 337. Design: Costume Design (3)
 TA 345A. Theatre Movement: Period Manners and Stage Encounters (2)
 TA 345B. Theatre Movement: Physical Characterization (2)
 TA 382. Readers Theatre in the Classroom (4)
 TA 385. Acting for Non-Majors (4)
 TA 481. Creative Drama in the Classroom (4)

5. *Upper-division Spanish Language Skills: Eight units as follows:*

Span 302. Theory and Practice in Composition (4)
 Span 415. Comparative Linguistics: Spanish/English (4)

6. *Integrative Capstone in the Humanities (G.E.): Four units chosen from:*

Hum 319. Myth, Metaphor and Symbol (4)
 Hum 325. Perspectives on Gender (Meets the requirement in category F1.) (4)
 Hum 330. Arts and Ideas (4)
 Hum 340. Interpretation and Values (4)
 Hum 344. Ideas in American Culture (4)
 Hum 380. Comparative Studies in the Arts and Literature of Western and NonWestern Cultures (4)
 Hum 385. A Cultural History of Fashion (4)
 Hum 390. Media America (Meets the requirement in category F1.) (4)

Note: *Students can receive credit for only one of the following courses:*

Hum 325. Perspectives on Gender
 NSci 325. Perspectives on Gender
 SSci 325. Perspectives on Gender

C. Mathematics and Natural Sciences Breadth Area (32 units)

1. *Mathematics (G.E.):*

Four units chosen from:

Math 110. College Algebra (4)
 Math 115. The Ideas of Mathematics (4)
 Math 120. Pre-Calculus Mathematics (4)
 Math 211. Basic Concepts of Calculus (4)

2. *Mathematical Applications:*

Four units chosen from:

- Math 211. Basic Concepts of Calculus (4)
- Math 212. Calculus II (4)
- Math 302. Problem Solving in Mathematics (4)

Note: Math 211. Basic Concepts of Calculus may not be taken for credit by students who have received credit for this course in category C1.

3. *Life Science (G.E.):*

Five units chosen from:

- Biol 100. Topics in Biology (5)
- Biol 200. Biology of the Cell (5)
- Biol 201. Biology of Organisms (5)
- Biol 202. Biology of Populations (5)
- HSci 120. Health and Society: An Ecological Approach (5)

4. *Physical Science (G.E.):*

A minimum of five units chosen from:

1. Chem 100. Chemistry in the Modern World (5)
2. Chem 205. Fundamentals of Chemistry I: General Chemistry (5)
3. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
4. Geog 103. Physical Geography (5)
5. Geol 101. Physical Geology (5)
6. Phys 100. Physics in the Modern World (5)
7. Phys 103. Descriptive Astronomy (5)
8. Phys 121. Basic Concepts of Physics I (5)
9. Phys 221. General Physics I (5)

5. *Special Topics in Science in Technology (G.E.):*

Two units chosen from:

- Biol 216. Genetics and Society (2)
- Biol 217. Biology of Sexually Transmitted Diseases (2)
- Chem 105. Chemicals in Our Environment (2)

6. *Mathematics and Natural Sciences Electives:*

a. *Credential candidates, eight units as follows:*

- CSci 127. Introduction to Computer Technology for Educators (4)
- Math 301. Basic Mathematics for Educators (4)

b. *Non-credential candidates, eight units, at least four units must be upper-division, chosen from:*

- biology, chemistry, computer science, earth science, health science, mathematics, natural sciences or physics courses. *At least two units must be drawn from:*
- CSci 121. Computer Technology and People (2)
- CSci 123. Using Computer Software (2)
- CSci 125. Programming in BASIC (2)

- CSci 127. Introduction to Computer Technology for Educators (4)

Note: *Students CANNOT RECEIVE CREDIT FOR BOTH:*

- CSci 121. Computer Technology and People and
 - CSci 127. Introduction to Computer Technology for Educators
- OR**
- CSci 123. Using Computer Software and
 - CSci 127. Introduction to Computer Technology for Educators

7. *Integrative Capstone in the Natural Sciences (G.E.):*

Four units chosen from:

- NSci 300. Science and Technology (4)
- NSci 310. The Environment and Human Survival (4)
- NSci 312. Scientific Contributions to the Development of Civilization (4)
- NSci 314. Life in the Cosmos (4)
- NSci 320. Energy (4)
- NSci 325. Perspectives on Gender (Meets the requirement in category F1.) (4)
- NSci 351. Health and Human Ecology (4)

Note: *Students may receive credit for only one of the following courses:*

- Hum 325. Perspectives on Gender
- NSci 325. Perspectives on Gender
- SSci 325. Perspectives on Gender

D. Social and Behavioral Sciences Breadth Area (32 units)

1. *American History and Civilization (G.E.):*

Four units chosen from:

- Hist 200. United States History to 1877 (4)
 - Hist 201. United States History 1877 to the Present (4)
 - SSci 146. American Civilization (4)
2. *American Institutions (G.E.):*
- PSci 203. American Government (4)

Note: The American history, Constitution, State and Local Government requirement can be met by taking Political Science 203 and either History 200, History 201, or Social Sciences 146. If this requirement is met by examination, then students still must take sixteen units of lower-division course work in categories D1 through D4.

3. *World Cultures (G.E.):*

Four units chosen from:

- SSci 140. World Civilizations I, The Rise of Civilization (4)
- SSci 142. World Civilizations II, The Civilizations of the East and the West (4)

- SSci 144. World Civilizations III, The Expansion of Europe (4)
- SSci 165. Regions and Peoples of the World (4)
4. *Discipline Perspectives (G.E.):*
Four units chosen from:
- Anth 100. Introduction to Anthropology: Human Evolution (4)
- Anth 102. Introduction to Anthropology: Culture and Society (4)
- Econ 104. Introduction to Economics (4)
- Geog 100. Introduction to Human Geography (4)
- PSci 100. Introduction to Political Science (4)
- Psyc 100. Introduction to Psychology (4)
- Soc 100. The Study of Society (4)
5. *Social Science Electives:*
- a. *Credential candidates, twelve units as follows:*
1. Psyc 320. Psychology of Middle Childhood (4)
 2. *Eights units from Historical and Anthropological contexts chosen from:*

Anth 354. Cultures of Mexico and Central America (4)

Anth 356. Cultures of South America (4)

Hist 390. History of Mexico (4)

Hist 391. Chicano History (4)

Hist 470. Modern Latin America (4)
- b. *Noncredential candidates, twelve units as follows:*
1. *Eights units from Historical and Anthropological contexts chosen from:*

Anth 354. Cultures of Mexico and Central America (4)

Anth 356. Cultures of South America (4)

Hist 390. History of Mexico (4)

Hist 391. Chicano History (4)

Hist 470. Modern Latin America (4)
 2. *Four upper-division units chosen from:* anthropology, criminal justice, economics, geography, history, political science, psychology, social sciences, sociology and women's studies.
6. *Integrative Capstone in the Social and Behavioral Sciences (G.E.):*
Four units chosen from:
- SSci 300. Nonwestern World (4)
- SSci 315. Cultural Adaptation: The Quest for Survival (4)
- SSci 316. Race and Racism (Meets the requirement in category F1.) (4)
- SSci 321. Urbanization and the Urban Environment (4)
- SSci 325. Perspectives on Gender (Meets the requirement in category F1.) (4)
- SSci 343. Understanding Socialism (4)

- SSci 345. Religious Expression in America (4)
- SSci 350. Roots of Modern Racism in America (4) (Meets the requirement in category F1.)

Note: *Students may receive credit for only one of the following courses:*

- Hum 325. Perspectives on Gender
- NSci 325. Perspectives on Gender
- SSci 325. Perspectives on Gender

E. Lifelong Understanding (6 units)

1. *The Whole Person - physical and physiological issues (G.E.):*
Two units chosen from:

NSci 110. Health and Self Care (2)

PE 205. Foundations for Lifetime Fitness (2)
2. *The Whole Person - social and psychological issues (G.E.):*

Psyc 115. Personal and Social Adjustment (2)

Soc 110. Choices in the Life Course (2)
3. *Physical Education (G.E.):*
 - a. *Noncredential candidates, two units chosen from:*

PE 101. Individual and Dual Activities (2)

PE 114. Physical Fitness and Conditioning Activities (2)

PE 117. Combative Activities (2)

PE 121. Team Activities (2)

PE 137. Aquatic Activities (2)

PE 141. Dance Activities (2)

PE 146. Outing Skills Activities (2)

PE 147. A Fitness Odyssey (2)

PE 148. Leisure Sports (2)

PE 149. Independent Activity Project (2)
 - b. *Credential candidates, two units chosen from courses listed in (3a) above. Students are encouraged to elect a dance course, P.E. 141.*

F. Multicultural/Gender Category

All students must take one upper-division course designated as meeting this requirement, chosen from groups 1 or 2 below:

1. An appropriate Integrative Capstone course in one of the following categories: B6, C7, or D6.
2. An upper-division course that also fulfills the general elective requirement in category G1.

G. General Education Elective Options Category (4-8 units)

A minimum of four units must be taken from this category to satisfy general education requirements. As noted in category A2 above, students who pass the 495 proficiency examination must take four units of upper-division

general education courses in this category in addition to the minimum four elective units. COURSES COUNTED IN THIS CATEGORY CAN NOT BE COUNTED ELSEWHERE IN LIBERAL STUDIES.

1. Upper-division general education elective courses that satisfy the multicultural/gender requirement:

- Anth 325. Human Variation and the Concept of Race (4)
- Anth 333. Sex and Gender in Cross-Cultural Perspective (4)
- Comm 304. Intercultural Communication (4)
- Econ 352. The Economics of Poverty and Discrimination (4)
- Eng 314. American Indian Literature (4)
- Hum 460. Cultural Studies (4)
- Phil 364. Philosophy of Race and Gender (4)

2. Other elective courses: Lower-division course work from any of the areas marked (G.E.) in categories A through D above that is in excess of the units required (including French 101, Spanish 101 and German 101) or units drawn from the courses that follow:

- Art 210. Western Art History (4)
- Comm 202. Mass Communication in America (4)
- CSci 123. Using Computer Software (2)
- CSci 125. Programming in BASIC (2)
- CSci 127. Introduction to Computer Technology for Educators (4)
- Eng 140. Major American Authors (4)
- Mus 225. Music in the Theatre (4)
- Mus 235. Popular Music Literature (4)
- Psyc 201. Developmental Psychology (4)
- WStd 200. Introduction to Women's Studies (4)

Note: Students CANNOT RECEIVE CREDIT FOR BOTH:

CSci 121. Computer Technology and People

and

CSci 127. Introduction to Computer Technology for Educators

OR

CSci 123. Using Computer Software and

CSci 127. Introduction to Computer Technology for Educators

Note: Students cannot receive credit for both:

Psyc 201. Developmental Psychology

Psyc 320. Psychology of Middle Childhood

H. Spanish Studies (20 units)

Note: Course work credited elsewhere in the bilingual/cross-cultural emphasis cannot

be counted in the concentration. Spanish 101, 102 or 150 can fulfill the general education elective option, category G2:

1. Anth 330. Cross-Cultural Child-Rearing Practices (4)
2. Anth 354. Cultures of Mexico and Central America (4)
3. Anth 356. Cultures of South America (4)
4. Anth 460. Language and Culture (4)
5. Art 328. Mexican Art (4)
6. EELB 536. Teaching in a Multicultural Society (4)
7. FLan 320. Masterpieces of Literature (4)
8. Hist 390. History of Mexico (4)
9. Hist 391. Chicano History (4)
10. Hist 470. Modern Latin America (4)
11. IS 460. Aspects of Chicano Culture (4)
12. Mus 351. Latin American Music (4)
13. Span 101. College Spanish I (4)
- and
- Span 102. College Spanish II (4)
14. Span 150. Intermediate Spanish (4)
- or
- Span 155. Intermediate Spanish for Spanish Speakers (4)
15. Span 312. Techniques for Professional Interpreting and Translating in Spanish (4)
16. Span 314. Advanced Conversation (4)
17. Span 316. Spanish for the Professions (4)
18. Span 400. Masterpieces in Spanish and Spanish-American Literature (4)
19. Span 402. Advanced Composition (4)
20. Span 440. Mexican Literature (4)
21. Span 514. Seminar in Hispanic Language or Literature (4)

TEACHING CREDENTIAL PROGRAM

For full information regarding requirements for teaching credentials and admission to the credential program, see Page 138. Students should contact the School of Education Student Teaching soon after their initial enrollment at the university to indicate their interest in pursuing a teaching career

and to obtain more detailed information about the process of applying for admission to the credential program.

Please note that prior to admission to student teaching, liberal studies students must have a 2.86 cumulative grade-point average and be assessed and recommended by the liberal studies faculty for subject matter competency and pass the California Basic Educational Skills Test (CBEST).

In order to complete the professional education sequence and qualify to student teach during their senior year, liberal studies majors should plan their course of study carefully and include the following prerequisite courses in their undergraduate program:

1. Educ 200. Introduction to Careers in Education
2. Educ 332. Psychological Foundations of Education (previously Education 330) (May be applied toward the 45-unit requirement for a clear credential only if taken during the last quarter of the senior year.)
3. ERdg 345A. Reading in the Elementary School: Multiple Subject (May be applied toward the 45-unit requirement for a clear credential only if taken during the last quarter of the senior year.)
4. Psyc 100. Introduction to Psychology
5. Psyc 320. Psychology of Middle Childhood

During the last two terms of the senior year (or as a post-baccalaureate student if necessary) multiple subject credential candidates must also complete the following courses: (The following courses may be applied toward the 45-unit requirement for a clear credential only if taken during the last quarter of the senior year.)

1. EEIB 340. Elementary Curriculum and Methods I
 2. EEIB 341. Elementary Curriculum and Methods II
- or
- EEIB 344. Curriculum and Methods for Bilingual/Cross-Cultural Education (for bilingual/cross-cultural emphasis only)
 3. EEIB 343. Elementary Curriculum and Methods III
 4. EEIB 410A. Elementary Student Teaching
 5. EEIB 410B. Elementary Student Teaching
 6. EEIB 410C. Elementary Student Teaching

MANAGEMENT

Department of Management

Administration Building, Room 153
880-5731

The university offers concentrations in management within the Bachelor of Arts in Administration and the Master of Business Administration. Certificates in General Business, Human Resources Management and Small Business Management are also available. The details of these programs are listed under Administration (Page 79). The Master of Business Administration can be found on Page 325. The courses listed below are offered in support of these programs. Further information is available from the Department of Management.

The Management Department encourages its majors to take part in the California State University's International Programs. These programs provide opportunity for CSUSB students to study in a foreign country and earn full resident credit for these studies. Participation in this program will enhance the student's ability to study and work in an international business setting.

For students in management, International Programs are particularly useful in an increasingly competitive global environment where knowledge of diverse cultures, beliefs and societies is essential for success in business. By joining the California State University's International Programs students will have taken a major step in preparing themselves for rewarding careers in the business world of the future. For further information see Page 21.

COURSE OFFERINGS IN MANAGEMENT (Mgmt)

Lower Division

100. Introduction to Business and Public Administration

Introduction to the administrative process. Strategies to achieve success in business and public careers. Includes the development of administrative theories and practices and provides an overview of the functional areas of Business and Public Administration. Examines the questions of ethics, small business management and the global aspects of administration. (4 units)

230. Business Law

An introduction to statutory and common law developments impacting commercial transactions. Emphasizes principles of contract law and sale of goods under the Uniform Commercial Code. Additional topics include business organizations, commercial paper and secured transactions. (4 units)

Upper Division

Enrollment in upper division courses restricted to students who have met all prerequisites and have completed at least 89.9 quarter units (junior class level). Students who do not meet these requirements will be disenrolled.

302. Management and Organizational Behavior

Introduction to management as it affects operations and the behavior of people in relation to the functional fields of administration. Selected behavioral concepts analyzed with respect to applications in management. (Also offered as Psychology 302. Students may not receive credit for both.) (4 units)

330. Legal Environment of Business

Study of the legal system; nature and source of law as applied to business activity; statutes and significant cases involving business policies; effect of public policies on private enterprise system. *Prerequisite: Management 230.* (4 units)

335. Business and Society

Evaluation of American business systems; political, legal and social factors influencing business; role of business in alleviating society's problems; problems and issues of current concern regarding women and minorities in management. May not be taken for credit by students who have received credit for Management 530. (4 units)

350. Administrative Communications

Introduction to communication theory. Concepts, analysis and methods of improvement for interpersonal communication, communication within organizations and communication between organizations and their external environments. (4 units)

355. Management of Administrative Conflict

Emphasis on development of conflict, theories of administrative conflict and methods of resolving such conflict. *Prerequisite: Management 302 or Psychology 302.* (4 units)

402. Studies in Organizational Behavior

Review and presentation of selected areas of behavioral science research and its application to management practices. Selected subjects may include: motivation, communication, change and leadership. *Prerequisite: Management 302 or Psychology 302.* (4 units)

403. Interpersonal Relations

Interpersonal relationships between managers and their supervisors, peers and subordinates, with emphasis on policy development and implementation. (Also offered as Communication 403. Students may not receive credit for both.) (4 units)

405. Management of International Operations

Comparative analysis of management practices in various cultures with emphasis on sociocultural, political and economic influences. Need for adaptation of business practices to local environment is stressed. *Prerequisite: Management 302 or Psychology 302.* (4 units)

432. Human Factors in System Development

Principles of human factors design applied to the user-system interface in business, industrial, computer, control and information management systems. May not be taken for credit by students who have received credit for

Management 532. *Prerequisite: Management Science 210 or Mathematics 305 or 350 or Psychology 210.* (4 units)

442. Small Business Management

Managerial considerations for the small business entrepreneur. Acquisitions, location, legal considerations, finances, taxation, labor relations and other topics. (4 units)

451. Organization and Management Theory

Development and analysis of organization and management theory. Comparative analysis seeking patterns and systematic explanation of differences among organizations. Dynamics of interaction between organizations and environment. *Prerequisite: Management 302 or Psychology 302.* (4 units)

455. Human Resources Management

Policies relating to human resources; manpower planning, personnel selection and development, performance appraisal, compensation, relationships with unionized employees, collective bargaining. *Prerequisite: Management 302 or Psychology 302.* (4 units)

456. Psychology of Human Resources

Review of research in application of psychology to selection, evaluation and training of human resources. Topics include fair employment legislation, job analysis methodologies, merit evaluation, interviewing techniques and psychometric methods. *Prerequisites: Management 455 or Psychology 355 and Management Science 210, Mathematics 305, Psychology 210, or Social Science 215.* (4 units)

457. Industrial and Labor Relations

Social forces leading to collective employee action in relation to labor legislation and collective bargaining. Utilizes current development, case law and bargaining simulation. *Prerequisite: Management 455.* (4 units)

458. Fair Employment Practices

An evaluation of fair employment practices in employment. Course emphasizes antidiscriminatory legislation and its application to employer-employee relationships. *Prerequisite: Management 455.* (4 units)

459. Work Group Management

Intensive examination of the dynamics of task-oriented groups, utilizing both conceptual and experiential learning. *Prerequisite: Management 302 or Psychology 302.* (4 units)

490. Administrative Strategy and Policy

An integrative, problem-solving approach to problems which confront the administrator. Topics are explored by utilizing skills and techniques developed in previous course work. *Prerequisites: administration core and senior standing.* (4 units)

495. Expository Writing for Administration

Writing related to business and public administration including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. May not be counted for fulfilling concentration requirements for any degree program offered by the School of Business and Public Administration. No more than one of the expository writing courses (Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Students who have

received a grade of no credit in any combination of the expository writing courses two or more times must meet with the 495 coordinator or designee to design a developmental writing plan as a condition for enrolling for a third quarter. All students must obtain junior status at the time of registration or their course request will be cancelled. Graded A, B, C/no credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (4 units)

515. Small Business Consulting

Supervised consulting assignments designed to provide meaningful business assistance to small businesses. *Prerequisites: consent of instructor and school.* (4 units)

575. Internship in Management

Supervised work and study in private business organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and department.* (4 units)

590. Seminar in Management

An intensive study of some phase of management to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units.)

MANAGEMENT SCIENCE

Department of Information and Decision Sciences

Administration Building, Room 198
880-5723

The university offers concentrations in management science within the Bachelor of Arts in Administration, the Bachelor of Science in Administration and the Master of Business Administration. The details of these programs are listed under Administration (Page 79). The Master of Business Administration can be found on Page 325. The courses listed below are offered in support of these programs. Further information is available from the Department of Information and Decision Sciences.

COURSE OFFERINGS IN MANAGEMENT SCIENCE (MSci)

Lower Division

210. Applied Business Statistics

An introduction to statistical reasoning and application of primary statistical techniques used in solving managerial problems. Covers both descriptive and inferential statistics. A self-paced version of this course (Management Science 210A) is also available. (Students may not receive credit for more than one of the following courses: Management Science 210, 210A, Psychology 210 or Social Sciences 215.) (4 units)

Upper Division

Enrollment in upper division courses restricted to students who have met all prerequisites and have completed at least 89.9 quarter units (junior class level). Students who do not meet these requirements will be disenrolled.

304. Principles of Production and Operations Management

Introduction to Production/Operations Management concepts and techniques. Quantitative methods that aid the manager in making rational decisions in manufacturing and service industries are discussed. Emphasis is on the application of models to managerial decision making. A self-paced version of this course (Management Science 304A) is also available. Students may not receive credit for both Management Science 304 and Management Science 304A. *Prerequisites: Mathematics 110 or 120 and Management Science 210.* (4 units)

355. Statistical Software

An intensive study of statistical computer packages that are available for micro-, mini- and mainframe computers. Various statistical packages are explored, such as SPSS, SAS, and BMDP. *Prerequisite: Management Science 210.* (2 units)

360. Statistical Analysis for Management

Application of probabilistic models and statistical decision theory to decision-making within the enterprise; techniques for optimization of administrative decisions. *Prerequisites: Management Science 304, Mathematics 190, and one of the following: Management Science 210 or Mathematics 305 or 350.* (4 units)

400. Quantitative Decision Methods

Quantitative methods of analysis used in solution of administrative problems, including linear programming and calculus applications. *Prerequisites: Management Science 304, Mathematics 190, and one of the following: Management Science 210 or Mathematics 305 or 350.* (4 units)

466. Production Planning and Operations Research

Production and operations planning and control methodologies using quantitative approaches and models. The emphasis in the course is application of both deterministic and stochastic models in tangible goods and service organizations. *Prerequisites: Management Science 210, 304 and Mathematics 110.* (4 units)

467. Research Methods

Principles of research design, development of research instruments, data accumulation and manipulation for the operations research area. Students conduct research projects and learn the theory and methods of industrial research. *Prerequisites: Management Science 210, 304 and 360.* (4 units)

468. Advanced Production Management

Advanced topics in production and operation management using various methodologies such as quantitative, statistical and computer modeling, with an emphasis on industrial and service organization applications. *Prerequisite: Management Science 466.* (4 units)

470. Inventory Control

Introduction to inventory control in the manufacturing and service organization environment focusing on the theory and practice of the development, application and quality control aspects of inventory control. *Prerequisites: Management Science 210, 304 and 360.* (4 units)

499. Practicum in Management Science

Integration and application of quantitative, statistical and computer modeling in case studies and field research of various organizational environments. *Prerequisite: consent of instructor.* (2 units)

504. Quantitative Tools for Management

Intensive introduction to applied topics in statistics, algebraic functions and linear programming for graduate students. No credit will be awarded to students who have had all of the following: Management Science 210 or Mathematics 150 or 305 or 350, Management Science 304 and Mathematics 110 or 120. May not be counted toward fulfilling requirements for any degree program offered by

the School of Business and Public Administration or the School of Natural Sciences. (Also offered as Mathematics 504. Students may not receive credit for both.) (4 units)

575. Internship in Management Science

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisite: consent of instructor and school.* (4 units)

590. Seminar in Management Science

An intensive study of some phase of Management Science to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units.)



MARKETING

Department of Marketing

Administration Building, Room 135
880-5749

The university offers concentrations in marketing within the Bachelor of Arts in Administration, the Bachelor of Science in Administration and the Master of Business Administration. A Certificate in Marketing Management is also available. The details of these programs are listed under Administration (Page 79). The Master of Business Administration can be found on Page 325. The courses listed below are offered in support of these programs. Further information is available from the Department of Marketing.

In today's business world, growing numbers of U.S. companies both large and small are getting involved in international marketing. Because of this increased involvement in international business, marketing students are encouraged to participate in the California State University's International Program. For further information, see Page 21.

COURSE OFFERINGS IN MARKETING (Mktg)

Upper Division

Enrollment in upper division courses restricted to students who have met all prerequisites and have completed at least 89.9 quarter units (junior class level). Students who do not meet these requirements will be disenrolled.

305. Marketing Principles

Marketing functions including products, channels, pricing and promotion. (4 units)

410. Consumer Behavior

Nature and determinants of consumer attitudes, consumption and purchasing behavior. *Prerequisite: Marketing 305.* (4 units)

415. Product Management

Innovation, development, extension, management and strategy formulation of products. *Prerequisite: Marketing 305.* (4 units)

420. Advertising

Stimulation of market demand through advertising media, including printed messages, radio and television, developing the advertising appeal, selecting the media, placing copy and measuring results. Consideration of social consequences of advertising. *Prerequisites: Marketing 305 and 410.* (4 units)

423. Advertising Campaign

Elements and processes by which an advertising campaign is conceived and designed. Students develop a full marketing and advertising campaign for a national product or service. Components include appeal, market

research, media evaluation, insertion scheduling and creative aspects. *Prerequisite: Marketing 305.* (4 units)

426. Sales Promotion

The study of marketing activities that stimulate purchasing, including advertising specialties, point-of-purchase materials, demonstrations, sampling, trade show exhibits, coupons, refunds and rebates, premiums, contests, sweepstakes, and recognition programs. *Prerequisite: Marketing 305.* (4 units)

430. Sales Techniques

Introduction to sales principles and the development of sales techniques. Consideration of ethics in selling. *Prerequisite: Marketing 305.* (4 units)

431. Sales Management

Activities and organization of the sales department. Recruiting, hiring, training and managing the sales force. *Prerequisite: Marketing 305.* (4 units)

438. Industrial Marketing

Analysis of the purchasing and marketing of industrial goods and services in businesses, government and other institutions. Buying motives and practices for industrial goods, sales forecasting, product strategy, pricing, advertising and trade channels. *Prerequisite: Marketing 305.* (4 units)

440. Marketing Research

Analysis of markets, survey methodology, sample design, quantitative techniques in market research projects. *Prerequisites: Marketing 305; and one of the following: Management Science 210 or Mathematics 305.* (4 units)

444. Market Research Practicum

Market research projects of real business problems, including data collection and analysis. Multivariate techniques such as factor analysis, cluster analysis, multiple discriminate analysis, MANOVA, multi-dimensional scaling, etc., are used for data analysis. *Prerequisite: Marketing 440.* (4 units)

445. Advertising Research

Analysis and tests of advertising concepts. Media effectiveness, message and source characteristics are examined. *Prerequisites: Marketing 420 and 440.* (4 units)

450. Distribution

Physical distribution system and its elements - packaging, transportation, warehousing and inventory management. Emphasis on control of risk by planning, selecting and supervising elements of distribution. *Prerequisites: Management Science 210 or Mathematics 305 or 350; and Marketing 305.* (4 units)

460. Retailing

History, development, organization and management of retail institutions. Emphasis is on retail store operations, such as location, layout, planning, control of budgets, personnel, pricing and customer services. *Prerequisite: Marketing 305.* (4 units)

462. Merchandising

Analysis of the merchandising field. Emphasis on the history, development and growth of retail and vendor methods of operation and display. Examination of current trends and exposure to existing opportunities. *Prerequisite: Marketing 305.* (4 units)

470. International Marketing Management

Marketing strategies for developing global markets including the cultural, political, and economic infrastructure of foreign markets and their impact on traditional marketing decisions. *Prerequisite: Marketing 305.* (4 units)

472. Import-Export Management

Current practices and opportunities in importing and exporting goods with emphasis on preparing products for foreign shipment, shipping, necessary documentation and use of free trade zones. *Prerequisite: Marketing 305.* (4 units)

496. Marketing Planning and Strategy

Strategies and techniques in marketing management. Student is required to apply prior material from the marketing curriculum to contemporary marketing problems. Emphasis is on decision-making in such matters as product, pricing, distribution, and promotional strategies. *Prerequisites: successful completion of four (16 units) 400- or 500-level Marketing courses.* (4 units)

575. Internship in Marketing

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

590. Seminar in Marketing

An intensive study of some phase of marketing to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units.)

MATHEMATICS

Department of Mathematics

*Biological Sciences Building, Room 111
880-5361*

Bachelor of Arts

Mathematics

Bachelor of Science

Mathematics

Teaching Credential Program

Mathematics

Minor

Mathematics

Master of Arts in Teaching

Mathematics

(Degree requirements can be found on Page 380.)

Certificate Program

Teaching Basic Mathematics

As the role of mathematics in society continues to grow, the value of a solid foundation in mathematics is reinforced. The Department of Mathematics offers a broad program of university course work with a Liberal Arts emphasis, leading to either a bachelor of arts or bachelor of science degree. Such a program of study is flexible enough to prepare a student for positions in industry, business, teaching, or for advanced study toward a graduate degree in mathematics.

Additionally, double majors are not uncommon since the Departments of Computer Science and Physics work closely with the Department of Mathematics in structuring their mathematically based courses.

The department also offers an innovative Master of Arts in Teaching degree. This program, with its emphasis on subject matter content, is designed to serve both those interested in teaching mathematics in the community colleges and also those intent on becoming mathematics resource specialists. An effort is made to offer the core courses in this program in the evening to accommodate the working student. For information on this degree, see Page 380.

In many ways Mathematics functions as a universal language in today's global culture. Upper-division students are encouraged to participate in the California State University's International Programs. For further information, see Page 21.

B.A. IN MATHEMATICS

Requirements (72 units)

Requirements for the B.A. in Mathematics:

Lower-division requirements (24 units)

1. CSci 201. Computer Science I (4)
or
CSci 240. Scientific FORTRAN (4)
2. Math 211. Basic Concepts of Calculus (4)
3. Math 212. Calculus II (4)
4. Math 213. Calculus III (4)
5. Math 251. Multivariable Calculus I (4)
6. Math 252. Multivariable Calculus II (4)

Upper-division requirements (48 units)

1. Math 331. Linear Algebra (4)
2. Math 345. Number Theory and Proof (4)
3. Math 355. Analysis and Proof (4)
4. Math 372. Combinatorics (4)
5. Math 465. Probability Theory (4)
6. Math 545. Abstract Algebra I (4)
7. Math 553. Analysis I (4)
8. *Twenty units of Mathematics electives chosen from the following in consultation with an advisor:*
 1. Math 270. Elementary Differential Equations (4)
 2. Math 373. Mathematical Methods of Physics I (4)
or
Phys 373. Mathematical Methods of Physics I (4)
 3. Math 411. Introduction to Mathematical Logic (4)
 4. Math 470. Ordinary Differential Equations (4)
 5. Math 473. Mathematical Methods of Physics II (4)
or
Phys 473. Mathematical Methods of Physics II (4)
 6. Math 474. Numerical Methods (4)
 7. Math 510. Topics in Mathematics (4)
 8. Math 529. Advanced Geometry (4)
 9. Math 546. Abstract Algebra II (4)
 10. Math 554. Analysis II (4)
 11. Math 555. Introduction to Point-Set Topology (4)
 12. Math 557. Complex Variables (4)
 13. Math 565. Mathematical Statistics (4)
 14. Math 573. Mathematical Methods of Physics III (4)
or
Phys 573. Mathematical Methods of Physics III (4)
 15. Math 576. Introduction to Mathematical Models (4)

B.S. IN MATHEMATICS

Requirements (105 units)

Requirements for the B.S. in Mathematics:

Lower-division requirements (29 units)

1. CSci 201. Computer Science I (4)
or
CSci 240. Scientific FORTRAN (4)
2. Math 211. Basic Concepts of Calculus (4)
3. Math 212. Calculus II (4)
4. Math 213. Calculus III (4)
5. Math 251. Multivariable Calculus I (4)
6. Math 252. Multivariable Calculus II (4)
7. Phys 221. General Physics I (5)

Upper-division requirements (28 units)

1. Math 331. Linear Algebra (4)
2. Math 345. Number Theory and Proof (4)
3. Math 355. Analysis and Proof (4)
4. Math 372. Combinatorics (4)
5. Math 465. Probability Theory (4)
6. Math 545. Abstract Algebra I (4)
7. Math 553. Analysis I (4)

Electives (48 units)

Twenty-four units of Mathematics electives selected from the following with at least eight units chosen from 500-level courses:

1. Math 270. Elementary Differential Equations (4)
2. Math 373. Mathematical Methods of Physics I (4)
or
Phys 373. Mathematical Methods of Physics I (4)
3. Math 411. Introduction to Mathematical Logic (4)
4. Math 470. Ordinary Differential Equations (4)
5. Math 473. Mathematical Methods of Physics II (4)
or
Phys 473. Mathematical Methods of Physics II (4)
6. Math 474. Numerical Methods (4)
7. Math 510. Topics in Mathematics (4)
8. Math 529. Advanced Geometry (4)
9. Math 546. Abstract Algebra II (4)
10. Math 554. Analysis II (4)
11. Math 555. Introduction to Point-Set Topology (4)
12. Math 557. Complex Variables (4)
13. Math 565. Mathematical Statistics (4)
14. Math 573. Mathematical Methods of Physics III (4)

or

- Phys 573. Mathematical Methods of Physics III (4)
15. Math 576. Introduction to Mathematical Models (4)

Twenty-four units in approved additional courses beyond the general education requirements from at most two disciplines in the natural sciences.

TEACHING CREDENTIAL PROGRAM

Both the Bachelor of Arts and Bachelor of Science in Mathematics are approved as single subject teaching credential programs. In order to be recommended for the teaching credential students must complete the requirements of the major as well as certain prerequisites of the teacher education program. Prior to student teaching, students must demonstrate subject matter competence as assessed by the Department of Mathematics. For information about the professional education component, admission to the teacher education program or specific requirements for the single subject waiver program see Page 147 or contact the School of Education Credentials office.

MINOR IN MATHEMATICS

Requirements (36 units)

Requirements for a minor in Mathematics:

Lower-division requirements (24 units)

1. CSci 201. Computer Science I (4)
or
CSci 240. Scientific FORTRAN (4)
2. Math 211. Basic Concepts of Calculus (4)
3. Math 212. Calculus II (4)
4. Math 213. Calculus III (4)
5. Math 251. Multivariable Calculus I (4)
6. Math 252. Multivariable Calculus II (4)

Upper-division requirements (12 units)

1. Math 331. Linear Algebra (4)
 2. Math 345. Number Theory and Proof (4)
or
Math 355. Analysis and Proof (4)
 3. Four units of upper-division elective course work in Mathematics chosen from courses applicable to the major.
-

DEPARTMENTAL HONORS

The department faculty will determine whether a student is to be awarded departmental honors upon graduation. The criteria will be:

1. A grade-point average of at least 3.5 in all mathematics courses taken at this University and counted toward fulfilling requirements of the mathematics major.
2. Two (eight quarter units) upper-division mathematics courses beyond requirements of the major, passed with grades of "A-" or better. These courses may not include:
 - Math 301. Basic Mathematics for Educators
 - Math 302. Problem Solving in Mathematics
 - Math 305. Statistics: Hypothesis Testing and Estimation
 - Math 499. Teaching Mathematics
 - Math 504. Quantitative Tools for Management
 - Math 611. Operations Analysis

At least one of these additional courses must be an independent study course culminating in a presentation to the department.

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Teaching Basic Mathematics

Admission to the Program

1. A valid California teaching credential in a subject other than mathematics.

Certificate Requirements (32 units)

Lower-division requirements (20 units)

1. Math 110. College Algebra (4)
2. Math 115. The Ideas of Mathematics (4)
3. Math 120. Pre-Calculus Mathematics (4)
4. Math 129. Geometry in Two and Three Dimensions (4)
5. Math 211. Basic Concepts of Calculus (4)

Upper-division requirements (12 units)

1. Math 301. Basic Mathematics for Educators (4)
 2. Math 302. Problem Solving in Mathematics (4)
 3. Math 305. Statistics: Hypothesis Testing and Estimation (4)
- or
- Math 499. Teaching Mathematics (4)

Note: With departmental permission mathematics courses with a calculus prerequisite may be substituted for any of the following:

- Math 110. College Algebra
- Math 120. Pre-Calculus Mathematics
- Math 305. Statistics: Hypothesis Testing and Estimation

COURSE OFFERINGS IN MATHEMATICS (Math)

Lower Division

70. Fundamental Arithmetic

Fundamental topics in arithmetic, including a preview of algebra. Units awarded for Mathematics 70 are not applicable to a baccalaureate degree. Graded A, B, C/No Credit. (4 units)

75. Basic Mathematics

A full year course designed specifically for students who score at or within the lowest quartile on the entry level mathematics examination. Review of basic mathematics from counting through Algebra I. Natural numbers, integers, rational numbers, decimals, exponents, roots, solving equations, word problems, graphing linear equations, solving systems of linear equations, direct and inverse variation, Pythagorean theorem, angle measurement and construction, area, perimeter, similarity, congruence. Units awarded for Mathematics 75 are not applicable to a baccalaureate degree. Students can place out of the sequence and enroll in general education mathematics by achieving a passing score on the entry level mathematics examination. Graded credit/no credit.

- A. First Quarter (4 units)
- B. Second Quarter (4 units)
- C. Third Quarter (4 units)

80. Fundamental Algebra

Arithmetic operations, linear and quadratic equations, applications and introduction to graphing. Units awarded for Mathematics 80 are not applicable to a baccalaureate degree. Graded A, B, C/No Credit. (4 units)

90. Intermediate Algebra

Linear and quadratic equations and inequalities, algebraic fractions and rational equations, exponents, radicals and radical equations, applications to word problems. Units awarded for Mathematics 90 are not applicable to a baccalaureate degree. Graded A, B, C/No Credit. *Prerequisite: passage of the entry level mathematics examination or a satisfactory score on the appropriate placement test.* (4 units)

110. College Algebra

Functional notation, graphs and inverses of linear, polynomial, and rational functions, rational exponents, arithmetic and geometric progressions, logarithmic and exponential functions, systems of linear equations. Graded A, B, C/No Credit. *Prerequisites: passing score on the entry level mathematics examination and either satisfactory score on a placement test or passage of Mathematics 90.* (4 units)

115. The Ideas of Mathematics

Sets, propositional logic, and their application to topics from discrete mathematics including enumeration techniques and finite probability spaces. May not be taken for credit by students who have received credit for Mathematics 100. Graded A, B, C/No Credit.

Prerequisites: satisfactory score on the entry level mathematics examination and either a satisfactory score on a placement test or passage of Mathematics 90. (4 units)

120. Pre-Calculus Mathematics

Trigonometric functions, trigonometric identities, right angle trigonometry, complex numbers, conic sections, binomial theorem, induction. Graded A, B, C/No Credit.

Prerequisites: satisfactory score on the entry level mathematics examination, and either satisfactory score on a placement test or Mathematics 110. (4 units)

129. Geometry in Two and Three Dimensions

Axiomatic foundations of Euclidean geometry and their relation to absolute, affine, and ordered geometry. Isometry and similarity in the Euclidean plane and three-space. Inversive transformations and construction of the real projective plane. May not be taken for credit by students who have received credit for Mathematics 160.

Prerequisites: knowledge of elementary plane geometry and a satisfactory score on the entry level mathematics examination. (4 units)

180. Critical Thinking Through Problem Solving

Logical deduction. Inductive techniques such as analogy and generalization. Choice of appropriate representation, adequacy of given information, and strategic decisions within the problem solving process. Includes examples chosen from a wide variety of sources. (4 units)

190. Business Calculus

Introduction to differentiation and integration of functions of one variable, including algebraic, logarithmic and exponential functions, with business-related applications. *Prerequisite: Mathematics 110 with a grade of "B" or better, or Mathematics 120.* (4 units)

211. Basic Concepts of Calculus

An introduction to limits and continuity, differentiation of functions in one variable (including trigonometric functions) and antiderivatives with applications. May not be taken for credit by students who have received credit for Mathematics 200. *Prerequisites: satisfactory score on the entry level mathematics examination and either satisfactory score on a placement test or Mathematics 120.* (4 units)

212. Calculus II

Techniques and applications of integration, differentiation and integration of transcendental functions. May not be taken for credit by students who have received credit for Mathematics 201. *Prerequisite: Mathematics 211 (or 200) with a grade of "C" or better.* (4 units)

213. Calculus III

Sequences and series, numerical techniques, polar coordinates, parametric equations. May not be taken for credit by students who have received credit for Mathematics 202. *Prerequisite: Mathematics 212 (or 201) with a grade of "C" or better.* (4 units)

251. Multivariable Calculus I

Vectors and vector geometry in two and three dimensions. Elementary linear algebra. Multivariable functions. Partial and directional derivatives. May not be taken for credit by students who have received credit for Mathematics 202. *Prerequisite: Mathematics 212 (or 201) with a grade of "C" or better.* (4 units)

252. Multivariable Calculus II

Differentiation and integration of vector functions with applications, multiple integration, line and surface integrals. Theorems of Green, Gauss and Stokes. May not be taken for credit by students who have received credit for Mathematics 203. *Prerequisites: Mathematics 251, and 213 (or 202) with grades of "C" or better.* (4 units)

262. Applied Statistics

Basic concepts of probability and statistics. Important probability models such as the binomial, Poisson and normal. Statistical procedures, particularly in relation to estimation, hypothesis testing and modelling. Computer simulations and computations. *Prerequisite: Mathematics 120. Prerequisite or corequisite: Mathematics 211 (or 200).* (4 units)

270. Elementary Differential Equations

First order equations, second order linear equations, linear equations with constant coefficients, variation of parameters, applications. *Prerequisite: Mathematics 251 or 213 (or 202).* (4 units)

272. Discrete Mathematics

Boolean algebra. Computer arithmetic including hexadecimal, octal and binary numeration. Relations and functions. Vectors and matrices. Introduction to graph theory. *Prerequisites: satisfactory score on the entry level mathematics examination and a course in intermediate algebra.* (4 units)

Upper Division**301. Basic Mathematics for Educators**

Course designed to produce mastery in the presentation of fundamentals for those who are preparing to instruct others. May not be counted toward fulfilling requirements in the mathematics major. *Prerequisites: satisfactory score on the entry level mathematics examination; and completion of the general education requirement in mathematics or equivalent preparation.* (4 units)

302. Problem Solving in Mathematics

Use of induction, analogy, successive approximation and other heuristic techniques, illustrated by means of elementary and recreational problems. May not be counted toward fulfilling requirements in the mathematics major. *Prerequisite: satisfactory score on the entry level mathematics examination.* (4 units)

305. Statistics: Hypothesis Testing and Estimation

After a brief introduction to descriptive statistics, course will emphasize hypothesis testing and estimation, using packaged computer programs. May not be taken for credit by students who have received credit for Management Science 210, Mathematics 262, or 350, Psychology 210 or Social Sciences 215. *Prerequisite: one term of college mathematics.* (4 units)

331. Linear Algebra

Vector spaces over a field, linear dependence, dimension; matrices and systems of linear equations; special matrices and canonical forms; characteristic values and vectors; diagonalization of quadratic forms; applications. A knowledge of a computing language is strongly recommended. *Prerequisite: Mathematics 251 (or 202) or consent of instructor.* (4 units)

345. Number Theory and Proof

Techniques of proof and historical topics in classical number theory. Theory of divisibility, primes and linear congruences. Theorems of Fermat, Euler and Wilson. Primitive roots and indices. Number theoretic functions. *Prerequisite: Mathematics 213 (or 202).* (4 units)

355. Analysis and Proof

Introduction to ideas and techniques of proof with an emphasis on analysis. Topics chosen from: logic, set theory, functions, cardinality and analysis. *Prerequisite: Mathematics 213 (or 202).* (4 units)

372. Combinatorics

Permutations and combinations, recurrence relations with applications and topics in graph theory. May not be taken for credit by students who have received credit for Mathematics 335. *Prerequisite: Mathematics 213 (or 202) or consent of instructor.* (4 units)

373. Mathematical Methods of Physics I

Vector analysis, matrices and introductory complex analysis. Applications of ordinary differential equations and Laplace transforms. Emphasis on techniques applicable to the problems of physics. (Also offered as Physics 373. Students may not receive credit for both.) May not be taken for credit by students who have received credit for Mathematics 310 or Physics 310. *Prerequisites: Physics 222 and one of the following: Mathematics 252 (or 202 and 203). Mathematics 331 is recommended.* (4 units)

395. Directed Study

Reading and library research in mathematics conducted under the direction of a faculty member. *Prerequisites: consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 4 units)

411. Introduction to Mathematical Logic

Propositional and quantificational logic, completeness and consistency results, formal systems, Peano arithmetic, recursive functions, Godel's incompleteness theorem. *Prerequisite: Mathematics 345.* (4 units)

465. Probability Theory

Probability spaces, independence, conditional probability, densities, mass and distribution functions, moments, joint and marginal distributions, moment generating functions, Chebychev's inequality, law of large numbers and other topics. May not be taken for credit by students who have received credit for Mathematics 340. *Prerequisites: Mathematics 372 (or 335) and 252 (or 202).* (4 units)

470. Ordinary Differential Equations

Topics from among: first order equations, linear equations, systems of equations, iterative methods, series solutions, Laplace transformations, applications. May not

be taken for credit by students who have received credit for Mathematics 360. *Prerequisites: Mathematics 331 and 270.* (4 units)

473. Mathematical Methods of Physics II

A continuation of Mathematics 373 or Physics 373 with emphasis on advanced topics including Fourier transforms, functions of a complex variable and partial differential equations. Additional topics chosen from: tensor analysis, linear algebra and ordinary differential equations. (Also offered as Physics 473. Students may not receive credit for both.) May not be taken for credit by students who have received credit for Mathematics 425 or Physics 425. *Prerequisite: Mathematics 373 (or 310) or Physics 373 (or 310). Mathematics 331 and Physics 223 are strongly recommended.* (4 units)

474. Numerical Methods

Introduction to numerical methods for finding solutions of non-linear equations, systems of linear equations and ordinary differential equations. Discussion of errors and numerical instabilities; numerical differentiation; numerical integration. May not be taken for credit by students who have received credit for Mathematics 420. *Prerequisites: Computer Science 201 and Mathematics 252 (or 203).* (4 units)

499. Teaching Mathematics

Individualized instruction in the methods and materials for the teaching of mathematics. This course requires background preparation at least equivalent to Mathematics 120, 129 or 160 and 302. Students in doubt on this point should consult with the Mathematics department before enrolling. This course may not be counted toward fulfilling requirements of the mathematics major. *Prerequisites: Education 330, senior or graduate standing and admission to the single subject credential program or consent of the School of Natural Sciences.* (4 units)

504. Quantitative Tools for Management

An intensive introduction to applied topics in statistics, algebraic functions and linear programming for graduate students. No credit will be awarded to students who have completed the following combination of courses: Management Science 304, Mathematics 110 or 120, and Management Science 210 or Psychology 210 or Mathematics 305 (or 350). May not be counted toward fulfilling requirements for any degree program offered by the School of Administration or the School of Natural Sciences. (Also offered as Management Science 504. Students may not receive credit for both.) (4 units)

510. Topics in Mathematics

Study of selected areas of advanced mathematics. May be repeated for credit with consent of instructor as topics change. *Prerequisite: senior or graduate standing.* (4 units)

529. Advanced Geometry

Topics in affine and projective geometry with applications to Euclidean 2 and 3 space and to modern algebra. May not be taken for credit by students who have received credit for Mathematics 539. *Prerequisites: Mathematics 331 and 345.* (4 units)

545. Abstract Algebra I

An introduction to algebraic structures, including groups, rings and fields. May not be taken for credit by students who have received credit for Mathematics 570A.

Prerequisites: Mathematics 331 and 345. (4 units)

546. Abstract Algebra II

Continuation of Mathematics 545. May not be taken for credit by students who have received credit for Mathematics 570B. *Prerequisite: Mathematics 545 (or 570A).* (4 units)

553. Analysis I

Continuous and differentiable functions, infinite series. Uniform convergence, computation with series, functions represented by integrals, theory of integration. May not be taken for credit by students who have received credit for Mathematics 550A. *Prerequisites: Mathematics 252 (or 203), and 355.* (4 units)

554. Analysis II

Continuation of 553. May not be taken for credit by students who have received credit for Mathematics 550B. *Prerequisite: Mathematics 553 (or 550A).* (4 units)

555. Introduction to Point-Set Topology

Topics to include topological and metric spaces, compactness, product spaces, connectedness, separation properties. May not be taken for credit by students who have received credit for Mathematics 560C. *Prerequisite: Mathematics 355.* (4 units)

557. Complex Variables

Analytic and harmonic functions, power series, Cauchy's Theorem and Cauchy's Formula. May not be taken for credit by students who have received credit for Mathematics 560B. *Prerequisites: Mathematics 252 (or 203), 355 and 553 (or 550A).* (4 units)

565. Mathematical Statistics

Likelihood ratio, estimators, distributions of estimators, theory of hypothesis testing, linear statistical models. May not be taken for credit by students who have received credit for Mathematics 445. *Prerequisite: Mathematics 465 (or 340).* (4 units)

573. Mathematical Methods of Physics III

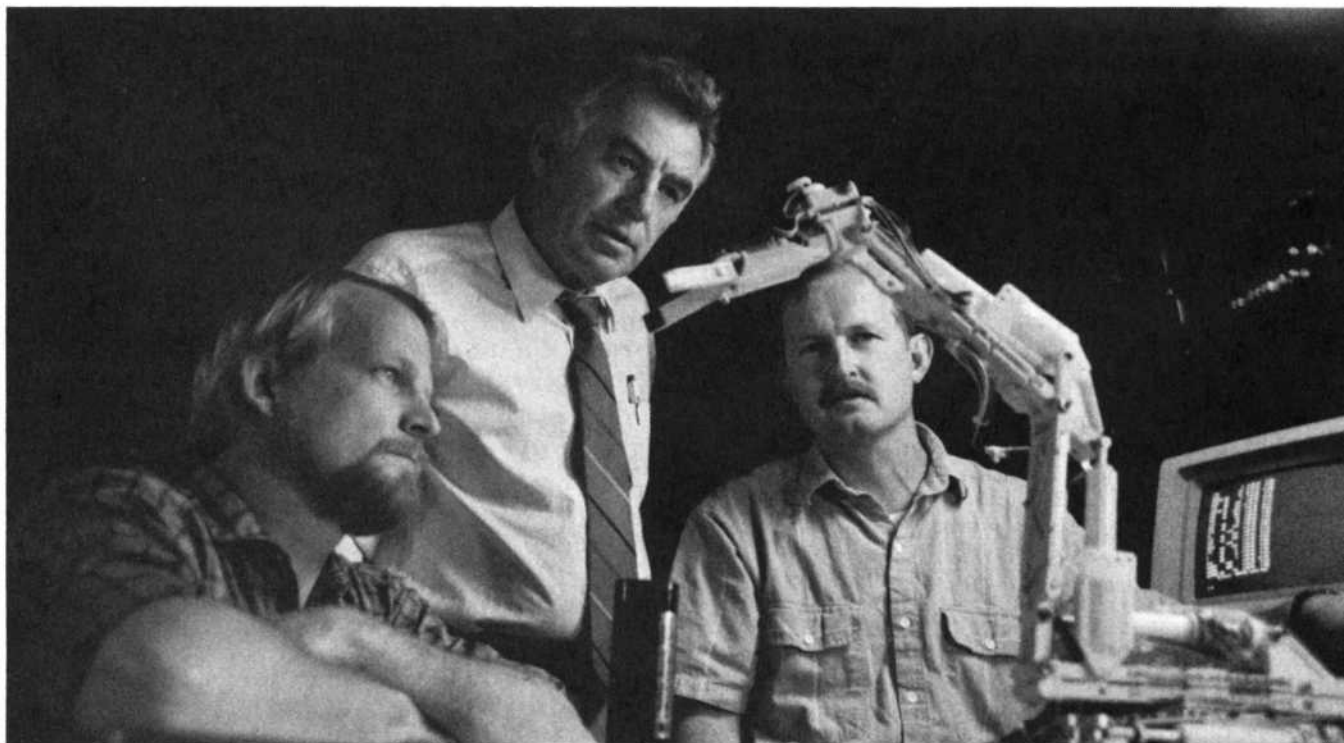
A continuation of Mathematics 473 or Physics 473 with emphasis on advanced topics including calculus of variations, tensor analysis, and elliptic functions. Additional topics chosen from functions of a complex variable, integral transforms and probability. (Also offered as Physics 573. Students may not receive credit for both.) *Prerequisites: Mathematics 331, Mathematics 473 (or 425) or Physics 473 or (425), and at least one 300-level Physics course.* (4 units)

576. Introduction to Mathematical Models

Topics from linear and probabilistic models, computer simulation, difference and differential equation models. May not be taken for credit by students who have received credit for Mathematics 341. *Prerequisites: Computer Science 201, Mathematics 331 and 465 (or 340).* (4 units)

595. Independent Study

An independent study course for senior mathematics majors. *Prerequisites: Mathematics 331 and 553 (or 550A), a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 4 units)



MILITARY SCIENCE PROGRAM (ARMY ROTC)

Military Science Office

Student Services Building, Room 124
880-5533

Military Science Program

Certificate Program

Military Science

The military science program is designed to provide an on-campus program for qualified students in all academic majors who desire to serve as an Army officer on active duty or in a local Army Reserve or Guard unit. While students may participate in either undergraduate or graduate studies, the program requires at least two years to complete.

Students who have completed at least basic training in any of the armed services may be eligible to enter the advanced course directly. Other students must complete three to six of the courses in the basic course of study or complete a six-week summer camp prior to entering the advanced course.

ROTC students are required to participate in leadership laboratories off-campus during one weekend each month.

Scholarships are available on a competitive basis. All ROTC students receive \$100 per month during the final two years of the program.

MILITARY SCIENCE PROGRAM

Program requirements (36 units):

Option I (Four Year Program)

Basic Course of Study (12 units)

1. One class per quarter for two academic years and includes twelve units as follows:

- A. MilS 120. Introduction to Military Science (2)
- B. MilS 146D. Outing Skills Activities: Orienteering (2)
- C. MilS 146E. Outing Skills Activities: Survival Skills (2)
- D. MilS 253. Psychology of Leadership and Management (2)
- E. MilS 369B. Military Sociology: American Military Sociology (2)

- F. Two units from the following:

- MilS 325B. American Military Experience: 1919-1942 (2)
- MilS 325C. American Military Experience: 1942-Present (2)

Advanced Course of Study (12 units)

Twelve units as follows:

- MilS 351. Small Unit Operations I (2)
- MilS 352. Small Unit Operations II (2)
- MilS 353. Advanced Military Leadership and Management (2)
- MilS 451. Military Law (2)
- MilS 452. Contemporary Military Policy (2)
- MilS 453. Senior Leadership Seminar (2)

Leadership Laboratory (12 units)

Students must be enrolled in the following each quarter they are enrolled in the ROTC Program:

- MilS 100. Leadership Laboratory (1) for a total of (12)

NOTE: In addition, a six-week advanced camp is required between the final two years of study.

In addition to the ROTC curriculum, cadets must complete one of each of the following type courses in order to ensure they have an understanding of skills, values, and knowledge beyond the military skills taught by the Military Science staff and the ROTC curriculum. These classes do not substitute for any military science classes and are in addition to the required classes for ROTC cadets.

Additional Requirements (20 units)

1. Computer Literacy

Four units chosen from:

- A. CSci 121. Computer Technology and People (2)
- and
- CSci 123. Using Computer Software (2)
- B. CSci 121. Computer Technology and People (2)
- and
- CSci 125. Programming in BASIC (2)
- C. CSci 298. Application Software Topics (total of 4)
 - A. DBASE III+ (2)
 - B. CROSSTALK (2)
 - C. LOTUS (2)
- D. Info 220. Fundamentals of Business Data Processing (4 units)

2. Quantitative Skills

Four units chosen from:

- MSci 210. Applied Business Statistics (4)
- Math 110. College Algebra (4)
- Math 120. Pre-Calculus Mathematics (4)
- Psyc 210. Psychological Statistics (5)
- SSci 215. Statistics for the Social Sciences (4)

3. Management

Four units chosen from:

- Mgmt 302. Management and Organizational Behavior (4)
 Psyc 302. Management and Organizational Behavior (4)

4. National Security Studies

Four units chosen from:

- Hist 421. Economic History of the United States (4)
 Hist 503. Europe in the Nuclear Age (4)
 Hist 556. Foreign Relations of the United States (4)
 NSci 486. Science, Technology and Warfare (4)
 PSci 325. American Foreign Policy (4)
 PSci 400. International Politics (4)
 PSci 484. National Security Policy (4)

5. Written Communications Skills

Four units chosen from:

- Educ 495. Expository Writing for Education (4)
 Eng 495. Expository Writing (4)
 Hum 495. Expository Writing for the Humanities (4)
 Mgmt 495. Expository Writing for Administration (4)
 NSci 495. Expository writing for the Natural Sciences (4)
 SSci 495. Expository Writing for the Social Sciences (4)

Other classes may be substituted for those listed in each category upon approval of the Military Science staff.

NOTE: Some of these requirements are fulfilled by General Education classes.

(56 Total Units)

Option II (Two Year Program)*Basic Course of Study (20 units)*

1. MilS 260. ROTC Basic Camp (2)
 PLUS
 1. MilS 351. Small Unit Operations I (2)
 2. MilS 352. Small Unit Operations II (2)
 3. MilS 353. Advanced Military Leadership and Management (2)
 4. MilS 451. Military Law (2)
 5. MilS 452. Contemporary Military Policy (2)
 6. MilS 453. Senior Leadership Seminar (2)
 PLUS

Leadership Laboratory (6 units)

Students must be enrolled in the following each quarter they are enrolled in the ROTC program.

- MilS 100. Leadership Laboratory (1) for a total of (6)

NOTE: In addition, a six week advanced camp is required between the final two years of study.

In addition to the ROTC Curriculum, cadets must complete one of each of the following type courses in order to ensure they have an understanding of skills, values, and knowledge beyond the military skills taught by the military science staff and the ROTC curriculum. These classes do not substitute for any military science classes and are in addition to the required classes for ROTC cadets.

Additional Requirements (28 units)

1. Computer Literacy

Four units chosen from:

- A. CSci 121. Computer Technology and People (2)
 and
 CSci 123. Using Computer Software (2)
 B. CSci 121. Computer Technology and People (2)
 and
 CSci 125. Programming in BASIC (2)
 C. CSci 298. Application Software Topics (total of 4)
 A. DBASE III+ (2)
 B. CROSSTALK (2)
 C. LOTUS (2)
 D. Info 220. Fundamentals of Business Data Processing (4)

2. Human Behavior

Four units chosen from:

- Anth 100. Introduction to Anthropology: Human Evolution (4)
 Anth 102. Introduction to Anthropology: Culture and Society (4)
 Psyc 115. Personal and Social Adjustment (2)
 Soc 100. The Study of Society (4)
 Soc 312. Contemporary Sociological Theory (4)
 Soc 369. A. Military Sociology: Comparative Military Sociology (2)
 or
 B. Military Sociology: American Military Sociology (2)

3. Management

Four units chosen from:

- Mgmt 302. Management and Organizational Behavior (4)
 Psyc 302. Management and Organizational Behavior (4)

4. Military History

Four units chosen from:

- Hist 325. American Military Experience
 B. 1919–1942 (2)
 and
 C. 1942–Present (2)
 Hist 603. Seminar in Modern Military History (4)

5. National Security Studies

Four units chosen from:

- Hist 421. Economic History of the United States (4)

- Hist 503. Europe in the Nuclear Age (4)
 Hist 556. Foreign Relations of the United States (4)
 NSci 486. Science, Technology and Warfare (4)
 PSci 325. American Foreign Policy (4)
 PSci 400. International Politics (4)
 PSci 484. National Security Policy (4)
6. Quantitative Skills
Four units chosen from:
 MSci 210. Applied Business Statistics (4)
 Math 110. College Algebra (4)
 Math 120. Pre-Calculus Mathematics (4)
 Psyc 210. Psychological Statistics (5)
 SSci 215. Statistics for the Social Sciences (4)
7. Written Communications Skills
Four units chosen from:
 Educ 495. Expository Writing for Education (4)
 Eng 495. Expository Writing (4)
 Hum 495. Expository Writing for the Humanities (4)
 Mgmt 495. Expository Writing for Administration (4)
 NSci 495. Expository Writing for the Natural Sciences (4)
 SSci 495. Expository Writing for the Social Sciences (4)

Other classes may be substituted for those listed in each category upon approval of the Military Science staff.

NOTE: Some of these requirements are fulfilled by general education classes.
 (48 Total Units)

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Military Science

Certificate Requirements (24 units)

1. Hist 325A. American Military Experience: 1860–1918 (2)
 or
 MilS 325A. American Military Experience: 1860–1918 (2)
2. Hist 325B. American Military Experience: 1919–1942 (2)
 or
 MilS 325B. American Military Experience: 1919–1942 (2)
3. Hist 325C. American Military Experience: 1942–Present (2)
 or
 MilS 325C. American Military Experience: 1942–Present (2)
4. Mgmt 302. Management and Organizational Behavior (4)
 or
 Psyc 302. Management and Organizational Behavior (4)
5. MilS 369A. Military Sociology: Comparative Military Sociology (2)
 or
 Soc 369A. Military Sociology: Comparative Military Sociology (2)
6. MilS 369B. Military Sociology: American Military Sociology (2)
 or
 Soc 369B. Military Sociology: American Military Sociology (2)
7. PSci 484. National Security Policy (4)
8. *Six units chosen from:*
 PE 146A. Outing Skills Activities: Backpacking (2)
 PE 146B. Outing Skills Activities: Camping (2)
 PE 146C. Outing Skills Activities: Mountaineering (2)
 PE 146D. Outing Skills Activities: Orienteering (2)
 or
 MilS 146D. Outing Skills Activities: Orienteering (2)
 PE 146E. Outing Skills Activities: Survival Skills (2)
 or
 MilS 146E. Outing Skills Activities: Survival Skills (2)

COURSE OFFERINGS IN MILITARY SCIENCE (MILS)

Lower Division

100. Leadership Laboratory

Practicum in those skills taught in the classroom during other Military Science classes in the quarter. To include Small Unit Operations, such as patrolling, air mobile operations, rappelling and weapons qualification. Some training is conducted on weekends. This course is only open to enrolled Army ROTC cadets. The course must be taken each quarter the student is enrolled in the Military Science program. (1 unit)

240 / Military Science Program (Army ROTC)

120. Introduction to Military Science

Introduction to the role of the officer and non-commissioned officer, organization of the total army, customs and traditions of the army, leadership, organization of the Department of Defense, and Soviet Military organization. (2 units)

146. Outing Skills Activities

Introduction and practice to basic skills, equipment, and safety techniques common to the spectrum of outdoor/wilderness activities.

D. Orienteering (Also offered as Physical Education 146D. Students may not receive credit for both.) (2 units)

E. Survival Skills (Also offered as Physical Education 146E. Students may not receive credit for both.) (2 units)

253. Psychology of Leadership and Management

Psychological theories, models and concepts as applied to the practice of leadership and management. (2 units)

260. ROTC Basic Camp

ROTC Basic Camp is a six week course at FT Knox, KY. The basic camp offers students with no prior military training, or ROTC classes, the chance to enter the ROTC advanced program, if the student has two or more years of undergraduate or graduate study remaining. It is comparable to the first two years of the ROTC program.

Prerequisite: consent of military science department advisor. (2 units)

Upper Division

325. American Military Experience

American military development from the Civil War to the present day.

A. 1860–1918 (Also offered as History 325A. Students may not receive credit for both.) (2 units)

B. 1919–1942 (Also offered as History 325B. Students may not receive credit for both.) (2 units)

C. 1942–Present (Also offered as History 325C. Students may not receive credit for both.) (2 units)

351. Small Unit Operations I

Current tactical doctrine as applied to small unit operations. *Prerequisite: consent of instructor.* (2 units)

352. Small Unit Operations II

Continuation of current tactical doctrine as applied to small unit operations, with special attention to the leader's role. *Prerequisite: Military Science 351.* (2 units)

353. Advanced Military Leadership and Management

Leadership skills required of an ROTC cadet at advanced camp and as a junior officer in the armed forces.

Prerequisite: Military Science 352. (2 units)

369. Military Sociology

Interrelationships between the civilian and military sector.

A. Comparative Military Sociology (Also offered as Sociology 369A. Students may not receive credit for both.) (2 units)

B. American Military Sociology (Also offered as Sociology 369B. Students may not receive credit for both.) (2 units)

451. Military Law

Military justice system, including a history of military law, philosophy and structure of the military justice system, courts-martial and alternatives to courts-martial.

Prerequisite: consent of instructor. (2 units)

452. Contemporary Military Policy

Contemporary military policy and related subjects of topical military interest, including personal ethics, relevant to the training of junior-level officers.

Prerequisite: consent of instructor. (2 units)

453. Senior Leadership Seminar

Leadership and management problems encountered in a company-sized unit, both in garrison and in the field, with emphasis on role of the junior officer. *Prerequisite: consent of instructor.* (2 units)

MUSIC

Department of Music

*Creative Arts Building, Room 175
880-5859*

Bachelor of Arts

Music

- Option I: Performance
- Option II: Music Education
- Option III: Commercial Music

Teaching Credential Program

Music

Minor

Music

The contemporary musician has a potential access to more kinds of music than ever before in history. The music curriculum—with courses in electronic music, performance, world music, historical studies, music education and integrated theory—reflects that diversity in that it offers programs for the student who wishes to enrich his or her education, become a professional musician, pursue an advanced degree in music or enter the teaching profession.

B.A. IN MUSIC

Requirements (96 units)

Requirements for the B.A. in Music:

Proficiency in music equal to that of Music 100. Basic Musicianship or equivalent.

1. *Twenty-nine units in music theory as follows:*
 - Mus 111. Theory I (5)
 - Mus 112. Theory II (5)
 - Mus 313. Theory III (5)
 - Mus 314. Theory IV (5)
 - Mus 315. Theory V (5)
 - Mus 542. Studies in Musical Organization (4)
2. *Twelve units in music history as follows:*
 - Mus 304. History of Music I (4)
 - Mus 305. History of Music II (4)
 - Mus 306. History of Music III (4)
3. *Three units in advanced applied music chosen from:*
 - Mus 440. Advanced Voice (1) for a total of (3)
 - Mus 441. Advanced Keyboard Instrument (1) for a total of (3)
 - Mus 442. Advanced String Instrument (1) for a total of (3)
 - Mus 443. Advanced Wind Instrument (1) for a total of (3)

- Mus 444. Advanced Brass Instrument (1) for a total of (3)
- Mus 445. Advanced Percussion Instrument (1) for a total of (3)
- Mus 446. Advanced Composition (1) for a total of (3)
- Mus 447. Advanced Synthesizer (1) for a total of (3)

4. *Two units in conducting as follows:*
 - Mus 210. Conducting (2)
5. *Piano proficiency must be demonstrated by completing one of the following:*
 - A. Mus 222. Class Piano III (With a grade of "B" or better) (1)
 - B. Successful completion of the piano proficiency examination administered by the department.
6. *Concert attendance:*
 - A. Six quarters of Mus 998. Concert Attendance; at least eight Music Department concerts, recitals and related programs must be attended per quarter.
7. *Twelve units in a major ensemble chosen from:* (Participation in one of the major performance organizations most appropriate to the student's applied emphasis is required each quarter in residence)
 - A. Mus 380. Chamber Orchestra (1)
 - B. Mus 381. Symphonic Band (1)
 - C. Mus 385. Concert Choir (1)
 - D. Mus 391. Jazz Ensemble (1) (option III only)

Note: Units accumulated while satisfying these requirements are not applicable to the major.

8. *Thirty-four units chosen from Option I, II or III below:*

Option I: Performance

Admission to this option requires an audition and the recommendation of the music faculty.

- A. Mus 208. Vocal Music Literature (1)
- B. Mus 209. Instrumental Music Literature (1)
- C. Mus 301. Choral Conducting (2)
- D. Mus 303. Instrumental Conducting (2)
- E. Mus 400. Studies in Composers (4)
 - or
 - Mus 402. Studies in Genres (4)
- F. Mus 416. Computer and Electronic Music (4)
- G. Mus 426. Studies in Music History (4)
- H. *Twenty units of course work in music chosen from 300-, 400- or 500-level courses.*
 - I. Mus 995. Junior Recital (0)
 - J. Mus 996. Senior Recital (0)

Option II: Music Education

- A. Mus 201. Class Strings (1) for a total of (2)

- B. Mus 202. Class Woodwinds (1) for a total of (2)
 C. Mus 203. Class Brass (1) for a total of (2)
 D. Mus 204. Class Percussion (1) for a total of (2)
 E. Mus 205. Class Guitar (1)
 F. Mus 206. Class Voice (1)
 G. Mus 208. Vocal Music Literature (1)
 H. Mus 209. Instrumental Music Literature (1)
 I. Mus 301. Choral Conducting (2)
 J. Mus 303. Instrumental Conducting (2)
 K. Mus 350. Music of Other Cultures (4)
 L. *Four units chosen from:*
 Mus 400. Studies in Composers (4)
 Mus 402. Studies in Genres (4)
 Mus 426. Studies in Music History (4)
 M. Mus 406. Orchestration (2)
 N. Mus 408. Arranging (2)
 O. Mus 410. Music in the Elementary Schools (2)
 P. Mus 411. Teaching Music in Secondary Schools (2)
 Q. Mus 412. Marching Band Techniques (2)
 R. Mus 535. Computer Studies for Music Teachers (4)
 S. Mus 996. Senior Recital (0)

Option III: Commercial Music

- A. Mus 402A. Studies in Genres: Jazz (4)
 B. Mus 402E. Studies in Genres: Literature of Popular Music (4)
 C. Mus 406. Orchestration (2)
 D. Mus 408. Arranging (2)
 E. Mus 414. Commercial Arranging (2)
 F. Mus 416. Computer and Electronic Music (4)
 G. Mus 426E. Studies in Music History: 20th Century Music (4)
 H. Mus 427. Studio Recording Techniques (4)
 I. Mus 428. Synthesizers (4)
 J. Mus 430. Improvisation I (2)
 K. Mus 432. Improvisation II (2)
 L. Mus 434. Improvisation III (2)
 M. Mus 438. The Music Industry (2)
 N. Mus 996. Senior Recital (0)

TEACHING CREDENTIAL PROGRAM

Students wishing to be recommended for the single subject teaching credential in music must complete the core requirements and Option II of the major in music, as well as certain prerequisites to the teacher education program. For information about the professional education component of the credential program, admission to the teacher education program and specific requirements for the

single subject waiver program see Page 147 of this catalog, or contact the School of Education Credentials Office.

MINOR IN MUSIC

Requirements (24 units)

Requirements for a minor in Music:

1. Mus 100. Basic Musicianship (5)
2. Mus 180. Studies in Music (4)
3. Mus 208. Vocal Music Literature (1)
4. Mus 209. Instrumental Music Literature (1)
5. Mus 220. Class Piano I (1)
6. *Four units chosen from:*
 Mus 350. Music of Other Cultures (4)
 Mus 351. Latin American Music (4)
 Mus 352. Afro-American Music (4)
 Mus 360. Music in the United States (4)
7. *Eight units in music courses, at least four units of which must be in upper-division courses.*

HONORS IN PERFORMANCE

Honors in Performance is a continuous six-quarter program designed specifically for upper-division students who show particular distinction as performers and who demonstrate exceptional promise for future growth.

Students admitted to the program will work with their applied music instructors to develop an approved program of study which will be reviewed each quarter by the faculty. Honors students will present a public junior and senior recital.

Upon completion of the program, Honors in Performance will be noted on the student's transcript and successful candidates will be publically recognized in a special honors concert.

The following criteria and procedures have been established:

1. Candidates will be accepted into the program upon recommendation of the studio instructor and the approval of the music faculty;
2. Entering students must show evidence of previous training, experience and quality of work;
3. A long-range program of instruction will be arranged between the student and the instructor. This program, taking into consideration the student's present capability and future potential, will be designed to include literature necessary for continued growth, as well as including works considered necessary to musical literacy. Student progress in the program will be evaluated each quarter by the department;
4. Honors candidates are expected to perform in public with reasonable regularity;

5. Candidates who have successfully completed five quarters in the program will then register for Music 994. Honors in Performance in their sixth quarter;
6. During their senior year honors students will register for Music 997. Honors Recital in lieu of Music 996. Senior Recital.

The department has a number of performance groups open to all students. The nature of these groups makes it essential that students register for a minimum of two or more successive quarters in any one ensemble.

COURSE OFFERINGS IN MUSIC (Mus)

THEORY

The integrated music theory courses are the core of a program which seeks to develop in the student ability to cope with any aural experience. The courses deal with the materials of music and how they combine to create musical structures, analysis of representative works and continued development of the musical ear and keyboard facility. Designed primarily for the music major and the liberal arts student with a serious interest in music.

100. Basic Musicianship

Rudiments of music: pitch, rhythm, scales, melody, sightsinging, dictation and introductory keyboard activity. Credits may not be counted toward fulfilling the requirements of the music major. Four hours lecture and two hours laboratory. (5 units)

111. Theory I

Basic materials of music and how they combine to create musical structures. Analysis of representative works is combined with creative work in counterpoint and harmony, together with sightsinging, ear training and keyboard harmony. Three hours lecture and six hours laboratory. *Prerequisite: Music 100 or equivalent or placement examination.* (5 units)

112. Theory II

Continuation of Music 111. Three hours lecture and six hours laboratory. *Prerequisite: Music 111 or equivalent or consent of instructor.* (5 units)

313. Theory III

Melody, harmony and texture as they relate to musical structure; extension of tonality and its eventual evolution into 20th-century practice; analysis of representative compositions; continuation of sightsinging, ear and keyboard training. Three hours lecture and six hours laboratory. *Prerequisite: Music 112 or equivalent, or consent of instructor.* (5 units)

314. Theory IV

Continuation of Music 313. Three hours lecture and six hours laboratory. *Prerequisite: Music 313 or equivalent or consent of instructor.* (5 units)

315. Theory V

Continuation of Music 314. Three hours lecture and six hours laboratory. *Prerequisite: Music 314 or equivalent or consent of instructor.* (5 units)

542. Studies in Musical Organization

Intensive study of aspects of musical organization: tonal, melodic and rhythmic. *Prerequisite: satisfactory completion of Music 315 or equivalent.* (4 units)

HISTORY AND LITERATURE

These courses are concerned with musical ideas and styles, as well as social and aesthetic factors influencing sounds composers ultimately preferred and organized.

180. Studies in Music

Exploration of the elements of music and the nature of meaning and musical style, with emphasis on listening and analysis. (4 units)

208. Vocal Music Literature

A survey of major works of solo and ensemble vocal literature. (1 unit)

209. Instrumental Music Literature

A survey of major works of solo and ensemble instrumental literature. (1 unit)

225. Music in the Theatre

A survey of music as it is allied with drama, dance and film. (4 units)

235. Popular Music Literature

A survey of the contributions of operetta, show-tune styles, gospel music, the blues, "standards" of the 30's and 40's, folk and country music, rhythm-and-blues, early rock-and-roll, and the more contemporary and progressive styles of rock, pop and new wave music to twentieth century American popular culture. (4 units)

304. History of Music I

Development of Western music from antiquity through the Renaissance, with emphasis on analysis, listening and individual study. *Prerequisite: Music 112 or consent of instructor.* (4 units)

305. History of Music II

Continuation of Music 304. Baroque to the late nineteenth century. *Prerequisite: Music 112 or consent of instructor.* (4 units)

306. History of Music III

Continuation of Music 305. Late Romantic to the present. *Prerequisite: Music 112 or consent of instructor.* (4 units)

400. Studies in Composers

Intensive study into works of a particular composer. Content will vary. May be repeated for credit as topics change. (4 units)

402. Studies in Genres

Intensive study into a particular genre or form, such as symphony, concerto, oratorio, opera. Content will vary. May be repeated for credit as topics change. (4 units)

406. Orchestration

Instrumental literature and orchestration, including study of the instruments of the orchestra and writing for instrumental groups. *Prerequisite: Music 112 or consent of instructor.* (2 units)

408. Arranging

Continuation of Music 406. Techniques of arranging for instrumental and vocal groups. *Prerequisite: Music 406 or consent of instructor.* (2 units)

426. Studies in Music History

Intensive study in selected style periods of music. May be repeated for credit as topics change. (4 units)

510. Special Topics in Music

Areas of special interest in the various fields of music selected for special presentation and development. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (4 units)

WORLD MUSIC

The following courses are concerned with music as it has developed and as it exists in various cultures of the world. Courses include background necessary to enable the student to understand the role of music in particular societies. Visiting faculty and guest musicians when possible. No prerequisites. Non-music majors encouraged to enroll.

350. Music of Other Cultures

Offered either as a survey of world music or as an intensive study into the music of a particular country or region. May be repeated for credit. (4 units)

351. Latin American Music

An overview of the history and current performance practices of classical, folk, and popular music of Latin America. (4 units)

352. Afro-American Music

Historical development of the Afro-American musical heritage. (4 units)

360. Music in the United States

Primarily concerned with music not directly related to Western European classical traditions: folk heritage and blues tradition. (4 units)

COMPOSITION

Working creatively with sound in a relatively unstructured situation. Experimentation is encouraged, based on individual abilities and preferences.

416. Computer and Electronic Music

History, development and practice of computer and electronic music. Non-majors are encouraged to enroll. (4 units)

COMMERCIAL MUSIC**414. Commercial Arranging**

Arranging and composition techniques for groups of varied instrumentation, incorporating concepts of jazz and commercial applications. *Prerequisites: Music 406 and 408 or consent of instructor.* (2 units)

417. Composition for Films and Television

Study of the aesthetic, psychological and practical techniques involved in composing music for films and television. *Prerequisite: Music 414 or consent of instructor.* (4 units)

427. Studio Recording Techniques

Introductory course dealing with microphone techniques, aspects of recording, multi-tracking, mix-down and editing. (4 units)

428. Analog and Digital Synthesis

Programming analog and digital synthesizers, drum machines, sequencers, micro-computers and other hardware. Opportunities for hands-on experience. *Prerequisite: Music 416 or consent of instructor.* (4 units)

430. Improvisation I

Spontaneous melodic, harmonic and rhythmic creation in the jazz idiom, as applied to the Blues and other basic chord progressions. Special emphasis on aural development. *Prerequisite: Music 112 or consent of instructor.* (2 units)

432. Improvisation II

Continuation of Music 430. Advanced improvisation as applicable to the jazz idiom through the implementation of harmonic alterations, chord substitutions and superimposed scales. *Prerequisite: Music 430 or consent of instructor.* (2 units)

434. Improvisation III

Continuation of Music 432. Improvisation as applicable to contemporary idioms other than jazz, such as rock, fusion, funk and Latin. *Prerequisite: Music 432 or consent of instructor.* (2 units)

438. The Music Industry

Study of the music industry and all of its facets relating to performing, arranging, composing, producing, publishing, copyrights, performing rights, societies and unions. (2 units)

INDEPENDENT STUDY**528. Special Projects**

Individual projects in orchestration, conducting and score reading, theory, history, composition, electronic music. May be repeated for credit. *Prerequisite: consent of instructor.* (Credit to be arranged: 1 to 4 units)

MUSIC EDUCATION

The following courses are designed for the prospective elementary and secondary school teacher.

201. Class Strings

Beginning study on violin, viola, cello and bass. May be repeated for credit. (1 unit)

202. Class Woodwinds

Beginning study on selected woodwinds. May be repeated for credit. (1 unit)

203. Class Brass

Beginning study on selected brass instruments. May be repeated for credit. (1 unit)

204. Class Percussion

Beginning study of percussion instruments. May be repeated for credit. (1 unit)

205. Class Guitar

Beginning guitar instruction designed for the prospective elementary school teacher. May be repeated for credit. (1 unit)

206. Class Voice

Fundamentals of singing, voice production and diction. (1 unit)

207. Diction for Singers

Proper diction and pronunciation used in English, Latin, Italian, French and German vocal literature. Examples drawn from standard vocal literature. (1 unit)

210. Conducting

Introduction to basic conducting techniques. (2 units)

220. Class Piano I

Basic keyboard techniques, including music reading, keyboard harmony and improvisation. Credit may not be counted toward fulfilling requirements of the music major. (1 unit)

221. Class Piano II

Basic keyboard techniques, including music reading, keyboard harmony and improvisation. Credit may not be counted toward fulfilling requirements of the music major. (1 unit)

222. Class Piano III

Basic keyboard techniques, including music reading, keyboard harmony and improvisation. Credit may not be counted toward fulfilling requirements of the music major. (1 unit)

301. Choral Conducting

Techniques and skills employed in the performance of choral literature. *Prerequisite: Music 210.* (2 units)

302. Music Theatre Production

(2 units)

303. Instrumental Conducting

Techniques and skills employed in the performance of instrumental literature. *Prerequisite: Music 210.* (2 units)

410. Music in the Elementary Schools

Materials and objectives in teaching music at the elementary school, including specialized instrumental and choral programs, singing and listening activities, and the use of simple instruments appropriate to child growth and development. Field work is included. *Prerequisite: Music 315 or consent of instructor.* (2 units)

411. Teaching Music in Secondary Schools

Materials and objectives for teaching music in the secondary schools, including specialized instrumental and choral programs. Field work is included. *Prerequisite: Music 315 or consent of instructor.* (2 units)

412. Marching Band Techniques

Marching fundamentals, charting for field shows, precision drills, parade techniques, materials and administration for marching band. *Prerequisite: Music 315 or consent of instructor.* (2 units)

519. Audio Production

Methods for creating appropriate musical/audio instructional materials using basic audio production equipment. Does not count toward the music major. (2 units)

531. Music in the Classroom

A correlated study of basic music theory, piano and vocal technique and classroom skills. Designed for the elementary teacher. Not open to majors in music. (4 units)

535. Computer Studies for Music Teachers

This course is intended for music teachers who wish to become familiar not only with hardware, music software, and basic computer music operations, but also with the specific uses of computer technology in the music classroom. *Prerequisite: Computer Science 127.* (4 units)

570. Creating Music

Social, classroom and electronic music created and performed by the student with conventional and imaginative sources of sound. *Prerequisite: Music 531 or equivalent.* (2 units)

APPLIED MUSIC

Music majors are required to take a minimum of three units of applied music at the upper-division level. Applied music units on the same instrument may not be taken concurrently. Permission to register in upper-division music courses can be granted only after a placement audition or by faculty recommendation. Applied music courses are available to undergraduate music majors only.

For students planning a career in music education, it is strongly recommended that, in addition to the three-unit requirement on a major instrument, three units of applied music study on a secondary instrument be included.

Students planning a career in performance are expected to study on their major instrument each quarter they are in residence. Students working in other areas may develop applied music programs consistent with their interest and goals.

The following music courses are available to undergraduate music majors only.

240. Beginning and Intermediate Voice

(1 unit)

241. Beginning and Intermediate Keyboard Instrument

- A. Piano (1 unit)
- B. Organ (1 unit)
- C. Harpsichord (1 unit)

242. Beginning and Intermediate String Instrument

- A. Violin (1 unit)
- B. Viola (1 unit)
- C. Cello (1 unit)
- D. Bass (1 unit)
- E. Guitar (1 unit)

243. Beginning and Intermediate Wind Instrument

- A. Flute (1 unit)
- B. Clarinet (1 unit)
- C. Oboe (1 unit)
- D. Bassoon (1 unit)
- E. Saxophone (1 unit)

244. Beginning and Intermediate Brass Instrument

- A. Trumpet (1 unit)
- B. Horn (1 unit)
- C. Trombone (1 unit)
- D. Tuba (1 unit)

245. Beginning and Intermediate Percussion Instrument

(1 unit)

246. Beginning and Intermediate Composition

Prerequisite: Music 112 or equivalent. (1 unit)

247. Beginning and Intermediate Synthesizer

Individual instruction on synthesizer and directed study in acoustics, psycho-acoustics and basic electronic principles. *Prerequisite: Music 221 or equivalent.* (1 unit)

440. Advanced Voice

Prerequisite: placement audition or consent of instructor. (1 unit)

441. Advanced Keyboard Instrument

Prerequisite: placement audition or consent of instructor.

- A. Piano (1 unit)
- B. Organ (1 unit)
- C. Harpsichord (1 unit)

442. Advanced String Instrument

Prerequisite: placement audition or consent of instructor.

- A. Violin (1 unit)
- B. Viola (1 unit)
- C. Cello (1 unit)
- D. Bass (1 unit)
- E. Guitar (1 unit)

443. Advanced Wind Instrument

Prerequisite: placement audition or consent of instructor.

- A. Flute (1 unit)
- B. Clarinet (1 unit)
- C. Oboe (1 unit)
- D. Bassoon (1 unit)
- E. Guitar (1 unit)

444. Advanced Brass Instrument

Prerequisite: placement audition or consent of instructor.

- A. Trumpet (1 unit)
- B. Horn (1 unit)
- C. Trombone (1 unit)
- D. Tuba (1 unit)

445. Advanced Percussion Instrument

Prerequisite: placement audition or consent of instructor. (1 unit)

446. Advanced Composition

Prerequisite: consent of department. (1 unit)

447. Advanced Synthesizer

Individual instruction on synthesizer and directed study in acoustics, psycho-acoustics and advanced electronic principles. *Prerequisites: Music 416, 418 or 428 and successful completion of Music 222 (minimum grade of "B") or equivalent. Placement audition or consent of instructor.* (1 unit)

PERFORMANCE ORGANIZATIONS

Participation in performance organizations may be repeated for credit, but may not be counted toward fulfilling requirements in the music major.

380. Chamber Orchestra

Performance of representative orchestral literature. (1 unit)

381. Symphonic Band

Performance of representative symphonic band literature. (1 unit)

382. Chamber Music

Performance of small ensemble music as determined by available instrumentation. *Prerequisite: consent of instructor.*

- A. Woodwinds (1 unit)
- C. Flute Choir (1 unit)
- D. Brass Quintet (1 unit)
- E. Saxophone (1 unit)
- F. Guitar Ensemble (1 unit)
- G. Clarinet Ensemble (1 unit)

385. Concert Choir

Performance of representative choral literature. (1 unit)

386. Chamber Singers

Prerequisite: consent of instructor. (1 unit)

387. Opera Workshop

Prerequisite: consent of instructor. (1 unit)

391. Jazz Ensemble

Performance of representative jazz ensemble literature. (1 unit)

395. University Chorale

Performance of major works for large choral ensemble. Will present at least one public performance per quarter. Open to all students without audition. This course will not satisfy the music major ensemble requirement. (1 unit)

396. Reverence Singers

Performance of vocal literature from the Afro-American tradition. (1 unit)

COMMUNITY SERVICE PROJECT**399. Community Service Project**

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of instructor.* (Credit to be arranged: 1 or 2 units)

NATURAL SCIENCES

School of Natural Sciences

*Biological Sciences Building, Room 130
880-5300*

The University offers courses of an interdisciplinary nature but no degree program under the natural sciences designation.

COURSE OFFERINGS IN NATURAL SCIENCES (NSci)

Lower Division

110. Health and Self Care

Health knowledge pertaining to the integrated person. Emphasis on self-care and knowledge and skills for evaluating and maintaining one's own health. (2 units)

Upper Division

300. Science and Technology

Relationship between science and technology - past, present and future - with case studies of the energy crisis, the technology of pollution control and recycling, automation, computers, technology assessment and other contemporary issues. (4 units)

310. The Environment and Human Survival

Consideration of the environment and environmental problems generated by the interactive effects of our biological heritage, the impact of science and technology, and our cultural attitudes. (4 units)

312. Scientific Contributions to the Development of Civilization

Scientific discoveries that have shaped human history, interrelationship between science and the humanities, impact of science and technology on civilization. Course also uses materials developed by J. Bronowski as "Ascent of Man." (4 units)

314. Life in the Cosmos

Life in the cosmos is discussed using the findings of astronomy, biology, chemistry and physics. Topics include the development of life and its environment, the search for life, interstellar communications and travel and the effects of contact. (4 units)

320. Energy

Present and future energy sources, including fossil fuels, hydroelectric power, nuclear energy and solar energy. Scientific principles and technological requirements for developing energy sources, economic factors and environmental problems associated with energy production and consumption. (4 units)

325. Perspectives on Gender

This interdisciplinary course uses scientific, humanistic and social science perspectives to foster an understanding of how gender roles in Western culture are established, maintained and changed. (Also offered as Humanities 325 and Social Sciences 325. Students may receive credit for only one of these courses.) (4 units)

351. Health and Human Ecology

A survey of the impact of physical, social and biological environments on health related issues such as poor housing, drug abuse, juvenile delinquency, radiation and pesticide exposure, food quality, noise, air and water resources and their relation to human settlements. (4 units)

395. Directed Study

Reading and library research in one of the natural sciences disciplines conducted under the direction of a faculty member. *Prerequisites: consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 4 units)

486. Science, Technology and Warfare

Historical examination of the effect of science and technology on warfare. (4 units)

495. Expository Writing for the Natural Sciences

Writing on topics related to the natural sciences, including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. No more than one of the expository writing courses (Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Students who have received a grade of no credit in any combination of the expository writing courses two or more times must meet with the 495 coordinator or designee to design a developmental writing plan as a condition for enrolling for a third quarter. All students must obtain junior status at the time of registration or their course request will be cancelled. Graded A, B, C/No Credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (4 units)

499. Methods and Materials in the Teaching of Natural Sciences Subjects

Individualized instruction in the methods and materials for the teaching of such natural sciences subjects as chemistry, life science, physical education and physics. This course may not be counted toward fulfilling requirements of courses in the above majors.

Prerequisites: Education 330 or 332, senior or graduate standing and admission to the single subject credential program or consent of School of Natural Sciences. (4 units)

595. Independent Study

Research in special topics including library studies, field and/or laboratory work in one of the Natural Sciences disciplines under the direction of a faculty member.

Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken. A maximum of five units in Natural Sciences 595 may be applied toward graduation. (Credit to be arranged: 1 to 5 units)

NURSING

Accredited by the National League for Nursing

Department of Nursing

Health Center, Room 112

880-5380

Bachelor of Science

Nursing

The Department of Nursing offers a four-year program leading to the Bachelor of Science degree with a major in nursing. The program is approved by the Board of Registered Nursing of California, accredited by the National League for Nursing, and meets requirements for public health nursing certification in California.

Courses are provided that include theory and clinical experience in caring for clients across the life span who are from diverse psychosocial and cultural backgrounds. A wide range of health care agencies is used for clinical experience. The intent of the program is to graduate generalists in nursing who are concerned with promoting optimum health in a variety of settings.

Students are advised to take required lower-division support courses during freshman and sophomore years.

Registered Nurse Applicants

Nurses possessing an associate degree or diploma in nursing and holding current California licensure as a registered nurse may apply for admission as transfer students at the junior level. Diploma graduates may enter the University as "natural sciences undeclared (nursing) majors" while completing lower-division requirements. Diploma graduates are required to pass each test in a battery of tests at the 50th percentile to receive college credit for lower-division nursing courses. Tests may not be repeated. Additional information about the tests is available from the Department of Nursing.

Registered nurses begin the nursing course sequence with Nursing 320. Registered nurses may petition to receive credit by examination for Nursing 320, 321, 322, and 323. Students must pass each test before taking the next test in the sequence. Tests may not be repeated.

Licensed Vocational Nurse Applicants

Vocational nurses licensed in California may enroll in selected courses to meet requirements for licensure as a registered nurse in California. The courses required of licensed vocational nurses are: Biology 220, 223 or 311, Nursing 320, 321, 322, 323, 400, 401, 402, and 403. These courses total 43 quarter units. Taking these courses enables Licensed Vocational Nurses to meet eligibility requirements to write the examination to become a

Registered Nurse in the State of California, but does not result in a degree.

Licensed Vocational Nurses may also choose to enroll in the baccalaureate program to receive a B.S. degree with a major in nursing. For the degree option, Licensed Vocational Nurses begin the nursing sequence with Nursing 202.

B.S. IN NURSING

Requirements (198 units)

Department Regulations

1. Students must attain grades of "C-" or better in all required courses in order to progress in the program. Nursing courses in which students earn less than a "C-" may be repeated for credit only once, and this repetition requires both departmental consent and the appropriate University petition.
2. Students on academic probation must remove grade-point deficiencies before progressing further in the nursing program.
3. Nursing students must carry malpractice insurance in the amount of not less than \$1,000,000 per occurrence and \$1,000,000 per year or more in order to be admitted to clinical courses.
4. Prior to the first clinical course and yearly thereafter, students must submit a medical report of a recent physical examination, including tuberculosis skin testing, indicating that they are able to engage in activities required to meet the expectations of the program. Exams are available through the Student Health Center.
5. Students must have access to insured transportation for their clinical experience.
6. Clothing required by the clinical facility appropriate for that setting must be provided by the students with appropriate identification by name and school. (Name pin is available for purchase at the University Bookstore.)
7. Advisement with a faculty member is required prior to registration each quarter.

Degree Requirements

Support Courses

One lower-division general education biology course (5)

Biol 220.	Principles of Microbiology (6)
Biol 223.	Human Physiology and Anatomy I (5)
Biol 224.	Human Physiology and Anatomy II (5)
Chem 205.	Fundamentals of Chemistry I: General Chemistry (5)
Chem 206.	Fundamentals of Chemistry II: Organic Chemistry (5)

- Chem 207. Fundamentals of Chemistry III: Biochemistry (5)
 Math 305. Statistics: Hypothesis Testing and Estimation (4)
 Psyc 100. Introduction to Psychology (4)
 Psyc 201. Developmental Psychology (4)

One integrative capstone course that meets the multicultural/gender requirement in the general education program. (4)

Sophomore Nursing Courses

- Nurs 200. Intermediate Care I: Beginning Nursing Process, Role and Skills (4)
 Nurs 201. Intermediate Care I: Laboratory (2)
 Nurs 202. Intermediate Care II: Childbearing Families and Children (4)
 Nurs 203. Intermediate Care II: Laboratory (2)
 Nurs 204. Intermediate Care III: Middlescent and Older Adults (4)
 Nurs 205. Intermediate Care III: Laboratory (2)

Junior Nursing Courses

- Nurs 320. Tertiary Care I: Advanced Nursing Process, Role and Skills (4)
 Nurs 321. Tertiary Care I: Laboratory (4)
 Nurs 322. Tertiary Care II: Continuation of Advanced Nursing Process, Role and Skills (4)
 Nurs 323. Tertiary Care II: Laboratory (4)
 Nurs 324. Ambulatory Care I: Young Individuals and Families (4)
 Nurs 325. Ambulatory Care I: Laboratory (4)
 Nurs 350. Issues and Trends in Nursing and Health Care (4)

Senior Nursing Courses

- Nurs 400. Ambulatory Care II: Middlescent and Older Individuals and Families (4)
 Nurs 401. Ambulatory Care II: Laboratory (4)
 Nurs 402. Leadership in Nursing I: Care of Groups of Clients (4)
 Nurs 403. Leadership in Nursing I: Laboratory (4)
 Nurs 404. Leadership in Nursing II: Nursing Management (4)
 Nurs 405. Leadership in Nursing II: Laboratory (4)
 Nurs 422. Nursing Research (4)
 Nurs 450. Theories of Nursing (4)

Students must also meet the University's general education requirements. Twenty-two units of the major are part of the general education requirements.

A total of 198 quarter units is required for the Bachelor of Science degree in Nursing.

DEPARTMENTAL HONORS

A graduating senior will be awarded departmental honors in nursing after meeting the following requirements:

1. Achieve a minimum GPA of 3.5 in all upper-division courses taken at the university or an overall GPA of at least 3.0;
2. Recommendation by the faculty of the Department of Nursing.

COURSE OFFERINGS IN NURSING (Nurs)

200. Intermediate Care I: Beginning Nursing Process, Role and Skills

Introduction to nursing process and nursing role, including basic cognitive, psychomotor, interpersonal, and assessment skills. *Prerequisites: admission to nursing major and consent of department; Biology 223 and 224. Corequisite: Nursing 201.* (4 units)

201. Intermediate Care I: Laboratory

Application of knowledge and skills from Nursing 200. Care of clients in various settings who need a moderate level of nursing care. *Prerequisites: admission to nursing major and consent of department. Corequisite: Nursing 200.* (2 units)

202. Intermediate Care II: Childbearing Families and Children

Theory and application of nursing process and nursing role with childbearing families and children of diverse psychosocial and cultural backgrounds. *Prerequisites: Nursing 200, Psychology 201, and consent of department. Corequisite: Nursing 203.* (4 units)

203. Intermediate Care II: Laboratory

Clinical experience in settings emphasizing care of childbearing families and children needing a moderate level of care. *Prerequisite: consent of department. Corequisite: Nursing 202.* (2 units)

204. Intermediate Care III: Middlescent and Older Adults

Theory and application of nursing process and nursing role with middlescent and older individuals and families of diverse psychosocial and cultural backgrounds. *Prerequisites: Nursing 202 and consent of department. Corequisite: Nursing 205.* (4 units)

205. Intermediate Care III: Laboratory

Clinical experience in settings emphasizing physical and emotional care of middlescent and older adults needing a moderate level of care. *Prerequisite: consent of department. Corequisite: Nursing 204.* (2 units)

302. Nursing History, Trends, Issues and Processes

An overview of the professional development of nursing education and scope of practice: emerging roles, competencies and processes. (Open to majors in all disciplines.) (4 units)

306. Current Influences in Health Care Delivery

Impact of legal, ethical, economic, political and technological forces on interprofessional relationships in the health care delivery system from the national, state and local points of view. (Open to majors in all disciplines.) (4 units)

314. Adult Health Assessment and Maintenance

Principles of interviewing and recording developmental history; of comprehensive physical examination; of evaluation of data and formulation of nursing diagnoses; and of disease management and health maintenance.

Prerequisites: admission to nursing program; Biology 311 and Nursing 302 and 380; consent of department chair prior to registration. Corequisite: Nursing 315. (4 units)

315. Adult Health Assessment and Maintenance: Laboratory

Clinical practice in skills of health assessment, planning health promotion and illness prevention of the adult over the life cycle by applying the nursing process.

Prerequisite: consent of department chair prior to registration. Corequisite: Nursing 314. (4 units)

320. Tertiary Care I: Advanced Nursing Process, Role and Skills

Principles of assessment and care of acutely ill individuals of various ages and psychosocial and cultural backgrounds. Pathophysiology as basis of nursing assessment and care. *Prerequisites: Chemistry 205, 206, 207, Nursing 204 and consent of department.* *Corequisite: Nursing 321.* (4 units)

321. Tertiary Care I: Laboratory

Application of knowledge and skills from Nursing 320. Care of clients in subacute and intensive care settings.

Prerequisite: consent of department. Corequisite: Nursing 320. (4 units)

322. Tertiary Care II: Continuation of Advanced Nursing Process, Role and Skills

Continuation of principles of assessment and care of acutely ill individuals of various ages and psychosocial and cultural backgrounds. Pathophysiology as basis of nursing assessment and care. *Prerequisites: Nursing 320 and consent of department. Corequisite: Nursing 323.* (4 units)

323. Tertiary Care II: Laboratory

Application of knowledge and skills from Nursing 322. Care of clients in subacute and intensive care settings.

Prerequisite: consent of department. Corequisite: Nursing 322. (4 units)

324. Ambulatory Care I: Young Individuals and Families

Principles of health promotion and chronic illness care with young individuals and families of diverse psychosocial and cultural backgrounds. *Prerequisites: Nursing 322 and consent of department. Corequisite: Nursing 325.* (4 units)

325. Ambulatory Care I: Laboratory

Application of knowledge and skills from Nursing 324. Clinical experience in community health agencies with young individuals and families. *Prerequisite: consent of department. Corequisite: Nursing 324.* (4 units)

350. Issues and Trends in Nursing and Health Care

Evolution of professional nursing. Trends in health care and nursing. Impact of ethical, legal, political, and economic forces upon health care and nursing.

Prerequisites: Nursing 203 and consent of department. (4 units)

354. Health Care of Women

Selected aspects of the health care of women over the life cycle with emphasis on a holistic philosophy.

Contribution of the nurse in aiding women to attain, regain and maintain a state of high level wellness.

Prerequisites: Nursing 314 and consent of department chair prior to registration. Corequisite: Nursing 355. (2 units)

355. Health Care of Women: Laboratory

Clinical practice in skills of health assessment, planning health promotion and illness prevention of women over the life cycle by applying the nursing process. Students participate in a variety of clinical settings. *Prerequisite: consent of department chair prior to registration.*

Corequisite: Nursing 354. (2 units)

356. Health Care of Children

Holistic health care from infancy through adolescence, considering home, school and other environments. Role of the nurse in aiding children to attain, regain and maintain a state of high level wellness. *Prerequisites: Nursing 314 and consent of department chair prior to registration. Corequisite: Nursing 357.* (2 units)

357. Health Care of Children: Laboratory

Clinical practice in skills of health assessment, planning health promotion and illness prevention of infants and children by applying the nursing process. Students participate in planned experiences in a variety of clinical and pre-school/school settings. *Prerequisite: consent of department chair prior to registration. Corequisite: Nursing 356.* (2 units)

358. Nursing Care of Children in the School Setting

Role of the nurse in the school setting. Focus is on health appraisal, intervention and teaching aimed at promoting responsibility among clients for their own health.

Included is the nurse's role as consultant to teachers and administrators regarding the health and safety aspects of the school environment. *Prerequisites: Nursing 314, 356 and consent of department chair prior to registration. Corequisite: Nursing 359A.* (2 units)

359A. Nursing Care of Children in the School Setting: Laboratory A

Clinical practice in the elementary and secondary schools in appraisal of health status, vision and hearing conservation, dental and nutritional status and prevention and control of communicable diseases. *Prerequisite: consent of department chair prior to registration. Corequisite: Nursing 358.* (2 units)

359B. Nursing Care of Children in the School Setting: Laboratory B

Clinical practice in the elementary and secondary schools dealing with management of common conditions and illnesses, emergency care and high-risk children. Detection and management (including prevention) of child abuse, drug abuse, teenage pregnancy and other

conditions which interfere with learning. *Prerequisite: consent of department chair prior to registration.* (2 units)

375. Cooperative Education

Application of nursing concepts and skills through supervised work in a hospital or other health care agency. Sixteen hours of supervised work and a two-hour group meeting are required each week. Open only to non-licensed nursing majors. May be repeated for credit each quarter. Four units may be applied toward the degree. Graded credit/no credit. *Prerequisites: Nursing 200, 201 and departmental approval of a standard application filed in advance of the quarter in which the course is to be taken.* (2 units)

380. Pathophysiological Concepts as Applied to Nursing Practice

Pathophysiological concepts as applied to nursing practice with an emphasis on common disorders as stressors causing maladaptation. *Prerequisites: admission to the nursing program, Biology 311 and Nursing 302.* (4 units)

396. Selected Topics in Nursing

Selected nursing topics with specific focus. May be repeated for credit as topics change. *Prerequisite: consent of department chair prior to registration.* (2 units)

399. Community Service Project

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of four units. No more than four units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisites: submission of a project proposal and consent of department chair prior to registration.* (Credit to be arranged: 1 or 2 units)

400. Ambulatory Care II: Middlescent and Older Individuals and Families

Principles of health promotion and chronic illness care with middlescent and older individuals and families of diverse psychosocial and cultural backgrounds. *Prerequisites: Nursing 324 and consent of department.* *Corequisite: Nursing 401.* (4 units)

401. Ambulatory Care II: Laboratory

Application of knowledge and skills from Nursing 400. Clinical experience in various ambulatory care settings with middlescent and older adults. *Prerequisite: consent of department.* *Corequisite: Nursing 400.* (4 units)

402. Leadership in Nursing I: Care of Groups of Clients

Leadership principles related to nursing care of a group of clients. *Prerequisites: Nursing 400 and consent of department.* *Corequisite: Nursing 403.* (4 units)

403. Leadership in Nursing I: Laboratory

Nursing care of a group of clients in various settings. *Prerequisite: consent of department.* *Corequisite: Nursing 402.* (4 units)

404. Leadership in Nursing II: Nursing Management

Principles related to the management of nursing care of a group of clients through other nursing personnel. *Prerequisites: Nursing 402 and consent of department.* *Corequisite: Nursing 405.* (4 units)

405. Leadership in Nursing II: Laboratory

Clinical experience in middle management in nursing in various settings. *Prerequisite: consent of department.* *Corequisite: Nursing 404.* (4 units)

410. Psychosocial Nursing

Mental health concepts emphasizing the nurse's role in the prevention of mental disorders; the promotion, restoration and maintenance of mental health in individuals, families and groups in the community. *Prerequisites: Nursing 306, 314 and consent of department chair prior to registration.* *Corequisite: Nursing 411A.* (4 units)

411. Psychosocial Nursing: Laboratory

Application of mental health concepts in the behavioral assessment of individuals and families; planning and evaluation of mental health nursing interventions in a variety of settings. *Prerequisite: consent of department chair prior to registration.*
A. *Corequisite: Nursing 410.* (2 units)
B. May be taken concurrently with Nursing 410 and 411A or must be taken in the next consecutive quarter following enrollment in 411A. (2 units)

422. Nursing Research

Introduction to the research process and analysis of studies relevant to nursing. *Prerequisites: Nursing 350, Mathematics 305 (or 350), and consent of department.* (4 units)

430. Community Health Nursing

Concepts related to maximizing the potential for health of individuals, families and groups within their environment. Emphasis on detection and prevention of disease, promotion of health in a variety of settings, including socio-cultural influences in the application of the nursing process. *Prerequisites: Health Science 451, Nursing 306, 314, 354, 356, and consent of department chair prior to registration.* *Corequisite: Nursing 431A.* (4 units)

431. Community Health Nursing: Laboratory

Application of nursing concepts in providing health care and health education to assist individuals, families and groups in a variety of settings; to prevent disease, promote health and maximize their potential capabilities. Development of skills in interdisciplinary and interagency collaboration and the participation in the evaluation and improvement of the health status of the community. *Prerequisite: consent of department chair prior to registration.*
A. *Corequisite: Nursing 430.* (2 units)
B. May be taken concurrently with Nursing 430 and 431A or must be taken in the next consecutive quarter following enrollment in 431A. (2 units)

450. Theories of Nursing

Introduction to various conceptual models of nursing. Implications of these models for nursing. *Prerequisites: Nursing 350 and consent of department.* (4 units)

454. Anatomical/Physiological Processes of Aging

Anatomical and physiological changes occurring in the aging person. *Prerequisites: Biology 222 or 223 and 224 and upper-division standing.* (4 units)

455. Chronic Diseases of the Aging Population

Clinical problems of the aging person including diagnostic and therapeutic aspects. *Prerequisites: Nursing 454 and upper-division standing.* (4 units)

456. Adaptation to Chronic Illness

Nurse's role in development and enhancement of health-seeking behaviors in response to physiological and psychosocial stressors associated with chronic illness. *Prerequisite: upper-division standing.* (4 units)

457. Health Services for the Non-Institutionalized Aging Person

Role of the nurse as case manager mobilizing and coordinating sick care, health maintenance and rehabilitation of the aged person in the home. *Prerequisite: Nursing 454.* (2 units)

472. Principles of Nursing Leadership

Principles of leadership related to organization and delivery of nursing care and patient advocacy in a variety of settings. Theories and methods of organizational change and their application to nursing. *Prerequisite: consent of department chair prior to registration. Corequisite: Nursing 473. Prerequisite or corequisite: Nursing 422, 430.* (4 units)

473. Principles of Nursing Leadership: Laboratory

Principles of organization, administration and leadership applied to the delivery of nursing care in acute and non-acute settings. Theories and practice in the implementation of change. *Prerequisite: consent of department chair prior to registration. Corequisite: Nursing 472.* (2 units)

500. Advanced Topics in Nursing

Selected advanced nursing topics with specific focus within relatively narrow content areas. May be repeated for credit as topics change. *Prerequisite: upper-division standing or consent of instructor.* (4 units)

580. Clinical Preceptorship in Primary Health Care

Intensive experience in performing the diagnostic and treatment procedures essential to the scope of practice of a California certified nurse practitioner including physical diagnosis, psychosocial assessment and management of health-illness needs in primary health care. *Prerequisite: completion of the theoretical portion of the Nurse Practitioner Certificate curriculum.*

A. (6 units)

B. (6 units)

C. (6 units)

595. Independent Study

Research conducted under the direction of a faculty member. A total of six units in Nursing 595 may be applied toward graduation. *Prerequisites: Nursing 422, senior standing, a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

PARALEGAL STUDIES

Department of Political Science

Faculty Office Building, Room 249
880-5548

Certificate Program

Paralegal Studies

The University offers a Certificate in Paralegal Studies. Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a subfield of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information. Information concerning the paralegal studies certificate can be obtained from the Coordinator of Paralegal Studies.

To provide an introduction to the legal language it is required that in the first quarter of the program students take:

Paralegal Studies 385. Legal Research and Writing

CERTIFICATE PROGRAM

Certificate in Paralegal Studies

Certificate Requirements (44 units)

1. PlSt 385. Legal Research and Writing (Must be completed in the first quarter of the program.) (4)
2. *Twenty-eight units chosen from:*
 - PlSt 370. Wills, Estates and Trusts (4)
 - PlSt 371. Contract Law (4)
 - PlSt 372. Tort Law (4)
 - PlSt 373. Property Law (4)
 - PlSt 376. Family Law and Community Property (4)
 - PlSt 377. Trial Practice (4)
 - PlSt 378. Corporate Law (4)
 - PlSt 380. Criminal Law (4)
 - PlSt 590. Seminar in Paralegal Studies (4)
3. *Twelve units chosen from:*
 - Acct 444. Professional Accounting Law (4)
 - CJus 359. Law and Society (4)
 - or
 - Soc 359. Law and Society (4)
 - Hist 540. Constitutional History of the United States (4)
 - Mgmt 330. Legal Environment of Business (4)

- Phil 466A. Philosophy of Law: The Concept of Law (4)
- Phil 466B. Philosophy of Law: Morality and the Law (4)
- Phil 466C. Philosophy of Law: Rights and the Law (4)
- PlSt 381. Sex Discrimination and the Law (4)
- PlSt 575. Internship in Paralegal Studies (4)
- PlSt 595. Independent Study (1-4) for a total of (4)
- PSci 328. Judicial Process (4)
- PSci 410. American Constitutional Law (4)
- PSci 411. The Bill of Rights (4)
- PSci 535. Seminar in Constitutional Law (4)

COURSE OFFERINGS IN PARALEGAL STUDIES (PISt)

Upper Division

370. Wills, Estates and Trusts

Study of law relating to the control and disposition of property inter vivos (between living persons) and after death, wills, intestate succession (descent and distribution), future interests and trusts, estates in land, principles of estate planning and administration of an estate. *Prerequisite: Paralegal Studies 385 or consent of instructor.* (4 units)

371. Contract Law

Study of law relating to contract formation, formalities, performance and breach. Effect on a contractual relationship of various types of subsequent conduct by the contracting parties and remedies available for breach. Introduction to the Commercial Code of California. *Prerequisite: Paralegal Studies 385 or consent of instructor.* (4 units)

372. Tort Law

Legal liability for wrongful interference with the person; tangible property, real and personal; intangible interests; and advantageous relations. *Prerequisite: Paralegal Studies 385 or consent of instructor.* (4 units)

373. Property Law

Basic principles of law relating to various types of property interests: real and personal, tangible and intangible, public and private; acquisition; bailment; fixtures; deeds; escrow, recording and search of public documents and security instruments in connection with real property. *Prerequisite: Paralegal Studies 385 or consent of instructor.* (4 units)

376. Family Law and Community Property

Formation and dissolution of the family unit: custody, support, property rights and obligations. *Prerequisite: Paralegal Studies 385 or consent of instructor.* (4 units)

377. Trial Practice

Studies of trials at common law and in equity, including examination, competency and privileges of witnesses, judicial notice, burden of proof and presumptions; tactics of litigation, discovery, fact investigation, jurisdiction,

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remedies, civil procedure and drafting of pleadings.

Prerequisite: Paralegal Studies 385 or consent of instructor. (4 units)

378. Corporate Law

Legal status of the corporate entity, corporate structure and distribution of powers and duties among

shareholders, directors and officers. *Prerequisite:*

Paralegal Studies 385 or consent of instructor. (4 units)

380. Criminal Law

Theory and practice of criminal law from a case study

approach. *Prerequisite: Paralegal Studies 385 or consent of instructor.* (4 units)

381. Sex Discrimination and the Law

Legal history and contemporary issues in questions of gender and the law. Emphasis on changing sex roles and the impact of those changes upon the law. (4 units)

385. Legal Research and Writing

Methods of legal research, problem analysis, and writing techniques. Emphasis on developing ability to write

concise case briefs, case syntheses and legal documents. (4 units)

575. Internship in Paralegal Studies

Supervised work and study in public and private legal

organizations. *Prerequisites: completion of Paralegal*

Studies 385 and 16 additional units of paralegal certificate course work and consent of paralegal studies coordinator. (4 units)

590. Seminar in Paralegal Studies

Selected current issues and topics in the paralegal field.

May be repeated for credit as topics change. *Prerequisite: Paralegal Studies 385.* (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 8 units in Paralegal Studies 595 may be applied

toward graduation. *Prerequisites: a minimum overall*

grade-point average of 3.0, Paralegal Studies 385,

consent of instructor and coordinator, approval of a

written proposal of a project submitted in advance of the

quarter in which the course is to be taken. (Credit to be

arranged: 1 to 4 units)

PHILOSOPHY

Department of Philosophy

*Pfau Library Building, Room 242
880-5869*

Bachelor of Arts

Philosophy

Minor

Philosophy

Certificate Program

Religious Studies

Philosophy is humanity's oldest intellectual discipline. Philosophy's concerns range from questions fundamental to human understanding such as the nature of man, knowledge, truth, being, existence, right, freedom and the good life; to attempts to clarify and understand problems such as the equitable distribution of society's goods, political violence, the right to privacy and governmental honesty.

Because at all levels philosophy aims at the construction of sound arguments and clear concepts, students develop high levels of skill in the analysis and organization of ideas. Acquisition of these basic intellectual skills is excellent preparation for further study and for entering a variety of career fields. Philosophy is a strongly recommended prelaw major and can provide solid background for careers in journalism, public service, government and politics among others. In addition, it is excellent preparation for graduate and professional study in a number of fields.

B.A. IN PHILOSOPHY

Requirements (52 units)

Requirements for the B.A. in Philosophy:

Upper-division requirements (52 units)

1. *History of Philosophy*
 - A. Phil 311. Ancient Philosophy (4)
 - B. Phil 313. History of Modern Philosophy Through the Nineteenth Century (4)
 - C. *Four units chosen from:*
 - Phil 315. Contemporary Philosophy (4)
 - Phil 316. Philosophy of Science (4)
 - Phil 484. Philosophy of Language (4)
2. *Symbolic Logic*
 - Phil 300. Symbolic Logic (4)

3. *Value Theory*

Four units chosen from:

- Phil 350. Ethics (4)
- Phil 361A. Social and Political Philosophy: Classical Political Theories (4)
- Phil 361B. Social and Political Philosophy: Themes in Social and Political Philosophy (4)

4. *Metaphysics/Epistemology*

Four units chosen from:

- Phil 380. Metaphysics (4)
- Phil 385. Theory of Knowledge (4)

5. *Intensive Study*

Four units chosen from:

- Phil 410. Philosophical Figures and Movements (4)
- Phil 490. Philosophical Topics (4)

6. Twenty-four units of electives, of which eight units may be lower-division, chosen from philosophy courses. Philosophy courses used to satisfy the Critical Thinking and Philosophy general education requirements will not count toward the major.

Note: *Graduate Study*

In order to meet entrance standards for most graduate departments of philosophy and to qualify for strong recommendations from this department, students planning to apply for graduate programs should also complete eight units of additional upper-division elective philosophy course work, plus a minimum of sixteen units, or equivalent proficiency, in one foreign language (preferably French, German, Latin, or Greek), with attainment of demonstrable reading skill.

MINOR IN PHILOSOPHY

Requirements (32 units)

Requirements for a minor in Philosophy:

Upper-division requirements (32 units)

1. *History of Philosophy*
 - A. Phil 311. Ancient Philosophy (4)
 - B. Phil 313. History of Modern Philosophy Through the Nineteenth Century (4)
 - C. *Four units chosen from:*
 - Phil 315. Contemporary Philosophy (4)
 - Phil 316. Philosophy of Science (4)
 - Phil 484. Philosophy of Language (4)
2. *Value Theory*

Four units chosen from:

 - Phil 350. Ethics (4)
 - Phil 361A. Social and Political Philosophy: Classical Political Theories (4)

- Phil 361B. Social and Political Philosophy: Themes in Social and Political Philosophy (4)
3. *Metaphysics/Epistemology*
Four units chosen from:
Phil 380. Metaphysics (4)
Phil 385. Theory of Knowledge (4)
4. Twelve units of electives, four units of which may be lower-division, chosen from philosophy courses. Philosophy courses used to satisfy the Critical Thinking and Philosophy general education requirements will not count toward the minor.

DEPARTMENTAL HONORS

The departmental honors program is individually designed to suit the interests of each student, who may choose one of two options:

1. Taking an examination on a book list which the student prepares under the supervision of a faculty member; or,
2. Writing an honors thesis.

Successful completion of the examination or the thesis results in the awarding of departmental honors. To qualify for the honors program a student must have an overall grade point average of 3.0, and a grade point average of 3.5 in philosophy courses. The student must also have taken at least five philosophy courses at California State University, San Bernardino, one of which may be lower-division, not counting courses satisfying the general education Critical Thinking requirement. Application for the honors program must be made in writing to the department three quarters before graduation.

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Religious Studies

Certificate Requirements (32 units)

- Anth 480. Magic, Religion and Science (4)
Eng 333. Myth and Epic (4)
Hist 380. History of World Religions (4)

- Phil 372. Philosophy of Religion (4)
Phil 373. World Religions (4)
Phil 375. Classics of Eastern Thought (4)
Phil 475. Mysticism and Philosophy (4)
Soc 380. Sociology of Religion (4)

COURSE OFFERINGS IN PHILOSOPHY (Phil)

Lower Division

105. Critical Thinking Through Argument Analysis

Analysis of various kinds of reasoning employed in everyday life and in more specialized contexts, to develop each student's skill in understanding and using carefully constructed arguments. Illustrations will include materials drawn from contemporary issues. (4 units)

190. Introduction to Philosophy

An introduction to philosophical thinking by means of reading, discussing and writing about selected philosophical works. Students are encouraged to develop their own philosophical views in a critical exchange with the views of the philosophers studied. *Prerequisite: English 101 or equivalent.* (4 units)

205. Critical Thinking Through Symbolic Logic

Introduction to logic and its application to everyday reasoning. Emphasis on formal methods and modern symbolic logic. Students may not receive credit for both Philosophy 105 and Philosophy 205. (4 units)

250. Values, Technology and Society

An introduction to the philosophical issues surrounding technology and its impact on human life. The course will focus on the moral implications of developments in such areas as medical technology, nuclear warfare and automation, as well as on our changing conceptions of human nature and progress. *Prerequisite: English 101 or equivalent.* (4 units)

270. Introductory Philosophy of Religion

Introduction to problems which arise from attempts to understand human religious experiences such as the relations between faith, belief and knowledge, and concepts such as revelation, mystical oneness, reincarnation and immortality. *Prerequisite: English 101 or equivalent.* (4 units)

275. Eastern Views of Life

Introduction to the ways in which Buddhism, Hinduism, Taoism and Confucianism view human life and reality. *Prerequisite: English 101 or equivalent.* (4 units)

280. Knowledge and Reality

Inquiry into philosophical presuppositions underlying common sense and scientific views of knowledge and reality. Possible topics include: Was the universe created? Is the world as it appears to us? Are humans merely complex machines or do they have souls? How do we know what we know? *Prerequisite: English 101 or equivalent.* (4 units)

Upper Division

300. Symbolic Logic

Introduction to symbolic logic. Propositional logic, first order quantification theory and various tests of validity for these systems. Some metatheory. May not be taken for credit by students who have received credit for Philosophy 314. *Prerequisite: one lower-division course in philosophy or consent of instructor.* (4 units)

306. Inductive Logic

Principles of reasoning underlying the scientific method. Topics include hypothesis formation and testing, foundations and philosophical interpretation of probability and decision theory. *Prerequisite: one lower-division course in philosophy.* (4 units)

311. Ancient Philosophy

Introduction to the origin of Western philosophy, as represented in the works of the Pre-Socratics, Plato, Aristotle, the Stoics, Epicureans, Sceptics and Mystics. May not be taken for credit by students who have received credit for Philosophy 301. *Prerequisite: one lower-division course in philosophy.* (4 units)

313. History of Modern Philosophy Through the Nineteenth Century

Major philosophical developments in Western philosophy from Descartes to Kant, focussing on the nature of knowledge and the foundations of scientific reasoning. May not be taken for credit by students who have received credit for Philosophy 305. *Prerequisite: one lower-division course in philosophy.* (4 units)

315. Contemporary Philosophy

Survey of major contributions to twentieth-century philosophy such as positivism, pragmatism, ordinary language analysis, current linguistic trends, existentialism and phenomenology. May not be taken for credit by students who have received credit for Philosophy 307. *Prerequisite: one lower-division course in philosophy.* (4 units)

316. Philosophy of Science

Foundations of science, including the nature of scientific methodology, explanation, concept formation, and the structure of theories, using case studies from the natural sciences and social sciences. *Prerequisite: one lower-division course in philosophy.* (4 units)

320. Philosophy of Education

Inquiry into the nature of education and its role in human life, and the role of individual and social values. Readings from classical and contemporary philosophers. *Prerequisite: one lower-division course in philosophy.* (4 units)

325. Philosophy and the Arts

Exploration of theories concerning the nature of the arts and their role in human life. May not be taken for credit by students who have received credit for Philosophy 370. *Prerequisite: one lower-division course in philosophy.* (4 units)

350. Ethics

The nature of the meaningful life and its relation to concepts of right and wrong explored through various moral theories. *Prerequisite: one lower-division course in philosophy.* (4 units)

355. Contemporary Ethical Issues

Consideration of moral problems intensified by the rapid pace of social, economic and technological changes: genetic engineering, euthanasia, "the new sexual ethics," abortion and the right to privacy. *Prerequisite: one lower-division course in philosophy.* (4 units)

361. Social and Political Philosophy

An examination of major perspectives on how societies should be organized. Study of central issues such as legitimacy of government, and rights versus obligations; or of major concepts such as justice, equality, rights, class, patriarchy and power. May not be taken for credit by students who have received credit for Philosophy 360. May be repeated for credit as topics change. *Prerequisite: one lower-division course in philosophy.*

A. Classical political theories (4 units)

B. Themes in social and political philosophy (4 units)

363. Philosophy of Human Nature

A study of theories of human nature and the factors motivating human behavior, with focus on such questions as whether human nature is changeable, the analysis of aggression, and the roles of reason, emotion and instinct. May not be taken for credit by students who have received credit for Philosophy 340. *Prerequisite: one lower-division course in philosophy.* (4 units)

364. Philosophy of Race and Gender

A critical survey of various theories about race and gender. Attention will be paid to the debate over racial and gender differences and the moral and political implications of these theories. (4 units)

367. Philosophy and Sexual Politics

Philosophical issues such as gender and patriarchy; the implications for women of theories of rights, justice, and equality; how race and class affect theories about women and whether morality and reason contain a male bias. May not be taken for credit by students who have received credit for Philosophy 357. *Prerequisite: one lower-division course in philosophy.* (4 units)

372. Philosophy of Religion

Problems concerned with the existence and attributes of God, or gods, the significance of religious experience and its varieties, and the rationality of faith. May not be taken for credit by students who have received credit for Philosophy 450. *Prerequisite: one lower-division course in philosophy.* (4 units)

373. World Religions

Study of the doctrines and practices of the world's major religions and the philosophic issues raised by their diversity. *Prerequisite: one lower-division course in philosophy.* (4 units)

375. Classics of Eastern Thought

Study of selected Eastern masterpieces such as the Bhagavad Gita, The Tao of Lao Tzu and the Dhammapada. May not be taken for credit by students who have received credit for Philosophy 452. *Prerequisite: one lower-division course in philosophy.* (4 units)

380. Metaphysics

The nature of existence, including topics such as free will and determinism, the mind-body problem and the nature of identity. *Prerequisite: one lower-division course in philosophy.* (4 units)

385. Theory of Knowledge

Problems concerning acquiring and justifying knowledge, including the roles of sense perception and reason, the distinction between knowledge and belief, the nature of evidence, and the concepts of truth and certainty.

Prerequisite: one lower-division course in philosophy. (4 units)

400. Philosophy of Logic

Philosophical issues raised by logic, such as whether there is a single correct logic, the justification of logical systems, and the relation between formal systems and reasoning in informal contexts. May not be taken for credit by students who have received credit for Philosophy 312. *Prerequisite: one lower-division course in philosophy.* (4 units)

410. Philosophical Figures and Movements

An intensive study of one or more philosophical figures. May be repeated for credit as topics change. *Prerequisite: one lower-division course in philosophy.* (4 units)

466. Philosophy of Law

A study of philosophical problems raised by the law, such as the nature and validity of the law, and concepts of justice; the relation between law and morality; and how rights are or ought to be reflected in the law. May not be taken for credit by students who have received credit for Philosophy 465. May be repeated for credit as topics change.

- A. The Concept of Law (4 units)
- B. Morality and the Law (4 units)
- C. Rights and the Law (4 units)

467. Power, Authority, Force and Violence

The philosophical and historical relations between might and right with focus on the role of power as a means of oppression. May not be taken for credit by students who have received credit for Philosophy 365. *Prerequisite: one lower-division course in philosophy.* (4 units)

475. Mysticism and Philosophy

Study of mystical experience and some problems it raises for philosophical analysis. *Prerequisite: one lower-division course in philosophy.* (4 units)

480. Philosophy of Mind

Various theories about the nature of the mind and the relation of the mind to the body and behavior. Focus will be on different approaches to psychology (behaviorism, functionalism, etc.) or on the consequences of theories of the mind for the question of whether computers can think. May be repeated for credit as topics change.

Prerequisite: one lower-division course in philosophy.

- A. Philosophical Psychology (4 units)
- B. Minds and Machines (4 units)

484. Philosophy of Language

Inquiry into the syntactic, semantic and pragmatic dimensions of language, focussing on different theories of these components, and the philosophical implications of these theories. May not be taken for credit by students who have received credit for Philosophy 330.

Prerequisite: one lower-division course in philosophy. (4 units)

490. Philosophical Topics

Study of a specially selected idea, problem or theory in philosophy. May be repeated for credit as topics change. *Prerequisite: one lower-division course in philosophy.* (4 units)

595. Independent Study

Intensive study of topics not offered in other existing philosophy courses. No more than 4 units of Philosophy 595 can apply towards the philosophy major without departmental approval. *Prerequisites: a minimum grade-point average of 3.0, consent of instructor and departmental approval of a project submitted on a standard application filed no later than the end of the first week of classes.* (Credit to be arranged: 2 to 4 units)

PHYSICAL EDUCATION

Department of Physical Education

Physical Education Building, Room 122
880-5349

Bachelor of Science

Physical Education

Teaching Credential Programs

Adapted Physical Education Specialist Credential
Single Subject

Master of Arts

Secondary Education—Physical Education

Option

(Degree requirements can be found on Page 346.)

Minor

Physical Education

Recreation

Certificate Programs

Coaching

Fitness Management

Recreation Leadership

The Department of Physical Education offers a curriculum leading to a bachelor of science with a major in physical education. In addition, a minor in physical education, a minor in recreation, an adapted physical education specialist credential and a single subject credential are offered.

The major in physical education is designed for the student interested in preparing to:

1. Become a physical education teacher;
2. Select a career in nonteaching fields related to physical education, such as commercial physical education, sports business and commercial leisure services;
3. Pursue graduate work in physical education.

Athletic Training Internship Program—Successful completion of course work and 1500 hours of athletic training experience under direct supervision of an NATA Certified Athletic Trainer makes student eligible to attempt the three-part National Athletic Trainers' Association examination leading to NATA certification. Students should take the following courses: Biology 223, 224, Health Science 120, Physical Education 280, 380, 480 and 481.

B.S. IN PHYSICAL EDUCATION

Requirements (79 units)

Requirements for the B.S. in Physical Education:

Lower-division requirements (40 units)

1. Biol 223. Human Physiology and Anatomy I (5)
2. Biol 224. Human Physiology and Anatomy II (5)
3. PE 210A. Topics in the Foundations of Physical Education: Introduction to Physical Education (2)
4. PE 210B. Topics in the Foundations of Physical Education: Introduction to Adapted Physical Education (2)
5. PE 254. Field Work in Physical Education or Recreation I (2)
6. PE 261C. Professional Activity Preparation in Individual and Dual Sports: Dance (2)
7. PE 261F. Professional Activity Preparation in Individual and Dual Sports: Gymnastics (2)
8. PE 261H. Professional Activity Preparation in Individual and Dual Sports: Swimming (2)
9. *Four units chosen from:*
 - PE 261A. Professional Activity Preparation in Individual and Dual Sports: Archery (2)
 - PE 261D. Professional Activity Preparation in Individual and Dual Sports: Fitness and Conditioning (2)
 - PE 261E. Professional Activity Preparation in Individual and Dual Sports: Golf (2)
 - PE 261K. Professional Activity Preparation in Individual and Dual Sports: Track and Field (2)
10. *Two units chosen from:*
 - PE 261B. Professional Activity Preparation in Individual and Dual Sports: Badminton (2)
 - PE 261G. Professional Activity Preparation in Individual and Dual Sports: Racquetball (2)
 - PE 261J. Professional Activity Preparation in Individual and Dual Sports: Tennis (2)
11. *Eight units chosen from:*
 - PE 263A. Professional Activity Preparation of Team Sports: Basketball (2)
 - PE 263B. Professional Activity Preparation of Team Sports: Football (Flag) (2)
 - PE 263C. Professional Activity Preparation of Team Sports: Soccer (2)

- PE 263D. Professional Activity Preparation of Team Sports: Softball (2)
- PE 263E. Professional Activity Preparation of Team Sports: Volleyball (2)
12. PE 280. Prevention and Treatment of Athletic Injuries (4)

Upper-division requirements (39 units)

1. PE 310. History and Philosophy of Physical Education and Sports (4)
2. PE 320. Motor Learning (4)
3. PE 323. Sport and Society (4)
4. PE 324. Psychological Aspects of Sport (4)
5. PE 355. Physical Education for Children (4)
6. PE 370. Measurement and Evaluation in Physical Education (4)
7. PE 470. Organization and Administration of Physical Education and Athletics (4)
8. PE 480. Kinesiology (4)
9. PE 481. Exercise Physiology (5)
10. PE 490. Seminar in Physical Education (2)

ADAPTED PHYSICAL EDUCATION SPECIALIST CREDENTIAL

Requirements (16 units)

Credential Requirements (16 units)

Upper-division requirements (16 units)

1. ESpe 530. Psychology and Education of Exceptional Individuals (4)
2. PE 330. Physical Education for the Exceptional Individual (4)
3. *Eight units chosen from:*
 - PE 331A. Topics in Adapted Physical Education: Adapted aquatics (2)
 - PE 331B. Topics in Adapted Physical Education: Physically handicapped (2)
 - PE 331C. Topics in Adapted Physical Education: Learning handicapped (2)
 - PE 331D. Topics in Adapted Physical Education: Communicatively handicapped (2)
 - PE 331E. Topics in Adapted Physical Education: Severely handicapped (2)

SINGLE SUBJECT TEACHING CREDENTIAL

The Bachelor of Science in Physical Education is approved as a single subject teaching credential program. In addition to the requirements of the

major, students must complete certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program or specific requirements for the single subject waiver program see Page 147 or contact the School of Education Student Teaching office.

MINOR IN PHYSICAL EDUCATION Requirements (33 units)

Requirements for a minor in Physical Education:

Lower-division requirements (20 units)

1. PE 210A. Topics in the Foundations of Physical Education: Introduction to Physical Education (2)
2. PE 254. Field Work in Physical Education or Recreation I (2)
3. *Eight units chosen from:*
 - PE 261A. Professional Activity Preparation in Individual and Dual Sports: Archery (2)
 - PE 261B. Professional Activity Preparation in Individual and Dual Sports: Badminton (2)
 - PE 261C. Professional Activity Preparation in Individual and Dual Sports: Dance (2)
 - PE 261D. Professional Activity Preparation in Individual and Dual Sports: Fitness and Conditioning (2)
 - PE 261E. Professional Activity Preparation in Individual and Dual Sports: Golf (2)
 - PE 261F. Professional Activity Preparation in Individual and Dual Sports: Gymnastics (2)
 - PE 261G. Professional Activity Preparation in Individual and Dual Sports: Racquetball (2)
 - PE 261H. Professional Activity Preparation in Individual and Dual Sports: Swimming (2)
 - PE 261J. Professional Activity Preparation in Individual and Dual Sports: Tennis (2)
 - PE 261K. Professional Activity Preparation in Individual and Dual Sports: Track and Field (2)
4. *Four units chosen from:*
 - PE 263A. Professional Activity Preparation of Team Sports: Basketball (2)
 - PE 263B. Professional Activity Preparation of Team Sports: Football (Flag) (2)
 - PE 263C. Professional Activity Preparation of Team Sports: Soccer (2)

- PE 263D. Professional Activity Preparation of Team Sports: Softball (2)
 PE 263E. Professional Activity Preparation of Team Sports: Volleyball (2)
 5. PE 280. Prevention and Treatment of Athletic Injuries (4)

Upper-division requirements (13 units)

1. PE 323. Sport and Society (4)
 or
 PE 324. Psychological Aspects of Sport (4)
 2. PE 470. Organization and Administration of Physical Education and Athletics (4)
 3. PE 481. Exercise Physiology (5)

MINOR IN RECREATION

Requirements (24 units)

Requirements for a minor in Recreation:

Lower-division requirements (16 units)

- PE 200. First Aid (2)
 PE 203. Introduction to Recreation (4)
 PE 254. Field Work in Physical Education or Recreation I (2)
 PE 271. Recreation Leadership (4)
 PE 277. Recreation Programming (4)

Upper-division requirements (8 units)

- PE 365. Outdoor Education and Camp Leadership (4)
 PE 470. Organization and Administration of Physical Education and Athletics (4)

CERTIFICATE PROGRAMS

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for further certificate information.

Certificate in Coaching

Certificate requirements (32 units)

Lower-division requirements (12 units)

1. PE 200. First Aid (2)
 2. *Four units chosen from:*
 PE 261A. Professional Activity Preparation in Individual and Dual Sports: Archery (2)
 PE 261B. Professional Activity Preparation in Individual and Dual Sports: Badminton (2)
 PE 261C. Professional Activity Preparation in Individual and Dual Sports: Dance (2)
 PE 261D. Professional Activity Preparation in Individual and Dual Sports: Fitness and Conditioning (2)
 PE 261E. Professional Activity Preparation in Individual and Dual Sports: Golf (2)
 PE 261F. Professional Activity Preparation in Individual and Dual Sports: Gymnastics (2)
 PE 261G. Professional Activity Preparation in Individual and Dual Sports: Racquetball (2)
 PE 261H. Professional Activity Preparation in Individual and Dual Sports: Swimming (2)
 PE 261J. Professional Activity Preparation in Individual and Dual Sports: Tennis (2)
 PE 261K. Professional Activity Preparation in Individual and Dual Sports: Track and Field (2)
 3. *Four units chosen from:*
 PE 263A. Professional Activity Preparation of Team Sports: Basketball (2)
 PE 263B. Professional Activity Preparation of Team Sports: Football (Flag) (2)
 PE 263C. Professional Activity Preparation of Team Sports: Soccer (2)
 PE 263D. Professional Activity Preparation of Team Sports: Softball (2)
 PE 263E. Professional Activity Preparation of Team Sports: Volleyball (2)
 4. PE 267. Sports Officiating (2)

Upper-division requirements (20 units)

1. PE 323. Sport and Society (4)
 2. PE 324. Psychological Aspects of Sport (4)
 3. PE 343. Methods and Techniques of Coaching (4)
 4. PE 470. Organization and Administration of Physical Education and Athletics (4)
 5. PE 480. Kinesiology (4)

Certificate in Fitness Management

Certificate requirements (33 units)

Lower-division requirement (4 units)

- PE 280. Prevention and Treatment of Athletic Injuries (4)

Upper-division requirements (29 units)

1. PE 454. Field Work in Physical Education or Recreation II (3)
2. PE 470. Organization and Administration of Physical Education and Athletics (4)
3. PE 480. Kinesiology (4)
4. PE 481. Exercise Physiology (5)
5. PE 482. Contemporary Fitness Programs (4)
6. PE 483. Exercise Prescription (5)
7. PE 580. Exercise, Energy and Human Performance (4)

Certificate in Recreation Leadership

Certificate requirements (31 units)

Lower-division requirements (20 units)

1. *Four units chosen from:*
 - PE 137A. Aquatic Activities: Lifeguard training (2)
 - PE 137C. Aquatic Activities: Basic and emergency water safety (2)
 - PE 137D. Aquatic Activities: Boating and canoeing (2)
 - PE 137F. Aquatic Activities: Scuba diving (2)
 - PE 137G. Aquatic Activities: Skin diving (2)
 - PE 137H. Aquatic Activities: Springboard diving (2)
 - PE 137J. Aquatic Activities: Swimming (2)
 - PE 137K. Aquatic Activities: Water polo (2)
2. *Four units chosen from:*
 - PE 146A. Outing Skills Activities: Backpacking (2)
 - PE 146B. Outing Skills Activities: Camping (2)
 - PE 146C. Outing Skills Activities: Mountaineering (2)
 - PE 146D. Outing Skills Activities: Orienteering (2)
 - PE 146E. Outing Skills Activities: Survival skills (2)
3. PE 203. Introduction to Recreation (4)
4. PE 271. Recreation Leadership (4)
5. PE 277. Recreation Programming (4)

Upper-division requirements (11 units)

1. PE 365. Outdoor Education and Camp Leadership (4)
2. PE 454. Field Work in Physical Education or Recreation II (3)
3. PE 470. Organization and Administration of Physical Education and Athletics (4)

Activity Courses (Physical Education 101-149)

The activity course program offers a wide variety of classes which provides students the opportunity to participate in physical activity on a regular basis; develop, improve and maintain a degree of physical fitness; learn and practice lifetime sports skills; and acquire the knowledge that physical exercise is essential for healthful adult living in current society. Classes are coeducational except where the type of activity deems it inappropriate. Not all courses listed are offered each academic year.

Activity Courses (Intercollegiate Athletics, Physical Education 160 and 190)

These courses are designed for those students participating in intercollegiate sports. If a student does not become a member of the squad, they will need to drop the course.

General education requirement for graduation:

All students are required to complete two units of physical education activity courses chosen from:

- PE 101. Individual and Dual Activities
- PE 114. Physical Fitness and Conditioning Activities
- PE 117. Combative Activities
- PE 121. Team Activities
- PE 137. Aquatic Activities
- PE 141. Dance Activities
- PE 146. Outing Skills Activities
- PE 147. A Fitness Odyssey
- PE 148. Leisure Sports
- PE 149. Independent Activity Project

Ten additional units of physical education activity courses (numbered 150 and below) for a total of twelve units maximum may be applied toward graduation.

DEPARTMENTAL HONORS

A graduating senior will be awarded departmental honors in physical education after meeting the following requirements:

1. 3.5 GPA in all physical education course work;
 2. 3.0 GPA overall;
 3. Over one-half of the course work for the physical education major must be taken at California State University, San Bernardino;
 4. Recommendation by the physical education faculty.
-

COURSE OFFERINGS IN PHYSICAL EDUCATION (PE)

Lower Division

The following activities include instruction at all skill levels unless specified in the class schedule as limited to beginning, intermediate or advanced level instruction.

101. Individual and Dual Activities

Development of basic skills, techniques, rules and strategies through instruction and practice in a variety of individual and dual type sports. Graded credit/no credit.

- A. Archery (2 units)
- B. Badminton (2 units)
- C. Bicycling (Field trips required.) (2 units)
- D. Bowling (Field trips required.) (2 units)
- F. Golf (Field trips required.) (2 units)
- G. Gymnastics (2 units)
- N. Racquetball (2 units)
- P. Skiing-Alpine (Field trips required.) (2 units)
- Q. Skiing-Nordic (Field trips required.) (2 units)
- S. Tennis (2 units)

114. Physical Fitness and Conditioning Activities

Principles, practices and individual evaluation in a variety of fitness and conditioning activities. Graded credit/no credit.

- A. Body conditioning (2 units)
- B. Circuit training (2 units)
- C. Jogging (2 units)
- E. Weight training (2 units)
- F. Yoga (2 units)

117. Combative Activities

Instruction and practice in the basic skills and techniques utilized in selected combative type activities. Graded credit/no credit.

- B. Fencing (2 units)
- C. Judo (2 units)
- D. Karate (2 units)
- E. Wrestling (2 units)

121. Team Activities

Basic skills, techniques, rules and strategies of selected team sports achieved through participation. Graded credit/no credit.

- A. Basketball (2 units)
- C. Flag football (2 units)
- F. Soccer (2 units)
- G. Softball (2 units)
- J. Team handball (2 units)
- K. Volleyball (2 units)

137. Aquatic Activities

- A. Lifeguard training. Graded credit/no credit. (Red Cross certification available.) (2 units)
- C. Basic and emergency water safety. Graded credit/no credit. (Red Cross certification available.) (2 units)
- D. Boating and canoeing. Graded credit/no credit. (Field trips required. Red Cross certification available.) (2 units)
- F. Scuba diving. Graded credit/no credit. *Prerequisite: skin diving or consent of instructor.* (Field trips required. NAUI certification available. Doctor's physical examination required.) (2 units)
- G. Skin diving. Graded credit/no credit. (Field trips required. NAUI certification available.) (2 units)
- H. Springboard diving. Graded credit/no credit. (2 units)
- J. Swimming. Graded credit/no credit. (Red Cross certification available.) (2 units)
- K. Water polo. Graded credit/no credit. (2 units)

141. Dance Activities

Proficiency and practice in basic dance steps and the exploration of movement, expression and creativity utilized in dance. Graded credit/no credit.

- A. Aerobic (2 units)
- B. Ballet (2 units)
- E. Folk (2 units)
- F. Jazz (2 units)
- G. Jazz-exercise (2 units)
- H. Modern (2 units)
- J. Social (2 units)
- K. Square (2 units)

146. Outing Skills Activities

Introduction and practice to basic skills, equipment and safety techniques common to the spectrum of outdoor/wilderness activities. Field trips required. Graded credit/no credit.

- A. Backpacking (2 units)
- B. Camping (2 units)
- C. Mountaineering (2 units)
- D. Orienteering (Also offered as Military Science 146D. Students may not receive credit for both.) (2 units)
- E. Survival Skills (Also offered as Military Science 146E. Students may not receive credit for both.) (2 units)

147. A Fitness Odyssey

A self-paced exercise and/or plan of study for the mature adult. Programs designed to fit individual life style needs on a contract basis following examination of past and present activity patterns. Graded credit/no credit. (2 units)

148. Leisure Sports

Mild to moderately active leisure activities suited to the capabilities and interests of the mature adult. Graded credit/no credit. (2 units)

149. Independent Activity Project

Activity project designed to satisfy individual needs of students who cannot meet requirements of a regular activity class due to a medical, physical or other conflict; under the supervision of a faculty member. Graded credit/no credit. *Prerequisite: consent of department chair.* (2 units)

160. Women's Intercollegiate Activities

Enrollment limited to members of intercollegiate sports teams. The intercollegiate activity units may not be substituted for physical education activity units in the undergraduate degree requirements. Graded credit/no credit.

- A. Volleyball (2 units)
- B. Cross Country (2 units)
- C. Basketball (2 units)
- D. Tennis (2 units)
- E. Softball (2 units)
- F. Swimming (2 units)

190. Men's Intercollegiate Activities

Enrollment limited to members of intercollegiate sports teams. The intercollegiate activity units may not be substituted for physical education activity units in the undergraduate degree requirements. Graded credit/no credit.

- A. Soccer (2 units)
- B. Cross Country (2 units)
- C. Basketball (2 units)
- D. Tennis (2 units)

- E. Golf (2 units)
- F. Baseball (2 units)
- G. Water Polo (2 units)
- H. Swimming (2 units)

200. First Aid

The emergency care and treatment of illnesses and injuries including training in cardiopulmonary resuscitation (CPR). May lead to certification in Standard First Aid from the American Red Cross and/or CPR from the American Heart Association. (2 units)

203. Introduction to Recreation

Orientation to recreation as a profession: Meaning, content, history, philosophy and scope of the field of recreation. (4 units)

205. Foundations for Lifetime Fitness

Analysis of foundation issues related to lifetime fitness. Examination of contemporary issues of physical well being. Typical topics covered are to live and be healthy, holistic nature of exercise and performance, body composition, weight control, exercise and nutrition, relaxation and stress management, and concepts of human movement. (2 units)

210. Topics in the Foundations of Physical Education

Courses designed to survey the fundamental principles, objectives, history and philosophies in the discipline of physical education.

- A. Introduction to Physical Education (2 units)
- B. Introduction to Adapted Physical Education (2 units)

254. Field Work in Physical Education or Recreation I

A supervised experience in the Department of Physical Education under the direction of a faculty member. One hour lecture and three hours of observation. *Prerequisite: one course from the Physical Education 261 or 262 sequence or one course from the Physical Education 263 or 266 sequence.* (2 units)

261. Professional Activity Preparation in Individual and Dual Sports

The development of techniques and skills of individual/dual activities. *Prerequisite: one of the following: Physical Education 210A, 210B, 210C, 210D or 310.*

- A. Archery (2 units)
- B. Badminton (2 units)
- C. Dance (2 units)
- D. Fitness and Conditioning (2 units)
- E. Golf (2 units)
- F. Gymnastics (2 units)
- G. Racquetball (2 units)
- H. Swimming (2 units)
- J. Tennis (2 units)
- K. Track and Field (2 units)

263. Professional Activity Preparation of Team Sports

The development of techniques and skills of team activity. *Prerequisite: one of the following: Physical Education 210A, 210B, 210C, 210D and 310.*

- A. Basketball (2 units)
- B. Football (Flag) (2 units)
- C. Soccer (2 units)
- D. Softball (2 units)
- E. Volleyball (2 units)

267. Sports Officiating

An introduction to contest rules and mechanics of officiating for selected sports. Personal and philosophical bases for successful officiating are examined. (2 units)

271. Recreation Leadership

Organization, supervision and administration of recreation programs and practical experience in recreation situations which provide the opportunity to develop leadership skills. (4 units)

277. Recreation Programming

Materials and methods used in planning and conducting programs in recreation, such as social recreation, dramatics, art and sports. *Prerequisite: Physical Education 203 or 271.* (4 units)

280. Prevention and Treatment of Athletic Injuries

Theories and methods in the prevention, assessment, treatment and rehabilitation of athletic injuries, including practical experience. Materials fee required.

Prerequisites: Biology 223 and 224. (4 units)

Upper Division**310. History and Philosophy of Physical Education and Sports**

Examination of historical influences on and philosophical interpretation of the evolution of sport and physical education from ancient Greece to present with emphasis on effects in the United States. (4 units)

320. Motor Learning

Scientific analysis of perceptual motor behavior; learning, memory, transfer theories, motor control and motor performance in physical activity. (4 units)

323. Sport and Society

An examination of sociocultural aspects of sport with an emphasis on the American sport structure. May not be taken for credit by students who have received credit for Physical Education 321. (4 units)

324. Psychological Aspects of Sport

The psychological realm of sport and physical activity including the nature, significance and development of sport psychology. May not be taken for credit by students who have received credit for Physical Education 322. (4 units)

330. Physical Education for the Exceptional Individual

Investigation and analysis of disabilities encountered in the environment of physical education. *Prerequisites: Physical Education 210B and 320, or consent of department.* (4 units)

331. Topics in Adapted Physical Education

Materials, techniques of assessment, methods of instruction and activities utilized in physical education for individuals with disabilities. *Prerequisite: Physical Education 330.*

- A. Adapted aquatics (American Red Cross certification) (2 units)
- B. Physically handicapped (2 units)
- C. Learning handicapped (2 units)
- D. Communicatively handicapped (2 units)
- E. Severely handicapped (2 units)

343. Methods and Techniques of Coaching

Strategies, practice organization and planning for coaching of athletic teams. The purpose of school athletics, public relations responsibilities and personal qualities for success are examined. (4 units)

355. Physical Education for Children

Development of physical education programs for children ages 5-12 including selection of activities. (4 units)

362. Water Safety Instruction

Materials and methods in organizing school, community and camp aquatic programs. Supervised practice in teaching aquatics. Meets standards for Red Cross certification for teaching all levels of swimming, life saving and small craft safety. One hour lecture and three hours laboratory. *Prerequisite: current advanced life-saving certificate.* (2 units)

365. Outdoor Education and Camp Leadership

Knowledge, concepts and techniques for the administration and organization of camps and for working with people in the out-of-doors. Includes a supervised leadership experience and field trips to observe camp facilities, programs and resources. (4 units)

370. Measurement and Evaluation in Physical Education

Selection, application and interpretation of tests utilized in physical education and recreation. *Prerequisites: Physical Education 210A and 210B.* (4 units)

380. Advanced Assessment and Rehabilitation of Athletic Injuries

Study of specific techniques of injury evaluation and assessment. Development and application of rehabilitation programs. Four hours lecture plus eight hours of arranged fieldwork per week. *Prerequisite: Physical Education 280.* (4 units)

454. Field Work in Physical Education or Recreation II

A supervised leadership experience in a physical education, recreational or intramural setting. *Prerequisites: Physical Education 254 and 470.* (3 units)

470. Organization and Administration of Physical Education and Athletics

Organizational and administrative structures, problems, issues and practices relevant to physical education and athletics in various settings. *Prerequisites: one course from the Physical Education 261 sequence and one course from the Physical Education 263 sequence.* (4 units)

480. Kinesiology

Analysis of human movement as based on anatomical neuromuscular and mechanical principles. *Prerequisites: Biology 223 and 224.* (4 units)

481. Exercise Physiology

Effects of physical activity on the physiological systems of the human body. Four hours lecture and three hours laboratory. *Prerequisites: Biology 223 and 224.* (5 units)

482. Contemporary Fitness Programs

Analysis of contemporary methods and technologies used in fitness programs. Critiques made in light of research findings and practical applications. May not be taken for credit by students who have received credit for Physical Education 420. (4 units)

483. Exercise Prescription

Development of skills for assessment and prescription of exercise and training schedules for normal, high level fitness and special populations. Four hours lecture and three hours laboratory. May not be taken for credit by students who have received credit for Physical Education 430. (5 units)

490. Seminar in Physical Education

Selected topics in physical education and recreation. *Prerequisite: senior standing or consent of department.* (2 units)

499. Methods and Materials in the Teaching of Physical Education

Individualized instruction in the methods and materials for the teaching of physical education. *Prerequisites: Education 330 or 332, senior or graduate standing and admission to the single subject credential program or consent of the School of Natural Sciences.* (4 units)

580. Exercise, Energy and Human Performance

Energy demands and dietary adjustments required in physical performance with emphasis on high intensity activities. Consideration of climactic factors, ergogenic aids and synthetic substance ingestion. May not be taken for credit by students who have received credit for Physical Education 412. *Prerequisite: Physical Education 481.* (4 units)

595. Independent Study

Experimental effort, field or library research conducted under the direction of a faculty member. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Graduate Seminar

Examination of selected disciplinary and professional issues in physical education through critical analysis of literature and research findings. (2 units)

623. Sport and Social Issues

Social aspects of sport including social values, race, gender, ethnicity and social deviance. May not be taken for credit by students who have received credit for Physical Education 630. (4 units)

624. Sport Psychology

The study of underlying psychological factors in sports. To include educational implications, strategies with young athletes, and dynamics of the sport group. May not be taken for credit by students who have received credit for Physical Education 625. (4 units)

630. Physical Education for Special Populations

Physical activity assessment, and program development for impaired populations. (4 units)

670. Leadership in Physical Education

Theory and analysis of leadership behavior in physical education. Emphasis on developing leadership knowledge, qualities, and skills applicable to diverse physical activity settings. May not be taken for credit by students who have received credit for Physical Education 620. (4 units)

681. Exercise and Sport Science

The fundamental principles of exercise physiology as applied to physical activity, sport, and human performance. May not be taken for credit by students who have received credit for Physical Education 640. (4 units)

PHYSICS

Department of Physics

*Physical Sciences Building, Room 319
880-5397*

Bachelor of Arts

Physics

Bachelor of Science

Physics

Teaching Credential Program

Physics

Minor

Physics

Traditionally physics graduates either have gone on to graduate work in physics or have found employment in industrial or governmental laboratories. Other opportunities which have recently become interesting for physics graduates include atmospheric physics (including air pollution studies), geophysics, radiation safety, oceanography, astrophysics, technical administration, biophysics, computer science and medical instrumentation development.

The program for a bachelor of arts degree in physics provides basic knowledge in the main subject areas of physics as well as an opportunity for students to elect a considerable number of courses in other disciplines. The bachelor of science program includes additional course work in physics and related fields which further prepares a student for employment or graduate work.

Pre-engineering—Although CSU San Bernardino does not offer an engineering degree, the campus does provide a pre-engineering program that allows the student to complete the first two years of courses generic to engineering. The student may then transfer to an accredited engineering program of their choice. The following courses have been recommended as appropriate transfer courses: Chemistry 215, 216, Mathematics 211, 212, 213, 251, 252, Physics 221, 222, 223, 234, 235 and selected courses in computer science and general education.

B.A. IN PHYSICS

Requirements (97 units)

Requirements for the B.A. in Physics:

Lower-division requirements (47 units)

1. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)

2. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
3. Math 211. Basic Concepts of Calculus (4)
4. Math 212. Calculus II (4)
5. Math 213. Calculus III (4)
6. Math 251. Multivariable Calculus I (4)
7. Math 252. Multivariable Calculus II (4)
8. Phys 221. General Physics I (5)
9. Phys 222. General Physics II (5)
10. Phys 223. General Physics III (5)

Upper-division requirements (22 units)

1. Phys 306. Intermediate Classical Mechanics (4)
2. Phys 313. Electrodynamics (4)
3. Phys 321. Modern Physics (4)
4. Phys 323. Thermodynamics (4)
5. Phys 373. Mathematical Methods of Physics I (4)
6. Phys 430. Advanced Physics Laboratory (2)

Elective course work (28 units)

1. *Eight units of upper-division physics courses selected with the approval of the department and chosen from:*
 - Phys 315. Introduction to Modern Optics (4)
 - Phys 370. Introduction to Astrophysics (4)
 - Phys 406. Advanced Mechanics (4)
 - Phys 414. Advanced Electrodynamics (4)
 - Phys 422. Quantum Physics (4)
 - Phys 424. Statistical Mechanics (4)
 - Phys 450. Introduction to Solid State Physics (4)
 - Phys 461. Introduction to Nuclear Physics (4)
 - Phys 463. Introduction to Elementary Particle Physics (4)
 - Phys 473. Mathematical Methods of Physics II (4)
 - Phys 480A. Advanced Topics in Physics: Mechanics (4)
 - Phys 480B. Advanced Topics in Physics: Electrodynamics (4)
 - Phys 485. Seminar: Topics in Contemporary Physics (2)
 - Phys 573. Mathematical Methods of Physics III (4)
 - Phys 595. Independent Study (1 to 6)
2. Twelve units of upper-division electives selected from course work in the School of Natural Sciences with the approval of the Physics Department.
3. Four units of computer science course work at the 200-level or above selected with the approval of the Physics Department.
4. *Four units chosen from:*
 - Math 270. Elementary Differential Equations (4)
 - Math 331. Linear Algebra (4)

B.S. IN PHYSICS

Requirements (109 units)

Requirements for the B.S. in Physics:

Lower-division requirements (51 units)

1. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding (6)
2. Chem 216. General Chemistry II: Principles of Chemical Reactions (6)
3. Math 211. Basic Concepts of Calculus (4)
4. Math 212. Calculus II (4)
5. Math 213. Calculus III (4)
6. Math 251. Multivariable Calculus I (4)
7. Math 252. Multivariable Calculus II (4)
8. Math 270. Elementary Differential Equations (4)
9. Phys 221. General Physics I (5)
10. Phys 222. General Physics II (5)
11. Phys 223. General Physics III (5)

Upper-division requirements (26 units)

1. Math 331. Linear Algebra (4)
2. Phys 306. Intermediate Classical Mechanics (4)
3. Phys 313. Electrodynamics (4)
4. Phys 321. Modern Physics (4)
5. Phys 323. Thermodynamics (4)
6. Phys 373. Mathematical Methods of Physics I (4)
7. Phys 430. Advanced Physics Laboratory (2)

Elective Course Work (32 units)

1. *Twenty units of upper-division physics courses selected with the approval of the department and chosen from:*
 - Phys 315. Introduction to Modern Optics (4)
 - Phys 370. Introduction to Astrophysics (4)
 - Phys 406. Advanced Mechanics (4)
 - Phys 414. Advanced Electrodynamics (4)
 - Phys 422. Quantum Physics (4)
 - Phys 424. Statistical Mechanics (4)
 - Phys 450. Introduction to Solid State Physics (4)
 - Phys 461. Introduction to Nuclear Physics (4)
 - Phys. 463. Introduction to Elementary Particle Physics (4)
 - Phys 473. Mathematical Methods of Physics II (4)
 - Phys 480A. Advanced Topics in Physics: Mechanics (4)
 - Phys 480B. Advanced Topics in Physics: Electrodynamics (4)
 - Phys 485. Seminar: Topics in Contemporary Physics (4)
 - Phys 573. Mathematical Methods of Physics III (4)

- Phys 595. Independent Study (1 to 6)
2. Eight units of upper-division electives selected from course work in the School of Natural Sciences with the approval of the Physics Department.
3. Four units of computer science course work at the 200 level or above selected with the approval of the Physics Department.

TEACHING CREDENTIAL PROGRAM

Students wishing to be recommended for a single subject teaching credential in physical science must either within the major or as electives in addition to the requirements for the Bachelor of Arts or Bachelor of Science degree in Physics take the following:

1. Chem 215. General Chemistry I: Atomic Structure and Chemical Bonding
2. Chem 216. General Chemistry II: Principles of Chemical Reactions
3. Chem 217. Introductory Chemistry III: Modern Quantitative Analysis
or
Chem 245. Modern Quantitative Analysis
4. Chem 221. Organic Chemistry I
5. Geol 101. Physical Geology
6. Geol 440. Geology of California
or
Geol 310. Intermediate Field Studies
7. Phys 103. Descriptive Astronomy
or
NSci 100. Descriptive Astronomy

In addition, certain prerequisites and professional education courses are required. For information about admission to the teacher education program, education courses required or the specific requirements of the single subject waiver program see Page 147 or contact the School of Education Credentials office.

MINOR IN PHYSICS

Requirements (55 units)

Requirements for a minor in Physics:

Lower-division requirements (35 units)

1. Math 211. Basic Concepts of Calculus (4)
2. Math 212. Calculus II (4)
3. Math 213. Calculus III (4)
4. Math 251. Multivariable Calculus I (4)
5. Math 252. Multivariable Calculus II (4)
6. Phys 221. General Physics I (5)
7. Phys 222. General Physics II (5)

8. Phys 223. General Physics III (5)
Upper-division requirements (20 units)
1. Phys 306. Intermediate Classical Mechanics (4)
 2. Phys 313. Electrodynamics (4)
 3. Phys 321. Modern Physics (4)
 4. Phys 323. Thermodynamics (4)
 5. Phys 373. Mathematical Methods of Physics I (4)

COURSE OFFERINGS IN PHYSICS (Phys)

Lower Division

100. Physics in the Modern World

Examination of physics and its contemporary use, including topics of: mechanics, electricity, optics, sound, heat and radioactivity. This course is intended for students with little background in science. Four hours lecture and three hours laboratory. *Prerequisite: satisfactory score on the entry level mathematics examination.* (5 units)

103. Descriptive Astronomy

A brief history of the development of astronomy followed by modern descriptions of our planetary system, stars, galaxies, models of the universe and the possibilities of life in the universe. Discussions of methods of extending knowledge of the universe. No previous background in natural sciences is required. Four hours lecture and three hours laboratory. May not be taken for credit by students who have received credit for Natural Sciences 100. (5 units)

121. Basic Concepts of Physics I

First course of a three-course sequence surveying the basic concepts of physics, primarily for students entering fields relating to the biological sciences. This course will cover the basic principles of mechanics. Four hours lecture and three hours laboratory. *Prerequisites: two years of high school algebra and one year of high school geometry.* Recommended preparation: Mathematics 120 or a higher level mathematics course. (5 units)

122. Basic Concepts of Physics II

Continuation of Physics 121. Topics include electricity, electric circuits and magnetism. Three hours lecture and three hours laboratory. *Prerequisite: Physics 121 with a grade of "C" or better.* (4 units)

123. Basic Concepts of Physics III

Continuation of Physics 122. Topics include optics, waves and modern physics. Three hours lecture and three hours laboratory. *Prerequisite: Physics 122 with a grade of "C" or better.* (4 units)

221. General Physics I

First of a three-course sequence surveying physics. This course will cover the principles of mechanics. For students with a strong background in mathematics and the sciences. Four hours lecture and three hours laboratory. *Prerequisite: Mathematics 211 (or 200)* (5 units)

222. General Physics II

Continuation of Physics 221. Topics include electricity, electric circuits and magnetism. Four hours lecture and three hours laboratory. *Prerequisites: Physics 221 with a grade of "C" or better, Mathematics 112 (or 201).* (5 units)

223. General Physics III

Continuation of Physics 222. Topics include optics, waves and modern physics. Four hours lecture and three hours laboratory. *Prerequisite: Physics 222 with a grade of "C" or better.* (5 units)

234. Vector Statics

Two and three dimensional equilibria of frames, machines, and trusses using vector algebra; friction; principles of moments, moments of inertia for areas and masses, centroids and centers of gravity. *Prerequisite: Physics 221. Prerequisite or corequisite: Mathematics 213.* (4 units)

235. Vector Dynamics

Vector treatment of absolute and relative motion of particles and rigid bodies in translating and rotating reference frames. Newton's law of motion, work-energy, impulse-momentum. *Prerequisite: Physics 234 with a grade of "C" or better. Prerequisite or corequisite: Mathematics 251.* (4 units)

Upper Division

306. Intermediate Classical Mechanics

A continuing study of dynamics with an introduction to advanced formulations. Lecture only. *Prerequisites: Mathematics 251 and Physics 223.* (4 units)

313. Electrodynamics

Derivation and applications of Maxwell's equations. Four hours lecture. *Prerequisites: Mathematics 251 and Physics 222, 310 or 373.* (4 units)

315. Introduction to Modern Optics

An introduction to geometrical optics, physical optics and lasers. Four hours lecture. *Prerequisite: Physics 313.* (4 units)

321. Modern Physics

An introduction to contemporary physics. Topics include the special theory of relativity, early quantum theory and an introduction to quantum mechanics. Four hours lecture. May not be taken for credit by students who have received credit for Physics 421. *Prerequisites: Physics 223, Mathematics 213 (or 202).* (4 units)

323. Thermodynamics

Fundamentals of thermodynamics. Topics include: the postulates of thermodynamics, equations of state, thermodynamic processes, Legendre transformations, Maxwell relations, phase transitions and applications to chemical, electrical and transport phenomena. *Prerequisites: Physics 223 and Mathematics 251.* (4 units)

370. Introduction to Astrophysics

Basic principles of stellar structure and evolution, galactic structure, extragalactic astronomy and cosmology. Four hours lecture. *Prerequisites: Mathematics 251 and Physics 223, 310 or 373.* (4 units)

373. Mathematical Methods of Physics I

Vector analysis, matrices and introductory complex analysis. Applications of ordinary differential equations and Laplace transforms. Emphasis on techniques applicable to the problems of physics. (Also offered as Mathematics 373. Students may not receive credit for both.) May not be taken for credit by students who have received credit for Physics 310 or Mathematics 310.

Prerequisites: Physics 222 and one of the following: Mathematics 202, 203, 252. Mathematics 331 is recommended. (4 units)

406. Advanced Mechanics

A continuation of Physics 306 with emphasis in Lagrangian and Hamiltonian formulation in classical mechanics. May not be taken for credit by students who have received credit for Physics 418A. Four hours lecture.

Prerequisites: Physics 306 and one of the following: Physics 373 (or 310), Mathematics 373 (or 310). (4 units)

414. Advanced Electrodynamics

A continuation of Physics 313 with advanced applications of Maxwell's equations and electromagnetic waves. May not be taken for credit by students who have received credit for Physics 418B. Four hours lecture. *Prerequisites: Physics 313 and 473 or Mathematics 473. (4 units)*

422. Quantum Physics

Advanced study of the principles of quantum mechanics introduced in Physics 321. Topics include the axiomatic formulation of quantum mechanics, Schrodinger equation, eigenfunctions and eigenvalues, spin and angular momentum, approximation methods and scattering. *Prerequisites: Physics 306, 313, and 321. (4 units)*

424. Statistical Mechanics

Fundamentals of statistical mechanics. Topics include: basics of statistics, microscopic foundations of thermodynamics, canonical distribution, partition function, applications to classical gases and magnetism and quantum statistics of ideal gases. *Prerequisites: Physics 321 and 323. (4 units)*

430. Advanced Physics Laboratory

Selected advanced experiments appropriate to a student's previous preparation. May be repeated for credit. Six hours laboratory per week. *Prerequisite: Physics 222. (2 units)*

450. Introduction to Solid State Physics

Basic concepts of solid state physics, including crystal structure; free electron gas model; electronic structure of solids; phonons; properties of metals, insulators and semiconductors; magnetism; superconductivity. Four hours lecture. May not be taken for credit by students who have received credit for Physics 432. *Prerequisite: Physics 422. (4 units)*

461. Introduction to Nuclear Physics

Basic concepts of nuclear structure and reactions, including accelerators and detectors, the nucleon-nucleon force, basic nuclear properties, the shell model, radioactivity, heavy ion reactions and quarks. Four hours lecture. *Prerequisites: Physics 306, 422 and 373 or Mathematics 373. (4 units)*

463. Introduction to Elementary Particle Physics

A survey of elementary particle physics, including accelerators, relativistic kinematics, conservation laws, quarks, the standard model, and quantum field theories. Four hours lecture. *Prerequisites: Physics 306, 373 or Mathematics 373, and Physics 422. (4 units)*

473. Mathematical Methods of Physics II

A continuation of Mathematics 373 and Physics 373 with emphasis on advanced topics including Fourier transforms, functions of a complex variable and partial differential equations. Additional topics chosen from: tensor analysis, linear algebra and ordinary differential equations. (Also offered as Mathematics 473. Students may not receive credit for both.) May not be taken for credit by students who have received credit for Mathematics 425 or Physics 425. *Prerequisite: one of the following: Mathematics 310, 373, Physics 310, 373. Mathematics 331 and Physics 223 are strongly recommended. (4 units)*

480. Topics in Classical Physics

Further treatment of topics in physics introduced in previous courses.

A. Mechanics. *Prerequisite: Physics 406. (4 units)*

B. Electrodynamics. *Prerequisite: Physics 414. (4 units)*

485. Seminar: Topics in Contemporary Physics

A lecture course on a current topic or on new developments in physics. May be repeated for credit as topics change. (2 units)

573. Mathematical Methods of Physics III

A continuation of Mathematics 473 and Physics 473 with emphasis on advanced topics including calculus of variations, tensor analysis and elliptic functions. Additional topics chosen from functions of a complex variable, integral transforms and probability. (Also offered as Mathematics 573. Students may not receive credit for both.) *Prerequisites: Mathematics 331, Mathematics 425 or Physics 425 or Mathematics 473 or Physics 473, and at least one 300-level Physics course. (4 units)*

595. Independent Study

Research in physics conducted under the direction of a faculty member. A total of six units in Physics 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken. (Credit to be arranged: 1 to 6 units)*

POLITICAL SCIENCE

Department of Political Science

Faculty Office Building, Room 146
880-5535

Bachelor of Arts

Political Science
Single Subject Waiver Program

Teaching Credential Program

Single Subject

Minor

Political Science
Pre-law

Master of Arts

National Security Studies
(Degree requirements can be found on Page 383.)

Certificate Programs

International Relations
Paralegal Studies

The major in political science is designed for students who desire a liberal arts program with an emphasis on politics, government and public policy; plan a career in government service or public administration; seek training for positions in foreign service agencies of the United States government, international organizations or corporations; intend to study law; wish to prepare for teaching in the public schools; or intend to work for advanced degrees in political science in preparation for college or university teaching or for government service.

The department offers courses in the following fields:

American government and politics
Comparative politics
International relations
Political theory
Public policy and administration

B.A. IN POLITICAL SCIENCE

Requirements (60 units)

Requirements for the B.A. in Political Science:

1. PSci 100. Introduction to Political Science (4)
2. PSci 203. American Government (4)
3. PSci 314. American Political Thought (4)
4. *Eight units chosen from American government and politics:*
PSci 320. The Legislative Process (4)

- PSci 326. Political Parties and Interest Groups (4)
- PSci 428. Formulation of Public Policy (4)
- PSci 431. The American Presidency (4)
5. *Eight units chosen from comparative government:*
PSci 300. Western Political Systems (4)
PSci 304. Communist Political Systems (4)
PSci 306. Developing Political Systems (4)
 6. *Eight units chosen from international relations:*
PSci 325. American Foreign Policy (4)
PSci 400. International Politics (4)
PSci 484. National Security Policy (4)
PSci 500. International Law (4)
PSci 510. International Organization (4)
 7. *Eight units chosen from political theory:*
PSci 310. Classical Political Thought (4)
PSci 311. Foundations of Modern Political Thought (4)
PSci 313. Contemporary Political Thought (4)
 8. *Eight units chosen from public law:*
PSci 328. Judicial Process (4)
PSci 410. American Constitutional Law (4)
PSci 411. The Bill of Rights (4)
 9. *Eight additional units of electives in upper-division course work in political science, four of which must be chosen from:*
PSci 530. Studies in Political Theory (4)
PSci 535. Seminar in Constitutional Law (4)
PSci 590. Seminar in International Relations (4)
PSci 592. Seminar in Government (4)

The following will count as electives only after approval by the department chair:

A. Political Science 575. Internship in Political Science

B. Political Science 595. Independent Study

With approval of the department chair, up to eight units in related fields may be counted toward the upper-division course requirement in political science.

Note: *Students in the political science major must meet their general education mathematics requirement by taking four units chosen from:*

- Math 110. College Algebra (4)
- Math 120. Pre-Calculus Mathematics (4)
- Math 211. Basic Concepts of Calculus (4)

SINGLE SUBJECT WAIVER PROGRAM

Requirements (68 units)

Requirements for the Single Subject Waiver Program:

1. PSci 100. Introduction to Political Science (4)
 2. PSci 203. American Government (4)
 3. PSci 306. Developing Political Systems (4)
 4. PSci 314. American Political Thought (4)
 5. PSci 330. State and Local Politics (4)
 6. PSci 410. American Constitutional Law (4)
 7. PSci 411. The Bill of Rights (4)
 8. PSci 450. Political Socialization (4)
 9. *Four units chosen from:*
 - PSci 300. Western Political Systems (4)
 - PSci 304. Communist Political Systems (4)
 10. *Four units chosen from:*
 - PSci 400. International Politics (4)
 - PSci 500. International Law (4)
 - PSci 510. International Organization (4)
 11. *Four units chosen from:*
 - PSci 310. Classical Political Thought (4)
 - PSci 311. Foundations of Modern Political Thought (4)
 - PSci 313. Contemporary Political Thought (4)
 12. Twenty-four units to be chosen from upper-division political science electives. With the approval of the department chair, up to eight units of upper-division course work in related fields may be counted toward the upper-division elective course requirement in the major.
-

MINOR IN POLITICAL SCIENCE

Requirements (32 units)

Requirements for a minor in Political Science:

1. PSci 100. Introduction to Political Science (4)
 2. PSci 203. American Government (4)
 3. PSci 314. American Political Thought (4)
 4. Twenty units of upper-division political science course work chosen in consultation with an advisor.
-

MINOR IN PRE-LAW

Requirements (28 units)

Requirements for a minor in Pre-law:

1. PSci 328. Judicial Process (4)

2. PSci 410. American Constitutional Law (4)
 3. PSci 411. The Bill of Rights (4)
 4. PSci 535. Seminar in Constitutional Law (4)
 5. *Twelve units chosen from:*
 - A. CJus 353. Juvenile Justice System (4)
 - B. CJus 359. Law and Society (4)
 - or
 - Soc 359. Law and Society (4)
 - C. Hist 540. Constitutional History of the United States (4)
 - D. Mgmt 330. Legal Environment of Business (4)
 - E. PA 472. Administrative Law (4)
 - F. *One of the following:*
 - Phil 466A. Philosophy of Law: The Concept of Law (4)
 - Phil 466B. Philosophy of Law: Morality and the Law (4)
 - Phil 466C. Philosophy of Law: Rights and the Law (4)
 - G. PSci 500. International Law (4)
-

DEPARTMENTAL HONORS

Students majoring in political science are eligible to receive honors in political science at graduation when they meet the following requirements:

1. A 3.5 grade-point average in all political science courses attempted;
 2. At least half of all work in political science completed at this University;
 3. Recommendation for departmental honors by political science faculty.
-

PI SIGMA ALPHA

Students majoring in political science who have a grade-point average of at least 3.0 overall and 3.0 in the major have the opportunity to join Pi Sigma Alpha, the national honor society in political science. Additional information can be obtained from the Department of Political Science.

MASTER OF ARTS IN NATIONAL SECURITY STUDIES

This graduate program emphasizes international relations and national defense. Refer to Page 381 for specific requirements. Information, brochures and applications are available through the National Security Studies program office, Biology Building, Room 29B, (714) 880-5534, at George Air Force Base, (619) 246-8783 or at March Air Force Base, (714) 635-1135.

CERTIFICATE PROGRAMS

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in International Relations

Certificate Requirements (32 units)

1. *Twenty units chosen from:*
 - A. PSci 300. Western Political Systems (4)
 - B. PSci 304. Communist Political Systems (4)
 - C. PSci 306. Developing Political Systems (4)
 - D. PSci 325. American Foreign Policy (4)
 - E. PSci 400. International Politics (4)
 - F. PSci 484. National Security Policy (4)
 - G. PSci 500. International Law (4)
 - H. PSci 510. International Organization (4)
 - I. *Four of the twenty units may be chosen from:*
 - PSci 480A. International Relations in the Pacific Basin: Regional Affairs (4)
 - PSci 480B. International Relations in the Pacific Basin: East Asia (4)
 - PSci 480C. International Relations in the Pacific Basin: Southeast Asia (4)
 - PSci 480D. International Relations in the Pacific Basin: Oceania (4)
 - PSci 480E. International Relations in the Pacific Basin: Philippines (4)
 - PSci 480F. International Relations in the Pacific Basin: Japan (4)
 - PSci 480G. International Relations in the Pacific Basin: Korea (4)
 - PSci 480H. International Relations in the Pacific Basin: Singapore (4)
 - PSci 480J. International Relations in the Pacific Basin: Indonesia (4)
2. *Twelve units chosen from:*
 - Econ 420. Comparative Economic Systems (4)
 - Econ 430. International Economics (4)
 - Econ 450. Economic Development (4)
 - Hist 556. Foreign Relations of the United States (4)
 - Mktg 470. International Marketing Management (4)
 - SSci 300. Nonwestern World (4)

Certificate in Paralegal Studies

The department also offers a Certificate in Paralegal Studies, refer to Page 252 for details.

COURSE OFFERINGS IN POLITICAL SCIENCE (PSci)

Lower Division

100. Introduction to Political Science

Introduction to the scope of the discipline, to its basic philosophical concepts and methods, and to political action in various cultural contexts. (4 units)

101. Introduction to American Governmental Institutions

Basic introduction to American institutions. Intended primarily for foreign students with limited knowledge of American government. *Prerequisite: consent of instructor.* (2 units)

203. American Government

Political structure and processes of the American governmental system. This course meets the state code requirements in U.S. Constitution and state and local government. (4 units)

Upper Division

300. Western Political Systems

Major Western political systems. (4 units)

304. Communist Political Systems

Examination of the relationships among communist political systems. (4 units)

306. Developing Political Systems

Political systems, governmental structures, political orientation and foreign policies of developing nations. (4 units)

310. Classical Political Thought

Classical political thought through a consideration of representative political thinkers such as Plato, Aristotle, Thucydides, Cicero, Lucretius. (4 units)

311. Foundations of Modern Political Thought

Major political ideas of the early modern period ranging from Machiavelli through Hobbes, Locke, Rousseau and Burke. (4 units)

313. Contemporary Political Thought

Political ideas of nineteenth and twentieth century theorists (other than the Marxists). (4 units)

314. American Political Thought

American political ideas from the colonial period to the present. This course meets the state code requirement in U.S. history. (4 units)

315. Marxist Political Thought

Political ideas of Marx, Engels, Lenin and other Marxist theorists. (4 units)

320. The Legislative Process

Law-making processes in the United States and/or other selected political systems. (4 units)

325. American Foreign Policy

Political analysis of American foreign policy with emphasis on foreign policy making in the nuclear age. (4 units)

326. Political Parties and Interest Groups

Organization, objectives and activities of political parties and political interest groups and their functions in modern political systems. (4 units)

328. Judicial Process

Process of judicial decision-making with emphasis on factors influencing that process and concepts of judicial roles. (4 units)

330. State and Local Politics

Comparison of state and local political systems within the American Federal System. This course meets the state code requirement in state and local government. (4 units)

332. California Government

The California Constitution, government and political institutions. This course is specifically designed to meet the state code requirement in state and local government. (2 units)

340. Sex and Politics

Emphasis will be on sex roles in traditional and modern political systems, sex stereotypes in politics; effects of changing technology on conventional male and female roles; dynamics of change affecting the woman's place in the political world. (4 units)

342. The Politics of Environment

Environmental problems in their political context, including air, water, thermal and noise pollution, solid waste, population growth, resource management, and the political costs and benefits of environmental protection. (4 units)

352. Minority Politics

Minority groups in the American political system. (4 units)

380. Introduction to Public Administration

An introduction to the purposes, methods and characteristics of public management, including organization of public services, roles and relationships of public administrators, accountability and the achievement of public goals. (Also offered as Public Administration 380. Students may not receive credit for both.) (4 units)

399. Community Service Project

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of 4 units. No more than four units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: a project proposal must be approved by the department in advance of enrollment.* (Credit to be arranged: 1 or 2 units)

400. International Politics

Selected theories and evolving patterns of international politics as developed within the nation-state system. (4 units)

410. American Constitutional Law

Principles of the American Constitution as announced by the Supreme Court in selected cases. Judicial review, separation of powers, presidential power, federalism and commerce are included. This course meets the state code requirement in the U.S. Constitution. (4 units)

411. The Bill of Rights

Limitation on federal and state power arising out of the provisions of the first eight and the 14th Amendments to the Constitution. Modern developments are stressed. This course meets the state code requirement in the U.S. Constitution. (4 units)

428. Formulation of Public Policy

Basic approaches to public policy analysis, emphasizing interaction between substance and process in policy development. (4 units)

431. The American Presidency

Office and institution of the presidency of the United States. (4 units)

440. Voting Behavior

Factors related to voting behavior and other forms of political involvement, including analysis and interpretation of electoral decisions. (4 units)

450. Political Socialization

Application of political theory and research to the political education and socialization of children. Major attention devoted to the problems of children's political orientations, their sources and formation. (4 units)

480. International Relations in the Pacific Basin

Examines foreign policies of countries in selected regions of the Pacific Basin, such as East Asia, Southeast Asia, Oceania, the Philippines, Japan, Korea, Singapore, Indonesia. May be repeated twice as topics change.

- A. Regional Affairs (4 units)
- B. East Asia (4 units)
- C. Southeast Asia (4 units)
- D. Oceania (4 units)
- E. Philippines (4 units)
- F. Japan (4 units)
- G. Korea (4 units)
- H. Singapore (4 units)
- J. Indonesia (4 units)

481. Contemporary African Politics

The politics and governments of African states since independence. The course shall examine key issues in colonial rule in Africa, struggle for African independence, nationalism and the problems of self-government. Course may be repeated twice as topics change.

- A. Regional Affairs (4 units)
- B. Francophone Africa (4 units)
- C. North Africa (4 units)
- D. Southern Africa (4 units)
- E. West Africa (4 units)
- F. East Africa (4 units)
- G. Horn of Africa (4 units)
- H. Lusophone Africa (4 units)
- I. South Africa (4 units)

484. National Security Policy

Introduction to concepts and principles of national security policy through an examination of topics in international relations, foreign policy, arms control, strategic thought and alliance strategy. (4 units)

500. International Law

Historical basis and present trends in the development of international law. (4 units)

510. International Organization

History, structure and dynamics of the United Nations and other multi-national organizations. (4 units)

530. Studies in Political Theory

Concentrated study of one political theorist or one subject in political theory. May be repeated for credit as topics change. (4 units)

535. Seminar in Constitutional Law

Intensive study in one or more aspects of constitutional law. *Prerequisite: one of the following: Political Science 328, 410, 411, History 540 or consent of instructor.* (4 units)

560. Intergovernmental Relations

Administrative and political dynamics of relationships among national, state and local units of government. (4 units)

575. Internship in Political Science

Supervised work and study in public and private organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and department.* (Credit to be arranged: 2 to 4 units)

590. Seminar in International Relations

Intensive study of some phase of foreign policy-making or international relations to be developed by instructor with class. May be repeated for credit, with consent of instructor. (4 units)

592. Seminar in Government

An intensive study of some phase of government to be developed by instructor with class. May be repeated for credit, with the consent of instructor. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of eight units in Political Science 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 4 units)

597. Senior Honors Thesis

In-depth research culminating in a written thesis. Written proposals will be invited from seniors with a 3.5 GPA in all political science courses. Enrollment is limited to those students whose proposals are approved by the Political Science Honors Thesis Committee. (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Arms Control and National Security Policy

Examination of the theoretical literature on post World War II arms control concepts, doctrines and objectives in relation to national security policy. *Prerequisite: Political Science 484 or equivalent.* (4 units)

601. Strategic Systems and Strategic Thought

Evolution of strategic thought, policy, doctrine and force structure relative to national security objectives.

Prerequisite: Political Science 484 or equivalent. (4 units)

602. Alliance Strategy and Regional Systems

Key defense-related political and military problems confronting NATO, the Warsaw Pact and other international mutual security systems. *Prerequisite: Political Science 484 or equivalent.* (4 units)

604. Seminar in International Law

Survey of the literature and a study of the Law of the Sea, Aerospace Law, and International Regulation of the use of Force. (4 units)

605. Topics in Strategy

Intensive study of a specific phase or area of defense strategy developed by the instructor. May be repeated once for credit, as topics change, with consent of student's advisor. (4 units)

610. Proseminar in Political Science

Survey of the concepts and ideas that political scientists study, how they approach the study of political phenomena, and what methods they employ in their analysis. The seminar will include discussion of the relationships of the discipline to other social science disciplines and the unique contributions political science has made to knowledge in general and in the social sciences. *Prerequisite: consent of instructor.* (4 units)

PSYCHOLOGY

Department of Psychology

Physical Sciences Building, Room 219
880-5570

Bachelor of Arts

Psychology

Minor

Psychology

Master of Arts

Psychology

(Degree requirements can be found on Page 386.)

Master of Science

Psychology

(Degree requirements can be found on Page 388.)

The general objectives of the Bachelor of Arts in Psychology are to present the scientific and professional aspects of psychology to the undergraduate majoring in this field and to provide service courses as electives for students throughout the university. The department also offers course work leading to the Master of Arts or the Master of Science in Psychology. Students intending to enroll in these programs or another graduate school will find that the undergraduate program provides an excellent base for entry into graduate training. Other majors may plan a paraprofessional career in counseling or related fields where graduate training may not be necessary.

Courses offered by the department range from the basic scientific courses such as experimental psychology, learning and perception to such applied courses as counseling and behavior modification. Laboratory and training facilities complement a wide variety of courses.

B.A. IN PSYCHOLOGY

Requirements (60-61 units)

Requirements for the B.A. in Psychology:

1. Psyc 100. Introduction to Psychology (4)
2. Psyc 210. Psychological Statistics (5)
or
SSci 215. Statistics for the Social Sciences (4)
3. Psyc 311. Introduction to Experimental Psychology (6)
4. *Six units chosen from:*
Psyc 431. Experimental Psychology: Developmental (6)

- Psyc 433. Experimental Psychology: Physiological (6)
- Psyc 434. Experimental Psychology: Social (6)
- Psyc 435. Experimental Psychology: Personality (6)
- Psyc 436. Experimental Psychology: Learning and Motivation (6)
- Psyc 437. Experimental Psychology: Cognition and Perception (6)
- Psyc 438. Experimental Psychology: Industrial and Organizational (6)
5. *Eight units in Fields of Psychology chosen from:*
Psyc 201. Developmental Psychology (4)
Psyc 382. Psychology of Social Behavior (4)
Psyc 385. Personality (4)
Psyc 390. Abnormal Psychology (4)
6. *Eight units in Basic Processes chosen from:*
Psyc 357. History and Systems of Psychology (4)
Psyc 360. Cognitive Psychology (4)
Psyc 362. Learning and Motivation (4)
Psyc 363. Biological Psychology (4)
Psyc 364. Perception (4)
7. *Four units in Applications chosen from:*
Psyc 315. Communication Processes (4)
Psyc 318. Health Psychology (4)
Psyc 351. Behavior Modification: Principles and Applications (4)
Psyc 366. Computer Applications in Psychology (4)
Psyc 377. Tests and Measurements (4)
Psyc 387. Community Psychology (4)
Psyc 575. Internship in Psychology (4)
8. Twenty units in upper-division psychology electives. (Psychology 201 may be used to satisfy four of these additional twenty units but does not satisfy the university's upper-division unit requirement.)

Students intending to apply to doctoral programs in psychology are encouraged to take the following courses:

- Psychology 357. History and Systems of Psychology
- Psychology 595. Independent Study

Students interested in other educational and career goals have the opportunity to either diversify or concentrate their studies according to individualized plans developed in consultation with a departmental advisor.

MINOR IN PSYCHOLOGY

Requirements (32 units)

Requirements for a minor in Psychology:

1. Psyc 100. Introduction to Psychology (4)
2. *Four units in Fields of Psychology chosen from:*

- Psyc 201. Developmental Psychology (4)
 Psyc 382. Psychology of Social Behavior (4)
 Psyc 385. Personality (4)
 Psyc 390. Abnormal Psychology (4)
3. *Four units in Basic Processes chosen from:*
 Psyc 357. History and Systems of Psychology (4)
 Psyc 360. Cognitive Psychology (4)
 Psyc 362. Learning and Motivation (4)
 Psyc 363. Biological Psychology (4)
 Psyc 364. Perception (4)
4. *Four units in Applications chosen from:*
 Psyc 315. Communication Processes (4)
 Psyc 318. Health Psychology (4)
 Psyc 351. Behavior Modification: Principles and Applications (4)
 Psyc 366. Computer Applications in Psychology (4)
 Psyc 377. Tests and Measurements (4)
 Psyc 387. Community Psychology (4)
 Psyc 575. Internship in Psychology (4)
5. Sixteen units in upper-division psychology electives are required. (Psychology 201 may be used to satisfy four of these additional sixteen units but does not satisfy the university's upper-division unit requirement.)

DEPARTMENTAL HONORS

Students majoring in psychology are eligible to receive honors in psychology at graduation if the following conditions are met:

- At least one-half of the course work required by the major is completed at this university;
- At least 3.5 grade-point average in the major;
- An overall grade-point average of 3.25 or better;
- Completion of the three-quarter Honors Program with a grade of "B" or better each quarter:
 Psychology 597. Honors Seminar
 Psychology 598A. Honors Project
 Psychology 598B. Honors Project

Students interested in this recognition must file a formal application for enrollment in the Psychology Honors Program at the end of their junior year.

COURSE OFFERINGS IN PSYCHOLOGY (Psyc)

Lower Division

100. Introduction to Psychology

A survey of the field of modern psychology. (4 units)

105. Critical Thinking Through Problems Analysis

Development of basic skills in critical thinking including identifying and understanding common fallacies, recognizing techniques of persuasion and propaganda, problem solving strategies, and applying skills of critical thinking to the complex issues of everyday life. (4 units)

115. Personal and Social Adjustment

Application of psychological principles to predictable challenges and problems over the life span. Explores opportunities for adjustment and growth in a variety of circumstances, such as family and college life. May not be counted toward fulfillment of requirements in the psychology major. May not be taken for credit by students who have received credit for Psychology 110. (2 units)

120. Career Development

Examination of the world of work and individual self-assessments, including exploration of career aspirations and goals. (2 units)

201. Developmental Psychology

Introduction to the psychological development of the person from the prenatal period through old age. *Prerequisite: Psychology 100.* (4 units)

210. Psychological Statistics

Introduction to statistical reasoning and application of basic statistical procedures in psychology. Includes both descriptive and inferential statistics with emphasis on parametric techniques. Credit may not be received for more than one of the following courses: Management Science 210, Psychology 210, or Social Sciences 215. Four hours lecture and three hours of laboratory. (5 units)

270. Infant and Toddler Development

Prenatal, neonatal, infant, and toddler development through age 2. May not be taken for credit by students who have received credit for Psychology 325. *Prerequisite: Psychology 100.* (4 units)

280. Early Childhood Development

Physical, social, emotional, and intellectual development of the young child from ages 2 to 5. Laboratory involves observation of young children. Four hours lecture and three hours laboratory. (Also offered as Human Development 280. Students may not receive credit for both.) May not be taken for credit by students who have received credit for Psychology 325. *Prerequisite: Psychology 100.* (5 units)

Upper Division

301. Psychology of Human Sexuality

Theory and empirical findings from the areas of social, developmental, physiological, and clinical psychology as they apply to human sexual behavior. (4 units)

302. Management and Organizational Behavior

Introduction to management as it affects operations and the behavior of people in relation to the functional fields of administration. Selected behavioral concepts analyzed with respect to applications in management. (Also offered as Management 302. Students may not receive credit for both.) (4 units)

303. Parenting and Family Relations

Effects of parenting and intra-family relations on child and life-span psychological development. *Prerequisites: Psychology 100 and 201 or equivalent.* (4 units)

305. Psycholinguistics

An introduction to theory and research on the psychological study of language, first language acquisition, and the relation of language to thought and culture. *Prerequisite: Psychology 100.* (4 units)

311. Introduction to Experimental Psychology

Design and execution of psychological research. Four hours lecture and six hours laboratory. *Prerequisites: Psychology 100; and Psychology 210 or Social Sciences 215.* (6 units)

315. Communication Processes

Introduction to the nature of the helping process with emphasis on strategies of behavior change, interpersonal communication and basic helping skills. Three hours lecture and two hours laboratory. *Prerequisite: Psychology 100.* (4 units)

318. Health Psychology

Examination of psychological aspects of health related behaviors with emphasis on the effects of interpersonal and social psychological factors on physical health and effective medical care. *Prerequisite: Psychology 100.* (4 units)

320. Psychology of Middle Childhood

Theories and their applications to physical, cognitive, social and emotional development during the middle childhood years. A field based component will be required. (4 units)

328. Psychology of Adolescent Development

Theory and empirical literature concerning the physical, cognitive, social, and emotional changes from puberty to adulthood. A field based component will be required. (4 units)

329. Psychology of Adulthood and Aging

Psychological processes of development during the adult years. *Prerequisites: Psychology 100 and 201, or consent of instructor.* (4 units)

331. The Psychology of Women

A critical study of theory and data on the psychological development of females; their attitudes, behaviors, psychopathologies, abilities and self-images. *Prerequisite: Psychology 100.* (4 units)

332. Biofeedback

A survey of the biofeedback literature with emphasis on research findings, clinical applications and theory underlying voluntary control of brainwaves, muscle activity, heart rate and other bodily responses. *Prerequisite: Psychology 100 or consent of instructor.* (4 units)

333. Drugs and Behavior

Analysis of drugs from psychological, behavioral and physiological viewpoints. Topics include drug classification, altered states of consciousness, addiction, chemical nature and treatment of mental illness. *Prerequisite: Psychology 100 or consent of instructor.* (4 units)

340. Prejudice, Race, and Racism

Psychological and sociological theories and research on prejudice and racism in the U.S. and other countries, emphasizing the development and change of racial attitudes. (4 units)

345. Cross-Cultural Psychology

Cross-cultural psychology focusing on cultural variability in basic psychological processes and the cultural limits of traditional psychological theories. (4 units)

349. The Psychology of Gays and Lesbians

Analysis of theories and research on homosexuality, social reactions to homosexuality, and gay and lesbian cultural adaptations. (4 units)

350. Development of Exceptional Children

Review of theory, assessment, management, and rehabilitation of exceptional children. Includes developmental implications of specific medical conditions, retardation, and learning/cognitive dysfunctions. *Prerequisites: Human Development 280, Psychology 201, or 280.* (4 units)

351. Behavior Modification: Principles and Applications

Analysis of the theory, techniques and ethics of behavior modification. *Prerequisite: Psychology 100 or consent of instructor.* (4 units)

355. Industrial Psychology

Practices of modern industrial and personnel psychology. Includes selection, placement, training, motivation, job analysis, evaluation and human factors. *Prerequisite: Psychology 100 or consent of instructor.* (4 units)

357. History and Systems of Psychology

A historical framework for integrating basic orientations in contemporary psychology, including the development of the major schools of thought in psychology. May not be taken for credit by students who have received credit for Psychology 498. *Prerequisite: Psychology 100.* (4 units)

358. Cognitive Development

Survey of the major theories, issues and research in the development of perceptual and cognitive capacities from childhood through adulthood. *Prerequisites: Psychology 100 and 201.* (4 units)

360. Cognitive Psychology

Research and theories concerning human information processing; topics include sensory processes, attention, memory, language and other higher mental processes. *Prerequisite: Psychology 100.* (4 units)

362. Learning and Motivation

Survey of research and major theories in animal and human learning and motivation. Applications of learning and motivational principles. *Prerequisite: Psychology 100.* (4 units)

363. Biological Psychology

Overview of the biological basis of behavior with emphasis on the relationship between brain function and thought, emotion, perception, language, learning, memory and motivation. *Prerequisite: Psychology 100.* (4 units)

364. Perception

Selected topics in the field of perceptual processes. Includes review of contemporary theories and research. Class demonstrations and mini-projects. *Prerequisite: Psychology 100 or consent of instructor.* (4 units)

366. Computer Applications in Psychology

A survey of the uses of computers in psychology. Topics include the application of computers in psychological research and statistical data analysis. Three hours lecture and three hours laboratory. *Prerequisites: Psychology 100*

and one of the following: Management Science 210, Psychology 210, Social Sciences 215; or consent of instructor. (4 units)

370. Topics in Psychology

Selected psychology topics with specific focus within relatively narrow content areas. May be repeated for credit as topics change. *Prerequisite: Psychology 100.* (2 units)

375. Seminar in Psychology

Selected topics which encompass areas of current theoretical and/or research interest in psychology. May be repeated for credit as topics change. *Prerequisite: Psychology 100.* (4 units)

377. Tests and Measurements

Administration of psychological tests and scales; interpretation and use of the data which they yield. *Prerequisites: Psychology 100; and one of the following: Psychology 210 or Social Sciences 215.* (4 units)

382. Psychology of Social Behavior

Major concepts, issues and psychological research regarding social influence on individual behavior. *Prerequisite: Psychology 100.* (4 units)

384. Personality and Social Development

Development of personality, emotions and social behavior from childhood through adulthood. *Prerequisites: Psychology 100 and 201 or equivalents.* (4 units)

385. Personality

Survey of the major theories of personality. A self-paced version of this course (Psychology 385A) is also available. Students may not receive credit for both. *Prerequisite: Psychology 100 or consent of instructor.* (4 units)

387. Community Psychology

Comprehensive study of the discipline of community psychology which emphasizes the relationship of community resources to individual mental health needs. *Prerequisite: Psychology 100.* (4 units)

390. Abnormal Psychology

An introduction to psychopathology, emphasizing the major interpretations and treatments of emotional and behavioral disorders. *Prerequisite: Psychology 100.* (4 units)

391. Psychopathology of Childhood

Psychological and emotional disorders of children with special emphasis on diagnostic and clinical treatment. *Prerequisites: Psychology 100 and 201.* (4 units)

395. Psychology of Consciousness

Human consciousness from the perspectives of the experiential, behavioral and physiological psychology literatures. Includes survey of research and theory on topics such as waking consciousness, dreams, meditation and altered states of consciousness. *Prerequisite: Psychology 100.* (4 units)

400. Child Assessment

Theory and procedures for assessing cognitive, social, and motor abilities in infants and children. Course includes a practicum in administering and interpreting selected developmental screening tests. *Prerequisites: Human Development 280, Psychology 201, or 280; and Psychology 210 (or equivalent).* (5 units)

411. Psychology of Mass Media Communication

Influence of mass media (radio, movies, television) on the individual. Developmental aspects will be stressed along with attention to applications in everyday life. Communications research will be highlighted. *Prerequisite: Psychology 311 or Sociology 308.* (4 units)

431. Experimental Psychology: Developmental

Selected research areas in the fields of child and life-span developmental psychology. Includes review of current literature and experimental techniques in developmental research. Four hours lecture and six hours laboratory. *Prerequisites: Psychology 201; Psychology 311 or consent of instructor.* (6 units)

433. Experimental Psychology: Physiological

Introduction to the neural and endocrine processes underlying brain function and behavior. Four hours lecture and six hours laboratory. *Prerequisites: Psychology 311; Psychology 363 or consent of instructor.* (6 units)

434. Experimental Psychology: Social

Methods, theories and empirical results of experimental social psychology in selected areas such as group dynamics, social perception, communication and attitudes. Four hours lecture and six hours laboratory. *Prerequisites: Psychology 311 and 382.* (6 units)

435. Experimental Psychology: Personality

Empirical study of personality theories and the relationship of personality to behavior. Four hours lecture and six hours laboratory. *Prerequisites: Psychology 311, 377 and 385.* (6 units)

436. Experimental Psychology: Learning and Motivation

Selected theories and research in areas of learning and motivation. Includes literature review and experimental analysis. Four hours lecture and six hours laboratory. *Prerequisites: Psychology 311 and 362.* (6 units)

437. Experimental Psychology: Cognition and Perception

Empirical study of human information processing, memory, thought and perceptual processes. Four hours lecture and six hours laboratory. *Prerequisites: Psychology 311 and either Psychology 360 or 364.* (6 units)

438. Experimental Psychology: Industrial and Organizational

Methods and empirical study of industrial-organizational psychology, in selected areas such as work motivation, performance evaluation, training techniques, and selection approaches. Four hours lecture and six hours laboratory. *Prerequisites: Psychology 311, 377 and one of the following: Management 302, Psychology 302, Psychology 355.* (6 units)

490. Counseling Psychology

Basic theories and procedures of psychological counseling. *Prerequisites: Psychology 315 and 385.* (4 units)

569. Advanced Methods in Psychological Research

Those aspects of philosophy of science and methods of inquiry as applied to procedures for obtaining and evaluating data as well as issues in experimental design. *Prerequisites: one of the following: Psychology 210, Social Sciences 215; Psychology 311; and consent of department.* (4 units)

570. Advanced Psychological Statistics

Review of concepts of statistical inference. Applications of statistical techniques to the design and interpretation of experimental research. Four hours lecture and three hours of laboratory. *Prerequisites: Psychology 210 or Social Sciences 215; and consent of department.* (5 units)

571. Applied Problem Analysis

Review and use of methodological and statistical strategies in the solution of applied research problems. Statistical computer packages will be used for data analysis. *Prerequisites: Psychology 569 and Psychology 570 or equivalents; and consent of department.* (4 units)

575. Internship in Psychology

Supervised work and study in private or public organizations. May be repeated once for credit. (Only four units of Psychology 575 may be applied to upper-division elective requirements in the psychology major.) Graded credit/no credit. *Prerequisites: consent of instructor and department.* (4 units)

578. Advanced Topics in Psychology

Selected advanced psychology topics with specific focus within relatively narrow content areas. May be repeated for credit as topics change. *Prerequisites: upper-division or graduate standing and consent of department.* (2 units)

580. Advanced Seminar in Psychology

Selected advanced topics which encompass areas of current theoretical and/or research interest in psychology. May be repeated for credit as topics change. *Prerequisites: upper-division or graduate standing and consent of department.* (4 units)

582. Advanced Seminar in Developmental Psychology

Selected current issues and advanced topics of theoretical, research or applied interest in developmental psychology. May be repeated for credit as topics change. *Prerequisites: upper-division or graduate standing and consent of department.* (4 units)

583. Theories of Counseling and Psychotherapy

Comparative analysis of major theories related to current practice of counseling and psychotherapy. *Prerequisites: classified standing and consent of department.* (4 units)

591. Human Sexuality

Study of human sexuality with emphasis on both healthy sexuality and sexual dysfunction. *Prerequisites: classified standing and consent of department.* (2 units)

595. Independent Study

Special topics involving literature and/or experimental effort. A total of eight units of Psychology 595 may be applied toward graduation, of which a maximum of four units can be applied toward the upper-division requirements in the psychology major. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 4 units)

597. Honors Seminar

Provides an opportunity for students to develop an independent project under faculty supervision. Students will meet as a class to discuss their projects, as well as various advanced topics. Enrollment is limited to students whose formal application for departmental honors is approved. *Prerequisites: Psychology 311 and consent of department.* (4 units)

598. Honors Project

Provides an opportunity for students to conduct an independent project under faculty supervision. Enrollment is limited to students whose formal application for departmental honors is approved. May not be used to satisfy the requirements of the psychology major.

A. *Prerequisites: Psychology 597 and consent of department.* (2 units)

B. *Prerequisites: Psychology 598A and consent of department.* (2 units)

PUBLIC ADMINISTRATION

Department of Public Administration

*Administration Building, Room 138
880-5758*

The university offers a Masters in Public Administration. In addition, a concentration in public administration is available within the Bachelor of Arts in Administration. A Certificate in Local Government Planning is also available. The details of these programs are listed under Administration (Page 79). The Master of Public Administration can be found on page 392. The courses listed below are offered in support of these programs. Further information is available from the Department of Public Administration.

COURSE OFFERINGS IN PUBLIC ADMINISTRATION (PA)

Upper Division

307. Public Relations in the Public Sector

Public relations as an inherent aspect of management in the public sector. Problems and techniques of administration of programs to manage and improve public relations. (4 units)

315. Government-Business Relations

Study of public-private sector interactions and the respective roles of government and business in these relationships. Government's evolving role in economic life; the context of government-business relations; the maintenance and moderation of competition; specific problems in government-business interactions. (4 units)

380. Introduction to Public Administration

An introduction to the purposes, methods and characteristics of public management, including organization of public services, roles and relationships of public administrators, accountability and the achievement of public goals. (Also offered as Political Science 380. Students may not receive credit for both.) (4 units)

462. Public Personnel Administration

Definition, description and evaluation of government personnel systems; classification, compensation, recruitment, examination, training, working conditions, incentives, performance ratings, public employee organizations and organizational development in the public service. May not be taken for credit by students who have received credit for Public Administration 562. (4 units)

463. Governmental Budgeting

Role of the budgetary process in government management, the public sector environment of budgeting, budget formulation and administration. May not be taken for credit by students who have received credit for Public Administration 563. (4 units)

472. Administrative Law

Processes of administrative rule making, regulation, adjudication and appeal procedures; duties and liabilities of public officials, trends in regulation, overview of regulatory agencies. (4 units)

480. Organizational Problems in Public Administration

Administrative and management problems as they exist within public organizations and agencies. (4 units)

514. Management of Private Nonprofit Organizations

Analyzes the specific problems of management in private nonprofit organizations, including planning, personnel, financial and policy issues. (4 units)

516. Public and Non-Profit Project Management

Aspects of project management, including needs and feasibility assessment, project design, proposal writing, contract negotiation, funding, developing project teams, managing team conflict, monitoring, and evaluation. (4 units)

521. Principles of Planning

Introduction to local and regional community planning; includes methods of adoption and interorganizational relationships. (4 units)

557. Public Sector Labor Relations

Analyzes issues created by collective bargaining and unionism in public sectors. Examples: selection of bargaining agents, bargaining scope and obligation, impasse resolution and grievance procedure. (4 units)

564. Local Public Administration

Administrative characteristics and problems of public management in the urban area, including city, county, school and special district organization and functions. (4 units)

568. Accounting for Government and Not-for-Profit Organizations

Covers principles and practices of government fund accounting. Topics include governmental accounting concepts, types and structure of funds and accounts, application of generally accepted accounting principles to government and not-for-profit entities, presentation and uses of financial statements. (Also offered as Accounting 568. Students may not receive credit for both.) *Prerequisite: Accounting 211 or 311.* (4 units)

575. Internship in Public Administration

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

590. Seminar in Public Administration

An intensive study of some phase of public administration to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units.)



SOCIAL SCIENCES

School of Social and Behavioral Sciences

Faculty Office Building, Room 175
880-5500

Bachelor of Arts

Social Sciences - Track A
Social Sciences - Track B

Teaching Credential Program

Single Subject

The social sciences major has two tracks. Track A is designed for students who intend to use their social sciences major to waive the required state examination for the single subject teaching credential. Track B is designed for those students who wish to blend any three of the disciplines represented in the School of Social and Behavioral Sciences.

B.A. IN SOCIAL SCIENCES (TRACK A)

Requirements (90 units)

Requirements for the B.A. in Social Sciences - Track A:

Lower-division requirements (28 units)

1. Econ 200. Principles of Microeconomics (4)
2. Econ 202. Principles of Macroeconomics (4)
3. Geog 100. Introduction to Human Geography (4)
or
SSci 165. Regions and Peoples of the World (4)
4. PSci 203. American Government (4)
5. *Four units chosen from:*
 - Anth 100. Introduction to Anthropology: Human Evolution (4)
 - Anth 102. Introduction to Anthropology: Culture and Society (4)
 - Psyc 100. Introduction to Psychology (4)
 - Soc 100. The Study of Society (4)
 - SSci 160. Contemporary Civilization: Values and Behavior (4)
6. SSci 142. World Civilizations II, The Civilizations of the East and West (4)
or
SSci 144. World Civilizations III, The Expansion of Europe (4)
7. SSci 146. American Civilization (4)

Upper-division requirements (62 units)

1. Hist 370B. History of California: California 1890-Present (2)
- or

- Hist 370BA History of California: California 1890-Present (Self-Paced) (2)
2. PSci 410. American Constitutional Law (4)
3. PSci 411. The Bill of Rights (4)
4. *Twelve units chosen from:*
 - Hist 334. Black History II: The American Experience (4)
 - Hist 350. The American Colonies, 1607-1783 (4)
 - Hist 351. The Evolution of American Democracy, 1783-1840 (4)
 - Hist 354. Civil War and Reconstruction (4)
 - Hist 356. The United States, 1877-1917 (4)
 - Hist 357. The United States, 1917-1945 (4)
 - Hist 359. The United States Since 1945 (4)
 - Hist 391. Chicano History (4)
 - Hist 421. Economic History of the United States (4)
 - Hist 422. 20th Century Americans (4)
 - Hist 513. Women in U.S. History (4)
 - Hist 540. Constitutional History of the United States (4)
 - Hist 556. Foreign Relations of the United States (4)
 - Hist 560. History of the American West (4)
 - Hist 565. Ethnic Minorities in American History (4)
5. *Twelve units chosen from:*
 - Hist 300. Early Modern Europe, The Renaissance to 1815 (4)
 - Hist 301. Modern Europe, 1815 to the Present (4)
 - Hist 322. The Classical World (4)
 - Hist 331. Black History I: The African Experience (4)
 - Hist 380. History of World Religions (4)
 - Hist 382. History of the Middle East (4)
 - Hist 390. History of Mexico (4)
 - Hist 402. Renaissance and Reformation (4)
 - Hist 403. The Age of Absolutism and Enlightenment (4)
 - Hist 408. The Development of 20th Century Europe, 1890-1945 (4)
 - Hist 430. China 1895-Present (4)
 - Hist 440. Japan 1868-Present (4)
 - Hist 469. Colonial Latin America (4)
 - Hist 470. Modern Latin America (4)
 - Hist 500. Tudor and Stuart England (4)
 - Hist 535. Studies in European National History (4)
 - Hist 589. Revolutions in History (4)
6. *Four units chosen from:*
 - Geog 302. Geography of California (4)
 - Geog 309. Area Study: Soviet Union (4)
 - Geog 321. Area Study: Latin America (4)
 - Geog 380. Population Geography (4)
 - Geog 420. Geography of Economic Activity (4)
 - Geog 440. Understanding the City (4)

7. *Four units chosen from:*
 Geog 306. Remote Sensing of Environment (4)
 Geog 350. Conservation and Natural Resources (4)
 Geog 360. Climate and Vegetation (4)
 Geog 460. Biogeography (4)
8. *Four units chosen from:*
 PSci 320. The Legislative Process (4)
 PSci 326. Political Parties and Interest Groups (4)
 PSci 330. State and Local Politics (4)
 PSci 428. Formulation of Public Policy (4)
 PSci 431. The American Presidency (4)
9. *Four units chosen from:*
 Econ 370. The American Economy (4)
 Econ 421. Economic History of the United States (4)
10. Twelve units of upper-division course work, to be selected from a list of appropriate courses stipulated by the Departments of Anthropology, Criminal Justice, Psychology, and Sociology. This list will be on file in the School of Social and Behavioral Sciences Office and in the various departmental offices in the school. All twelve units need not be taken from the offerings of a single department.

B.A. IN SOCIAL SCIENCES (TRACK B)

Requirements (60 to 63 units)

A minimum of 28 to 30 units (primary) in one of the following fields, plus 16 to 17 units each (secondary) in two others:

- A. Anthropology
- B. Criminal justice
- C. Economics
- D. Geography
- E. History
- F. Political Science
- G. Psychology
- H. Sociology

Of the 28 to 30 units comprising the primary field, no more than twelve units may be from the lower-division courses. In each secondary field, no more than eight units may be from lower division courses.

Within the social sciences major, cross-listed courses cannot be counted both in a primary field and in a secondary field.

Those courses which will be required and allowed for use in this track, both in the primary and secondary fields, are listed below. It is the responsibility of both the student and the student's advisor to construct a program in line with these requirements. Once agreed to, the program is filed in the student's permanent folder in the Admissions Office but is subject to revision by mutual consent.

No more than 32 units may be selected from any one department. No more than one 12-unit special comprehensive examination may be applied to any field, either primary or secondary, and not more than two of these examinations may be used to meet the requirements of this major.

An ethnic studies primary or secondary field may be obtained by taking Social Sciences 155 (Minority Groups in America) and 56 to 59 additional units of upper-division course work from within the School of Social and Behavioral Sciences as stated below. No course may be used in a secondary field which has been used in any other part of the social sciences major.

A special topics primary or secondary field may be contracted with the dean of the School of Social and Behavioral Sciences. Possible topics that may be arranged under this option include, but are not restricted to, women's studies and Latin American studies. For more information concerning this option, contact the dean of the School of Social and Behavioral Sciences.

Requirements for the B.A. in Social Sciences - Track B:

Anthropology (Primary Field 28 units, Secondary Field 16 units)

Primary Field (28 units):

- A. Anth 100. Introduction to Anthropology: Human Evolution (4)
- B. Anth 102. Introduction to Anthropology: Culture and Society (4)
- C. *A minimum of twelve units chosen from:*
 1. Anth 300. Archaeology (4)
 2. Anth 302. African Archaeology (4)
 3. Anth 303. Prehistory of the Middle East and Europe (4)
 4. Anth 305. North American Prehistory (4)
 5. Anth 306. Aztecs, Maya and Their Predecessors (4)
 6. Anth 307. Incas and Their Predecessors (4)
 7. Anth 312. Historical Archaeology (4)
 8. Anth 315. Archaeology of the Southwest and California (4)
 9. Anth 319. Experimental Archaeology and Ethnoarchaeology (5)
 10. Anth 320. Archaeological Survey and Excavation (5)
 11. Anth 321. Archaeological Laboratory Analysis (5)
 12. Anth 323. Native North American Art (4)
or
Art 323. Native North American Art (4)
 13. Anth 324. Pre-Columbian Art (4)
or
Art 324. Pre-Columbian Art (4)
 14. Anth 325. Human Variation and the Concept of Race (4)
 15. Anth 326. Human Origins (4)

16. Anth 327. Primate Evolution and Ecology (4)
 17. Anth 330. Cross-Cultural Child-Rearing Practices (4)
 18. Anth 331. Anthropology of Human Development (4)
 19. Anth 333. Sex and Gender in Cross-Cultural Perspective (4)
 20. Anth 335. Cross-Cultural Perspectives on Crime and Deviance (4)
 or
 Anth 335A. Cross-Cultural Perspectives on Crime and Deviance (Self-paced) (4)
 21. Anth 351. Indians of North America (4)
 22. Anth 352. Indians of the Southwest (4)
 23. Anth 354. Cultures of Mexico and Central America (4)
 24. Anth 356. Cultures of South America (4)
 25. Anth 357. African Societies (4)
 26. Anth 358. Peoples of the Middle East (4)
 27. Anth 360. Peoples of Australia (4)
 28. Anth 361. Peoples of Micronesia, Melanesia and Polynesia (4)
 29. Anth 375. Museum Methods (4)
 30. Anth 390. Selected Topics in Anthropology (4)
 31. Anth 391. Selected Topics in Anthropology (2)

D. *Eight units chosen from:*

- Anth 460. Language and Culture (4)
 Anth 466. Anthropology of Health, Illness and Healing (4)
 Anth 470. Culture Change and Dynamics (4)
 Anth 475. Cultural Ecology (4)
 Anth 480. Magic, Religion and Science (4)
 Anth 485. Applied Anthropology and Social Policy (4)
 Anth 490. Systems of Social Organization (4)
 Anth 492. Economic Anthropology (4)
 Anth 493. Urban Anthropology (4)
 Anth 500. Great Ideas in Anthropology (4)
 Anth 575. Internship in Anthropology (2-5)
 Anth 585. Fieldwork in Cultural Anthropology (4)
 Anth 595. Independent Study (2-5)

Secondary Field (16 units):

- A. Anth 100. Introduction to Anthropology: Human Evolution (4)
 or
 Anth 102. Introduction to Anthropology: Culture and Society (4)
 B. *A minimum of eight units chosen from:*
 1. Anth 300. Archaeology (4)
 2. Anth 302. African Archaeology (4)
 3. Anth 303. Prehistory of the Middle East and Europe (4)
 4. Anth 305. North American Prehistory (4)
 5. Anth 306. Aztecs, Maya and Their Predecessors (4)

6. Anth 307. Incas and Their Predecessors (4)
 7. Anth 312. Historical Archaeology (4)
 8. Anth 315. Archaeology of the Southwest and California (4)
 9. Anth 319. Experimental Archaeology and Ethnoarchaeology (5)
 10. Anth 320. Archaeological Survey and Excavation (5)
 11. Anth 321. Archaeological Laboratory Analysis (5)
 12. Anth 323. Native North American Art (4)
 or
 Art 323. Native North American Art (4)
 13. Anth 324. Pre-Columbian Art (4)
 or
 Art 324. Pre-Columbian Art (4)
 14. Anth 325. Human Variation and the Concept of Race (4)
 15. Anth 326. Human Origins (4)
 16. Anth 327. Primate Evolution and Ecology (4)
 17. Anth 330. Cross-Cultural Child-Rearing Practices (4)
 18. Anth 331. Anthropology of Human Development (4)
 19. Anth 333. Sex and Gender in Cross-Cultural Perspective (4)
 20. Anth 335. Cross-Cultural Perspectives on Crime and Deviance (4)
 or
 Anth 335A. Cross-Cultural Perspectives on Crime and Deviance (Self-paced) (4)
 21. Anth 351. Indians of North America (4)
 22. Anth 352. Indians of the Southwest (4)
 23. Anth 354. Cultures of Mexico and Central America (4)
 24. Anth 356. Cultures of South America (4)
 25. Anth 357. African Societies (4)
 26. Anth 358. Peoples of the Middle East (4)
 27. Anth 360. Peoples of Australia (4)
 28. Anth 361. Peoples of Micronesia, Melanesia and Polynesia (4)
 29. Anth 375. Museum Methods (4)
 30. Anth 390. Selected Topics in Anthropology (4)
 31. Anth 391. Selected Topics in Anthropology (2)

C. *Four units chosen from:*

- Anth 460. Language and Culture (4)
 Anth 466. Anthropology of Health, Illness and Healing (4)
 Anth 470. Culture Change and Dynamics (4)
 Anth 475. Cultural Ecology (4)
 Anth 480. Magic, Religion and Science (4)
 Anth 485. Applied Anthropology and Social Policy (4)
 Anth 490. Systems of Social Organization (4)
 Anth 492. Economic Anthropology (4)
 Anth 493. Urban Anthropology (4)

- Anth 500. Great Ideas in Anthropology (4)
 Anth 575. Internship in Anthropology (2-5)
 Anth 585. Fieldwork in Cultural Anthropology (4)
 Anth 595. Independent Study (2-5)

Criminal Justice (Primary Field 30 units, Secondary Field 16 units)

Primary Field (30 units):

- A. CJus 101. Introduction to Criminal Justice I (4)
 B. CJus 102. Introduction to Criminal Justice II (4)
 C. CJus 311. Research Methods in Criminal Justice (6)
 D. *Twelve units chosen from:*
 1. CJus 351. Theories of Crime and Delinquency (4)
 2. CJus 357. Law Enforcement (4)
 or
 CJus 357A. Law Enforcement (Self-paced) (4)
 3. CJus 358. Punishment and Corrections (4)
 4. CJus 359. Law and Society (4)
 E. *Four units chosen from:*
 CJus 103. Critical Issues in Criminal Justice (4)
 CJus 301. Police and Private Security Administration (4)
 CJus 302. Courts and Corrections Administration (4)
 CJus 450. White Collar Crime (4)
 CJus 575. Internship in Criminal Justice (4)

Secondary Field (16 units):

- A. CJus 101. Introduction to Criminal Justice I (4)
 B. CJus 102. Introduction to Criminal Justice II (4)
 C. *Eight units chosen from:*
 1. CJus 301. Police and Private Security Administration (4)
 2. CJus 302. Courts and Corrections Administration (4)
 3. CJus 357. Law Enforcement (4)
 or
 CJus 357A. Law Enforcement (Self-paced) (4)
 4. CJus 358. Punishment and Corrections (4)
 5. CJus 359. Law and Society (4)

Economics (Primary Field 28 units, Secondary Field 16 units)

Primary Field (28 units):

- A. Econ 200. Principles of Microeconomics (4)
 B. Econ 202. Principles of Macroeconomics (4)
 C. Econ 300. Intermediate Macroeconomics (4)
 D. Econ 302. Intermediate Microeconomics (4)

- E. Four units of 300-level economics course work.
 F. Eight units of 400- or 500-level economics course work.

Secondary Field (16 units):

- A. Econ 200. Principles of Microeconomics (4)
 B. Econ 202. Principles of Macroeconomics (4)
 C. Eight units of upper-division economics course work.

Geography (Primary Field 29 units, Secondary Field 16 to 17 units)

Primary Field (29 units):

- A. Geog 100. Introduction to Human Geography (4)
 B. Geog 103. Physical Geography (5)
 C. Geog 420. Geography of Economic Activity (4)
 D. Sixteen units of upper-division geography course work. However, no more than eight of these sixteen units of upper-division elective course work can be an area study.

Secondary Field (16 to 17 units):

- A. Geog 100. Introduction to Human Geography (4)
 or
 Geog 103. Physical Geography (5)
 B. Geog 420. Geography of Economic Activity (4)
 C. Eight units of upper-division geography course work. However, only four of these eight units of upper-division elective course work can be an area study.

History (Primary Field 28 units, Secondary Field 16 units)

Primary Field (28 units):

- A. Hist 200. United States History to 1877 (4)
 or
Eight units chosen from:
 Hist 350. The American Colonies 1607-1783 (4)
 Hist 351. The Evolution of American Democracy, 1783-1840 (4)
 Hist 354. Civil War and Reconstruction (4)
 B. Hist 201. United States History, 1877 to the Present (4)
 or
Eight units chosen from:
 Hist 356. The United States, 1877-1917 (4)
 Hist 357. The United States, 1917-1945 (4)
 Hist 359. The United States Since 1945 (4)
 C. Hist 300. Early Modern Europe, the Renaissance to 1815 (4)

or

Eight units as follows:

- Hist 402. Renaissance and Reformation (4)
 Hist 403. The Age of Absolutism and Enlightenment (4)

- D. Hist 301. Modern Europe, 1815 to the Present (4)
- or
- Eight units chosen from:*
- Hist 408. The Development of 20th Century Europe, 1890-1945 (4)
- Hist 503. Europe in the Nuclear Age (4)
- Hist 535. Studies in European National History (4)
- E. Twelve units of upper-division history course work.

Secondary Field (16 units):

Eight units of upper-division history course work and either Group 1 or 2 below:

Group 1:

- (a) Hist 200. United States History to 1877 (4)
- or
- Eight units chosen from:*
- Hist 350. The American Colonies 1607-1783 (4)
- Hist 351. The Evolution of American Democracy, 1783-1840 (4)
- Hist 354. Civil War and Reconstruction (4)
- (b) Hist 201. United States History, 1877 to the Present (4)
- or
- Eight units chosen from:*
- Hist 356. The United States, 1877-1917 (4)
- Hist 357. The United States, 1917-1945 (4)
- Hist 359. The United States Since 1945 (4)

Group 2:

- (a) Hist 300. Early Modern Europe, the Renaissance to 1815 (4)
- or
- Eight units as follows:*
- Hist 402. Renaissance and Reformation (4)
- Hist 403. The Age of Absolutism and Enlightenment (4)
- (b) Hist 301. Modern Europe, 1815 to the Present (4)
- or
- Eight units chosen from:*
- Hist 408. The Development of 20th Century Europe, 1890-1945 (4)
- Hist 503. Europe in the Nuclear Age (4)
- Hist 535. Studies in European National History (4)

Political Science (Primary Field 28 units, Secondary Field 16 units)

Primary Field (28 units):

- A. PSci 100. Introduction to Political Science (4)

- B. PSci 203. American Government (4)
- C. *Twenty units of upper-division course work with at least four units from each of the following five fields:*
- Four units chosen from American government and politics:*
 - PSci 320. The Legislative Process (4)
 - PSci 326. Political Parties and Interest Groups (4)
 - PSci 428. Formulation of Public Policy (4)
 - PSci 431. The American Presidency (4)
 - Four units chosen from comparative government:*
 - PSci 300. Western Political Systems (4)
 - PSci 304. Communist Political Systems (4)
 - PSci 306. Developing Political Systems (4)
 - Four units chosen from international relations:*
 - PSci 325. American Foreign Policy (4)
 - PSci 400. International Politics (4)
 - PSci 484. National Security Policy (4)
 - PSci 500. International Law (4)
 - PSci 510. International Organization (4)
 - Four units chosen from political theory:*
 - PSci 310. Classical Political Thought (4)
 - PSci 311. Foundations of Modern Political Thought (4)
 - PSci 313. Contemporary Political Thought (4)
 - Four units chosen from public law:*
 - PSci 328. Judicial Process (4)
 - PSci 410. American Constitutional Law (4)
 - PSci 411. The Bill of Rights (4)

Secondary Field (16 units):

- A. PSci 100. Introduction to Political Science (4)
- B. *Twelve units of upper-division course work, four units chosen from three of the five fields listed below:*
- American government and politics:*
 - PSci 320. The Legislative Process (4)
 - PSci 326. Political Parties and Interest Groups (4)
 - PSci 428. Formulation of Public Policy (4)
 - PSci 431. The American Presidency (4)
 - Comparative government:*
 - PSci 300. Western Political Systems (4)
 - PSci 304. Communist Political Systems (4)
 - PSci 306. Developing Political Systems (4)
 - International relations:*
 - PSci 325. American Foreign Policy (4)
 - PSci 400. International Politics (4)
 - PSci 484. National Security Policy (4)

- PSci 500. International Law (4)
 PSci 510. International Organization (4)
4. *Political theory:*
 PSci 310. Classical Political Thought (4)
 PSci 311. Foundations of Modern Political Thought (4)
 PSci 313. Contemporary Political Thought (4)
5. *Public law:*
 PSci 328. Judicial Process (4)
 PSci 410. American Constitutional Law (4)
 PSci 411. The Bill of Rights (4)

Psychology (Primary Field 29 units, Secondary Field 16 units)

Primary Field (29 units):

- A. Psyc 100. Introduction to Psychology (4)
 B. Psyc 210. Psychological Statistics (5)
 C. *Eight units chosen from:*
 Psyc 201. Developmental Psychology (4)
 Psyc 382. Psychology of Social Behavior (4)
 Psyc 385. Personality (4)
 Psyc 390. Abnormal Psychology (4)
 D. *Four units chosen from:*
 Psyc 360. Cognitive Psychology (4)
 Psyc 362. Learning and Motivation (4)
 Psyc 363. Biological Psychology (4)
 Psyc 364. Perception (4)
 E. *Four units chosen from:*
 Psyc 315. Communication Processes (4)
 Psyc 351. Behavior Modification: Principles and Applications (4)
 Psyc 377. Tests and Measurements (4)
 Psyc 387. Community Psychology (4)
 Psyc 575. Internship in Psychology (4)
 F. Four units of upper-division psychology electives.

Secondary Field (16 units):

- A. Psyc 100. Introduction to Psychology (4)
 B. *Four units chosen from:*
 Psyc 201. Developmental Psychology (4)
 Psyc 382. Psychology of Social Behavior (4)
 Psyc 385. Personality (4)
 Psyc 390. Abnormal Psychology (4)
 C. *Four units chosen from:*
 Psyc 360. Cognitive Psychology (4)
 Psyc 362. Learning and Motivation (4)
 Psyc 363. Biological Psychology (4)
 Psyc 364. Perception (4)
 D. *Four units chosen from:*
 Psyc 315. Communication Processes (4)
 Psyc 351. Behavior Modification: Principles and Applications (4)
 Psyc 377. Tests and Measurements (4)
 Psyc 387. Community Psychology (4)

Sociology (Primary Field 30 units, Secondary Field 16 units)

Primary Field (30 units):

- A. Soc 100. The Study of Society (4)
 B. Soc 308. Introduction to Sociological Research (6)
 C. *Four units chosen from:*
 Soc 310. History of Sociological Theory (4)
 Soc 312. Contemporary Sociological Theory (4)
 Soc 360. Social Psychology (4)
 D. Sixteen units of upper-division sociology electives.

Secondary Field (16 units):

- A. Soc 100. The Study of Society (4)
 B. *Four units chosen from:*
 Soc 310. History of Sociological Theory (4)
 Soc 312. Contemporary Sociological Theory (4)
 Soc 360. Social Psychology (4)
 C. Eight units of upper-division sociology electives.

TEACHING CREDENTIAL PROGRAM

Students wishing to be recommended for a single subject teaching credential in social sciences must complete Track A of the major as well as certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program or the specific requirements of the single subject waiver program see Page 147 or contact the School of Education Credentials Office.

COURSE OFFERINGS IN SOCIAL SCIENCES (SSci)

Many of the courses listed below are offered as part of the University's general education program. Some are offered in support of other degree programs.

Lower Division

140. World Civilizations I, The Rise of Civilization

Activities and achievements of humans through the rise and diffusion of civilizations in Eurasia, Africa, and the Americas to about the dawn of the Christian era. (4 units)

142. World Civilizations II, the Civilizations of the East and West

Major civilizations of the past, including the Graeco-Roman world, ancient India and China, the Byzantine and Arabic Empires, and Europe in the Middle Ages. (4 units)

144. World Civilizations III, the Expansion of Europe

Rise to dominance of the European states and their impact throughout the world, 1500 A.D. to the present. (4 units)

146. American Civilization

Historical development of the fundamental values of the American culture and the influences of these in selected areas of American life. This course meets the state code requirements in the U.S. Constitution and in U.S. history. (4 units)

155. Minority Groups in America

Black, Mexican-American and other minority groups as approached from the perspectives of history and the social sciences. (4 units)

160. Contemporary Civilization: Values and Behavior

Interpretation of contemporary society in the light of the knowledge and theories of sociology, anthropology and psychology. (4 units)

165. Regions and Peoples of the World

Survey of major regions of the world using general physical and cultural concepts to explain patterns and problems of human activities in relation to natural environments. (4 units)

215. Statistics for the Social Sciences

Introduction to statistical methods as applied to the social and behavioral sciences. Includes both descriptive and inferential statistics. A self-paced independent study course. Credit may not be received for more than one of the following courses: Management Science 210, Psychology 210, or Social Sciences 215. *Prerequisite: Mathematics 110 or equivalent competency.* (4 units)

Upper Division**300. Nonwestern World**

Historical, political, social, geographic and economic aspects of nonwestern societies. (4 units)

304. Contemporary Latin America

Social, economic and political conditions and institutions in contemporary Latin America. (4 units)

315. Cultural Adaptation: The Quest for Survival

An interdisciplinary inquiry into diverse cultural solutions to universal human problems. Topics include alternative cultural provisions for satisfying economic, social, political and religious needs. (4 units)

316. Race and Racism

An interdisciplinary and cross-cultural examination of the concepts of race, ethnic group, prejudice and racism which includes studies of changing prejudiced attitudes. (4 units)

321. Urbanization and the Urban Environment

Patterns and processes of urban growth. Major emphasis on reasons for growth of cities; economic, social, political and structural changes in urban areas which accompany urbanization; and a cross-cultural analysis of urban problems. (4 units)

325. Perspectives on Gender

This interdisciplinary course uses scientific, humanistic, and social science perspectives to foster an understanding of how gender roles in Western culture are established, maintained and changed. (Also offered as Humanities 325 and Natural Sciences 325. Students may receive credit for only one of these courses.) (4 units)

333. Sanity and Civilization

Effects of the social, political and economic institutions of past and contemporary civilizations on definitions of sanity and insanity, and the impact of such definitions on the quality of life. (4 units)

343. Understanding Socialism

Description and analysis of socialism: social, economic, political and historical issues. (4 units)

345. Religious Expression in America

Interdisciplinary social science analysis of the relationship among religious beliefs, religious practices and secular society in American culture. (4 units)

350. Roots of Modern Racism in America

An interdisciplinary exploration of the roots of modern racism in America in the decades following the Civil War. The course will focus on the experiences of ethnic men and women and on the concurrent anti-Semitic, anti-Catholic and Americanization movements. The course will focus on the dynamics of these intergroup relations and their legacy for contemporary America. (4 units)

495. Expository Writing for the Social Sciences

Writing related to the social sciences including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. No more than one of the expository writing courses (Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Students who have received a grade of no credit in any combination of the expository writing courses two or more times must meet with the 495 coordinator or designee to design a developmental writing plan as a condition for enrolling for a third quarter. All students must obtain junior status at the time of registration or their course request will be cancelled. Graded A, B, C/No Credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (4 units)

SOCIOLOGY

Department of Sociology

Faculty Office Building, Room 123
880-5541

Bachelor of Arts

Sociology
Sociology - Social Work Program

Minor

Sociology

Certificate Programs

Gerontology
Social Work

The sociology major offers a balanced program of study for students interested in pursuing graduate study or in the practical application of sociology. The curriculum is designed to expose the student to the scope and methods of sociology and to provide a broad educational background for understanding the structure and functioning of modern society.

The department also offers an alternate program of study for students interested in pursuing a career in social work.

As an adjunct to the curriculum, there are two student organizations for sociology majors. The Sociology Club has a varied program of social, community service and academically oriented activities. In addition to general sociology majors, students in criminal justice and students in social work actively participate in the club. A chapter of Alpha Kappa Delta, the sociology honor society, is open to junior sociology majors with a 3.5 GPA and to seniors and graduate students with a 3.0 GPA.

B.A. IN SOCIOLOGY

Requirements (58 units)

Requirements for the B.A. in Sociology:

1. Soc 100. The Study of Society (4)
2. Soc 308. Introduction to Sociological Research (6)
3. Soc 500. Current Issues in Sociology (4)
4. *Eight units chosen from:*
 - Soc 310. History of Sociological Theory (4)
 - Soc 312. Contemporary Sociological Theory (4)
 - Soc 360. Social Psychology (4)
5. Thirty-six additional units in sociology, thirty-two of which must be upper-division.

SOCIAL WORK PROGRAM

Requirements (58 units)

Requirements for the B.A. in Sociology-Social Work Program:

1. Soc 100. The Study of Society (4)
2. Soc 308. Introduction to Sociological Research (6)
3. Soc 318. Social Welfare Policies and Services (4)
4. Soc 434. Community Organization (4)
5. Soc 436. Group Dynamics (4)
6. Soc 484. Social Casework (4)
7. Soc 500. Current Issues in Sociology (4)
8. *Eight units chosen from:*
 - Soc 310. History of Sociological Theory (4)
 - Soc 312. Contemporary Sociological Theory (4)
 - Soc 360. Social Psychology (4)
9. Twenty units in upper-division sociology courses.

MINOR IN SOCIOLOGY

Requirements (28 units)

Requirements for a minor in Sociology:

1. Twenty-eight units in sociology course work chosen with the consent of a departmental advisor. Eight of these units may be at the lower-division level.

DEPARTMENTAL HONORS

Students majoring in sociology are eligible to receive honors in sociology at graduation if they have met the following:

1. A 3.5 GPA in all sociology courses attempted;
2. At least half of all work attempted in sociology completed at this university;
3. Recommendation for departmental honors by the sociology faculty.

It is strongly recommended that students qualifying for departmental honors register for: Sociology 597. Senior Honors Project

CERTIFICATE PROGRAMS

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure

to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Gerontology

Certificate Requirements (28 units)

1. HSci 423. Health and Wellness of Older Adults (4)
or
Nurs 454. Anatomical/Physiological Processes of Aging (4)
2. Psyc 329. Psychology of Adulthood and Aging (4)
3. Soc 330. Social Gerontology (4)
4. *A minimum of sixteen units of elective courses, chosen with the approval of an advisor from Groups A and B below: (No more than six units in independent study or field study may be applied toward completion of the certificate.)*

A. *Natural Sciences electives:*

1. Biol 223. Human Physiology and Anatomy I (5)
2. Biol 314. Biology of Human Sexuality (4)
3. Biol 315. Introduction to Human Embryology (4)
4. Biol 316. Human Genetics (4)
5. HSci 345. Food Science (5)
or
HSci 362. Principles of Nutrition (4)
6. HSci 371. Community Health Services (4)
7. HSci 440. Family Health Issues for Educators (2)
8. HSci 452B. Special Topics in Health Science and Human Ecology: Death and Dying (4)
9. HSci 492A. Field Study: Action/Research in Human Ecology and Health (5)
10. HSci 492B. Field Study: Action/Research in Human Ecology and Health (5)
11. HSci 595. Independent Study (2-4)
12. Nurs 455. Chronic Diseases of the Aging Population (4)
13. Nurs 456. Adaptation to Chronic Illness (4)
14. Nurs 457. Health Services for the Non-Institutionalized Aging Person (2)
15. Nurs 595. Independent Study (1-6)

B. *Social Sciences electives:*

1. Anth 331. Anthropology of Human Development (4)
2. Psyc 575. Internship in Psychology (4)
3. Psyc 578S. Advanced Topics in Psychology: Aging (2)
4. Psyc 580G. Advanced Seminar in Psychology: Death and Dying (4)
5. Psyc 595. Independent Study (2-4)
6. Soc 434. Community Organization (4)
7. Soc 575. Internship in Sociology and Social Work (5)
8. Soc 590L. Seminar in Sociology: Aging (4)
9. Soc 595. Independent Study (2-5)

Certificate in Social Work

Certificate Requirements (38 units)

1. Soc 100. The Study of Society (4)
2. Soc 318. Social Welfare Policies and Services (4)
3. Soc 339. Socialization (4)
4. Soc 434. Community Organization (4)
5. Soc 436. Group Dynamics (4)
6. Soc 473. Interviewing in Social Work (4)
7. Soc 484. Social Casework (4)
8. Soc 575. Internship in Sociology and Social Work (5) for a total of (10)

Note: *Internship will be waived for those having one year of social work experience in a social agency.*

COURSE OFFERINGS IN SOCIOLOGY (Soc)

Lower Division

100. The Study of Society

Survey of the basic characteristics and dynamics of society and culture from the sociological perspective. (4 units)

103. Critical Issues in Criminal Justice

Contemporary problem areas in the criminal justice system, including issues in evidence, arrest and detention, search and seizure, the ideology of crime control and criminal justice reform and specific areas of crime (organized crime, political crime). (Also offered as Criminal Justice 103. Students may not receive credit for both.) (4 units)

110. Choices in the Life Course

Utilization of social research in helping students make choices about life course events, such as career, education and family. (2 units)

180. Critical Thinking about Social Problems

Critical thinking skills are developed through a comparison of common sense and social scientific analyses of contemporary social problems. Focus on

causal reasoning, common logical fallacies and the distinction between belief and knowledge. (4 units)

200. Social Problems

Social problems in modern industrial societies. Discussion of sociological research and theoretical propositions dealing with such problems as drug addiction, mental illness, war, abortion and sexual perversions. (4 units)

Upper Division

Prerequisite for upper-division courses is Sociology 100, or consent of instructor.

308. Introduction to Sociological Research

Basic ideas and techniques used by sociologists in conducting research such as participant observation and case studies, surveys of public opinion and attitudes and experiments with small groups. Four hours lecture and six hours of laboratory. *Prerequisite: Mathematics 100, 110 or 115.* (6 units)

310. History of Sociological Theory

Historical development of classical sociological theory. (4 units)

312. Contemporary Sociological Theory

Contemporary sociological theory, including an examination of origins, trends, schools and areas of controversy. (4 units)

318. Social Welfare Policies and Services

Survey and analysis of welfare as a complex of societally established income maintenance and social service programs. (4 units)

320. The Sociology of Child Abuse

The occurrence, causes and effects of child abuse as a social phenomenon. (4 units)

322. Sociology of the Ghetto

Existing theories relating to ghetto life styles; the relationship of these to American society as a whole. (4 units)

330. Social Gerontology

Age-status and age-roles in American society, with cross-cultural comparisons including intergenerational conflict and other age-related behaviors. (4 units)

335. Images of Birth and Death

Historical and contemporary beliefs and attitudes about birth and death and the impact of these attitudes on society, from a variety of perspectives with a special focus on feminist analysis. (4 units)

336. Black Women and Feminism

Black women in America and their activities on behalf of women's rights; the interplay of racism and sexism within the women's movement. (4 units)

339. Socialization

Theories, goals and processes of childhood socialization and, to a lesser extent, adult socialization. Emphasis on organized social roles as they are mediated through the norms and patterned interactions of institutions; that is, the family, peer groups and the schools. (4 units)

340. Sociology of the Family

A systematic and comparative analysis of family structure and change: marriage, reproduction, childrearing, marital problems. (4 units)

341. Marriage and Family Among Blacks

Forces affecting the Black family, with emphasis on the roles assigned to individual members. (4 units)

342. The Chicano Family

Consideration of the traditional and changing Mexican-American family patterns. Regional and social class variations. Influence of the family on Mexican-American personality development from a social-psychological perspective. (4 units)

344. Sex Roles: The Life Cycle

An examination of the social roles of men and women in contemporary American society from a life-cycle perspective. Class and racial/ethnic variations in sex-role socialization are emphasized. (4 units)

350. Criminology

Causes of crime with emphasis on sociological factors. (4 units)

352. Juvenile Offender

Causes of juvenile delinquency, types of juvenile offenders, the juvenile court, legal aspects of delinquency and methods of rehabilitation. (4 units)

354. Deviant Behavior

Deviant modes of human adjustment to modern society; processes of personal-social interaction in development of individual and group deviation. (4 units)

355. Medical Sociology

Patient's self concept from the pre-patient stage to the post-patient state and the relationship to the social system. Developmental stages in the "sick role" in contemporary society are emphasized. (4 units)

356. Sociology of Mental Illness

Cultural variations in definitions of mental health and illness; social processes involved in defining, labeling and treating mental illness; stigmatizing effects of being labeled mentally ill; relationship of the incidence and treatment of mental illness to class, ethnicity and other sociological categories. (4 units)

357. Law Enforcement

Sociological analysis of law enforcement systems and the police role, consideration of police discretion and differential implementation of the criminal law, problems affecting crime control and the interdependence of police and community. (Also offered as Criminal Justice 357. Students may not receive credit for more than one of the following courses: Criminal Justice 357, 357A or Sociology 357.) (4 units)

358. Punishment and Corrections

History and theories of punishment and treatment in dealing with criminals, sociological analysis of institutional systems and community based systems, work release programs and pre-release guidance centers. (Also offered as Criminal Justice 358. Students may not receive credit for both.) (4 units)

359. Law and Society

Social and cultural factors underlying the development, maintenance and change of law, legal structures and legal processes; comparative analysis of legal systems; and sociological consideration of the nature of justice. (Also offered as Criminal Justice 359. Students may not receive credit for both.) (4 units)

360. Social Psychology

The study of social interaction as it influences the development of self, role behavior, attitudes and values. Emphasis on symbolic interaction as a school of thought. (4 units)

363. Sociology of Mass Communication

Study of symbolic and organizational aspects of mass communication systems. Special attention to attitudes and beliefs as influenced by the mass media. (4 units)

364. Public Opinion and Propaganda

Nature and bases of public opinion; the social context of propaganda, its bases, its social psychological functions and the techniques of propagandists. (4 units)

368. Sociology of Work and the Professions

Development of occupational roles, with emphasis on specialization and mobility; impact of occupations on social institutions; special focus on the development of the professions. (4 units)

369. Military Sociology

Interrelationships between the civilian and military sector.

- A. Comparative Military Sociology (Also offered as Military Science 325A. Students may not receive credit for both.) (2 units)
- B. American Military Sociology (Also offered as Military Science 325B. Students may not receive credit for both.) (2 units)

370. Sociology of Popular Culture

Sociological study of leisure and popular culture, including sports and mass media. Analysis of the relationships among popular culture, social structure and social change. (4 units)

380. Sociology of Religion

Theoretical analysis of religion as a social institution in complex societies. Structure and functioning of religious organizations, roles and role relationships; types of religious organizations and leadership; relationships of religion to other social institutions; religion and social change. (4 units)

382. Sociology of the Third World

Study of underdevelopment and development in Third World societies. Examination of the causes and consequences of the "development of underdevelopment" in the contemporary world-system. (4 units)

388. Special Comprehensive Examination in Sociology Core Curriculum

Independent study, without required classroom meetings, of the subject matter appropriate to three courses required for the major: Sociology 310, 312 and 360. *Prerequisite: consent of instructor.* Refer to Page 50 for comprehensive examination limitations. (12 units)

410. Racial and Cultural Minorities

Minority group status in contemporary American society. (4 units)

420. Population and Social Ecology

Social causes and consequences of population growth, decline and relocation. (4 units)

430. Urban Sociology

Nature, causes and consequences of urbanization; metropolitan areas; location and types of cities; social and demographic characteristics of urban populations. (4 units)

432. Political Sociology

Examination of political process from the perspective of sociology, exploring in depth the nature, distribution and exercise of power, and related areas of interest. (4 units)

434. Community Organization

Programs of action, operative and proposed, for the organization of the community and the solution of its problems. (4 units)

436. Group Dynamics

Dynamics of primary group relationships, including psychotherapy groups. (4 units)

438. Industrial Sociology

Human relations in industry, both formal and informal, with special attention to problems of morale, productivity, decision-making and bureaucratic structure. (4 units)

440. Power and Privilege

Class, caste and other systems of social stratification with particular reference to the United States. (4 units)

441. Black Social Stratification

Caste in America, comparison of black and white stratification, black social mobility. (4 units)

442. Chicano Social Stratification

Variables affecting the social status of the Mexican-American in society, Mexican-American social mobility, social class differences in Mexican-American communities. (4 units)

450. White Collar Crime

Study of America's most costly form of crime and deviance. History, causes, consequences, prevention and explanations of economic crime and abuse of power in the corporate and business world, the professions, trades, the unions and government. (Also offered as Criminal Justice 450. Students may not receive credit for both.) (4 units)

473. Interviewing in Social Work

Basic interviewing methodology and techniques utilized by social workers in communicating with people who are experiencing adjustment problems. (4 units)

484. Social Casework

Process of problem solving used by social work agencies to help individuals to cope more effectively with their problems in social functioning. (4 units)

488. Special Comprehensive Examination in Sociology Electives

Independent study, without required classroom meetings, of the subject matter appropriate to these three elective courses: Sociology 363, 364 and 370. *Prerequisite: consent of instructor.* Refer to Page 50 for comprehensive examination limitations. (12 units)

500. Current Issues in Sociology

An intensive study of recent works in three different areas of sociology. Topical emphasis will vary. *Prerequisite: senior standing or consent of instructor.* (4 units)

540. Sociology of Education

Sociological analysis of educational organizations, the relationship of such organizations to culture, social class and power, and the roles of teachers, students and administrators. (4 units)

575. Internship in Sociology and Social Work

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and department.* (5 units)

590. Seminar in Sociology

An intensive study of some phase of sociology to be developed by the instructor with the class. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in Sociology 595 may be applied toward graduation. *Prerequisites: senior or graduate standing, a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

597. Senior Honors Project

Original research in an area of sociology, culminating in a major research report. The research project may be a quantitative or qualitative nature. Enrollment limited to students whose formal application for departmental honors is approved. *Prerequisite: formal application approved by department chair.* (5 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

606. Sociology of Terrorism

Ideology, causes, development and sociological effects of terrorism in society. Also included are the histories of terrorist groups, social-psychological profiles of members, technology and modus operandi. (4 units)

SPANISH

Department of Foreign Languages

*Pfau Library Building, Room 272
880-5847*

Bachelor of Arts

Spanish

Teaching Credential Program

Spanish

Minor

Spanish

Certificate Programs

Bilingual/Cross-Cultural Studies: Spanish/
English
Spanish for Public Services

The study of Spanish at California State University, San Bernardino is based on the recognition that the Hispanic culture in the United States forms an integral part of American society, and that the Spanish language, far from being "foreign," is spoken in nearly all sections of our nation alongside of English. In some areas of Southern California as well as other parts of the United States, speakers of Spanish outnumber those who speak English. Moreover, the importance of the Hispanic culture in the United States is increasing daily as additional immigrants arrive from Latin America.

The knowledge of Spanish for those seeking employment in our region is critical for the fields of teaching, journalism, publishing, advertising, writing, business, law, law enforcement, government, health services, as well as other career opportunities. Even a basic knowledge of Spanish at the Spanish 102 level may increase the probability of employment for these and other fields.

For the non-major of Spanish, the Spanish faculty of the Department of Foreign Languages recommends that the student fulfill the general education requirement in the foreign language section by either:

Span 102. College Spanish II (if the student had less than two years of high school Spanish)

or

Span 150. Intermediate Spanish (for those who had two years of high school Spanish)

For those advanced students of Spanish, one of the following courses would be an appropriate course to satisfy the general education requirement:

Span 212. Composition
Span 214. Conversation
Span 216. Introduction to Literary Texts

Additional opportunities for the non-major of Spanish are also available. The Certificate in Spanish for Public Services provides critical skills in Spanish in the areas of speaking, translating and communication. The Certificate in Bilingual/Cross-Cultural Studies: Spanish/English familiarizes the student with the Hispanic culture in and outside of the United States. The Liberal Studies degree, for those prospective teachers of elementary children K-6, can be enhanced by taking the Bilingual Cross-Cultural Emphasis. This track allows the student to teach in both English and bilingual classrooms. The minor in Spanish, which can be combined with any non-Spanish major, gives the student additional experience in Hispanic culture, literature and linguistics. A double major of Spanish and another subject is also an option.

For the Spanish major, the study of all aspects of Hispanic civilization is available, in both lower and upper-division classes. Those desiring to teach Spanish at the high-school level as well as all other students in the program will receive a solid preparation in the culture and language of Spain and Latin America, as well as the Hispanic community within the United States.

B.A. IN SPANISH

Requirements (80 units)

Requirements for the B.A. in Spanish:

Lower-division requirements (12 units)

1. Proficiency in Spanish equal to that of Spanish 150. Intermediate Spanish. **Note:** Entering students with previous training in Spanish, and those who are native speakers, should contact the Department of Foreign Language for information about advanced placement and credit by examination.
2. Span 212. Composition (4)
3. Span 214. Conversation (4)
4. Span 216. Introduction to Literary Texts (4)

Upper-division requirements (68 units)

1. Span 302. Theory and Practice in Composition (4)
2. Span 320. Special Problems in Spanish Grammar (4)
3. Span 402. Advanced Composition (4)
4. Span 415. Comparative Linguistics: Spanish/English (4)
5. Span 420. History of the Spanish Language (4)
6. *Four units chosen from:*
 - Span 312. Techniques for Professional Interpreting and Translating in Spanish (4)
 - Span 314. Advanced Conversation (4)
 - Span 316. Spanish for the Professions (4)

7. Span 381. Spanish Peninsular Literature I (4)
8. Span 382. Spanish Peninsular Literature II (4)
9. Span 383. Spanish Peninsular Literature III (4)
10. Span 391. Latin American Literature I (4)
11. Span 392. Latin American Literature II (4)
12. Span 410. Spanish Peninsular Civilization (4)
13. Span 412. Latin American Civilization (4)
14. *Four units chosen from:*
 - Span 400. Masterpieces in Spanish and Spanish American Literature (4)
 - Span 440. Mexican Literature (4)
15. Span 514. Seminar in Hispanic Language or Literature
16. Eight units chosen from any upper-division Spanish courses.

TEACHING CREDENTIAL PROGRAM

The Bachelor of Arts in Spanish is approved as a single subject teaching credential program. In addition to the requirements of the major, credential candidates must complete certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program or specific requirements of the single subject waiver program, see Page 147 or contact the School of Education Student Teaching office.

MINOR IN SPANISH

Requirements (28 units)

Requirements for a minor in Spanish:

Proficiency in Spanish equal to Spanish 150. Intermediate Spanish. **Note:** Entering students with previous training in Spanish, and those who are native speakers, should contact the Department of Foreign Languages for information about advanced placement and credit by examination.

Twenty-eight additional units in Spanish courses, twenty units of which must be upper-division.

CERTIFICATE PROGRAMS

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements

and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Bilingual/Cross-Cultural Studies: Spanish/English

Certificate Requirements (32 units)

Lower-division requirements (8 units)

1. Span 212. Composition (4)
2. Span 216. Introduction to Literary Texts (4)

Upper-division requirements (24 units)

1. Comm 304. Intercultural Communication (4)
2. *Eight units chosen from:*
 - Art 328. Mexican Art (4)
 - Art 329. Chicano Art (4)
 - Comm 472. Hispanic Media (4)
 - Span 400. Masterpieces in Spanish and Spanish American Literature (4)
 - Span 415. Comparative Linguistics: Spanish/English (4)
 - Span 440. Mexican Literature (4)
 - Span 514. Seminar in Hispanic Language or Literature (4)
3. *Twelve units chosen from:*
 - Anth 354. Cultures of Mexico and Central America (4)
 - Anth 356. Cultures of South America (4)
 - Anth 460. Language and Culture (4)
 - Hist 390. History of Mexico (4)
 - Hist 391. Chicano History (4)
 - Hist 470. Modern Latin America (4)
 - IS 460. Aspects of Chicano Culture (4)

Certificate in Spanish for Public Services

Certificate requirements (28 units)

Proficiency in Spanish equal to Spanish 150. Intermediate Spanish or equivalent. **Note:** Entering students with previous training in Spanish, and those who are native speakers, should contact the Department of Foreign Languages for information about advanced placement and credit by examination.

Lower-division requirement (4 units)

1. Span 212. Composition (4)

Upper-division requirements (24 units)

1. Span 302. Theory and Practice in Composition (4)
2. Span 312. Techniques for Professional Interpreting and Translating in Spanish (4)
3. Span 314. Advanced Conversation (4)
4. Span 316. Spanish for the Professions (4)
5. Span 400. Masterpieces in Spanish and Spanish American Literature (4)
6. Span 415. Comparative Linguistics: Spanish/English (4)

COURSE OFFERINGS IN SPANISH (Span)

Lower Division

Courses at the 101, 102, 103 and 150 levels require one hour each week in the language laboratory in addition to the regularly scheduled classroom hours.

Students who have completed one or more Spanish upper-division courses may not enroll in lower division courses without the approval of the Department of Foreign Languages.

101. College Spanish I

Fundamentals of pronunciation, structure and Hispanic culture designed to develop the ability to use and understand basic spoken Spanish. (4 units)

102. College Spanish II

Further study of the fundamentals of pronunciation, structure and Hispanic culture designed to develop the ability to use and understand basic spoken Spanish. Continuation of Spanish 101. (4 units)

103. College Spanish III

Additional study of the fundamentals of pronunciation, structure, and Hispanic culture designed to develop the ability to use and understand basic spoken and written Spanish. Continuation of Spanish 102. (4 units)

150. Intermediate Spanish

Emphasis on oral and written competency at the intermediate level in a cultural context. *Prerequisite: two years of high school Spanish, or Spanish 103, or equivalent.* (4 units)

155. Intermediate Spanish for Spanish Speakers

Emphasis on reading comprehension, vocabulary building, and writing at the intermediate level in a cultural context. Students may not receive credit for both Spanish 150 and 155. *Prerequisite: ability to speak Spanish.* (4 units)

212. Composition

Comprehensive review of the principles of Spanish grammar, emphasizing their application to composition. May not be taken for credit by students who have received credit for Spanish 202. *Prerequisite: Spanish 150 or equivalent.* (4 units)

214. Conversation

Practice of oral Spanish stressing the discussion of current topics, panel discussions, debates, short talks and skits. *Prerequisite: Spanish 150 or equivalent.* (4 units)

216. Introduction to Literary Texts

Techniques of literary study and analysis. Vocabulary development. May not be taken for credit by students who have received credit for Spanish 204. *Prerequisite: Spanish 150 or equivalent.* (4 units)

290. Spanish and Latin American Literature in English

Introduction to Hispanic literature read in English translation. (4 units)

Upper Division

Ordinarily, upper-division courses are conducted in Spanish. Students enrolled in these courses will be evalu-

ated on appropriate progress in both the command of the language and the subject matter.

302. Theory and Practice in Composition

Extensive practice in composition and style. May be repeated for credit. *Prerequisite: Spanish 212 or 216 or equivalent.* (4 units)

312. Techniques for Professional Interpreting and Translating in Spanish

Oral and written practice and methods of translation from Spanish to English and English to Spanish with application to public service activities. *Prerequisite: Spanish 302.* (4 units)

314. Advanced Conversation

Intensive practice of oral Spanish leading to fluency, to the development of a comprehensive, practical vocabulary and to public speaking skills. *Prerequisite: Spanish 214 or equivalent.* (4 units)

316. Spanish for the Professions

Oral and written practice in terminology used in various professions. May be repeated as topics change.

Prerequisites: Spanish 212 and 302.

A. Communications (4 units)

B. Health Science (4 units)

C. Education (4 units)

D. Business (4 units)

E. Law Enforcement (4 units)

320. Special Problems in Spanish Grammar

Intensive study of selected grammatical problems in Spanish. Three hours lecture and two hours laboratory. *Prerequisites: Spanish 212 and 302.* (4 units)

381. Spanish Peninsular Literature I

Readings in Spanish peninsular literature from the Middle Ages to 1700. *Prerequisites: Spanish 212, 216 and 302.* (4 units)

382. Spanish Peninsular Literature II

Readings in Spanish peninsular literature of the eighteenth and the nineteenth centuries. *Prerequisites: Spanish 212, 216 and 302.* (4 units)

383. Spanish Peninsular Literature III

Readings in Spanish peninsular literature of the twentieth century. *Prerequisites: Spanish 212, 216 and 302.* (4 units)

391. Latin American Literature I

Readings in Latin American literature through the eighteenth century. *Prerequisites: Spanish 212, 216 and 302.* (4 units)

392. Latin American Literature II

Readings from Latin American literature from the nineteenth century to the present. *Prerequisites: Spanish 212, 216 and 302.* (4 units)

399. Community Service Project

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of department.* (Credit to be arranged: 1 or 2 units)

400. Masterpieces in Spanish and Spanish American Literature

Reading and discussion of selected masterworks of Spanish and Spanish American literature. May be repeated for credit as topics change. *Prerequisite: Spanish 216 or equivalent.* (4 units)

402. Advanced Composition

Advanced expository writing in Spanish, including documented research reports and analytical papers. Revision and rewriting will be required. May be repeated for credit. *Prerequisite: Spanish 302 with a grade of "C" or better.* (4 units)

410. Spanish Peninsular Civilization

Analysis of significant cultural aspects of Spanish civilization. *Prerequisites: Spanish 212 and 302.* (4 units)

412. Latin American Civilization

Analysis of significant cultural aspects of Latin American civilization. *Prerequisites: Spanish 212 and 302.* (4 units)

415. Comparative Linguistics: Spanish/English

Application of modern linguistic theory to the problems of second language acquisition in the areas of phonology, morphology and syntax. Emphasis will be given to analysis of the subsystems of English and Spanish. Includes classroom applications. *Prerequisite: Spanish 212 or consent of instructor.* (4 units)

420. History of the Spanish Language

History of the Spanish language from pre-Roman days to the present. *Prerequisites: Spanish 212, 302, and 415 or English 311; or consent of instructor.* (4 units)

440. Mexican Literature

Survey of the development of Mexican literature from 1520 to the present. *Prerequisites: Spanish 212, 216, 302 and 391 or 392.* (4 units)

514. Seminar in Hispanic Language or Literature

Advanced study of a single author, a literary movement, a genre or linguistics. May be repeated for credit as topics change. *Prerequisite: one 400-level Spanish course.* (4 units)

SPECIAL MAJOR

Undergraduate Program

*Office of Dean, Undergraduate Studies
Student Services Building, Room 158
880-5032*

B.A. IN SPECIAL MAJOR

Requirements (40 units)

Occasionally, students with specialized educational or professional objectives may find that the existing degree programs offered at the University do not satisfy personal needs or career plans and that a carefully structured, interdisciplinary program of study is more appropriate. The special major, through which students design their own program of study drawn from the regular offerings of two or more departments, is intended to meet this need.

In order to be considered for admission to the special major program, a student must select a full-time faculty member to serve as academic advisor and must develop a program of study to be submitted for approval on forms available through the Office of the Dean of Undergraduate Studies. Once the program of study is approved by the University Curriculum Committee and by the dean of undergraduate studies, the student is admitted to the program.

Requirements for the B.A. in Special Major

In addition, the following limitations and regulations apply:

1. To be admitted to the special major program, the student must have more than one full year of academic work (36 quarter units) remaining to complete the minimum requirements for a bachelor's degree.
2. The plan of study must include at least 40 quarter units of upper-division work.
3. No courses that are applied to the general education requirements of the University are applicable toward the minimum requirements of the special major.
4. The special major may not be used as a second major or as a second bachelor's degree.
5. The special major cannot be used to substitute for a degree program offered elsewhere in the California State University which this University is not authorized to offer. It cannot be used to bypass normal graduation requirements, nor can it serve as an alternative to completion of degree requirements for a major in which the student is in academic difficulty.
6. If any independent study courses are included in the program, students must meet the University requirements for such courses at the time they submit their application for a special major.

7. No more than 10 units of Independent Study may be applied to the special major.

THEATRE ARTS

Department of Theatre Arts

*Creative Arts Building, Room 175
880-5876*

Bachelor of Arts

Theatre Arts

Minor

Theatre Arts

Certificate Program

Children's Theatre

The theatre arts major has a practical appeal for students with diverse interests. Directly related career opportunities are to be found in the technical or performance areas of cinema, television, commercial or noncommercial theatre and education.

Because of study, research, and of interpersonal skills developed, and of discipline required, there are also many indirectly related career opportunities in such fields as research, merchandising, sales and design.

Many courses in the department are without prerequisites which make them appealing electives. Liberal studies majors will benefit from a concentration in theatre arts by developing new perceptions of divergent thinking and practical skills which can be used in an elementary classroom.

The theatre arts department produces a major play each term as well as periodic special events such as Touring Theatre and Imagination Players. Students are encouraged to work with faculty and staff developing their own productions ranging from narrowly defined acting/directing projects to full-scale productions. In addition, highly motivated and skilled students earn special opportunities to work as assistant designers or directors for major productions.

Theatre arts majors choose to concentrate in one of three areas once they have completed a common core of courses: acting, design/technical, dramatic literature. Students interested in children's theatre, see the certificate program described on Page 301.

B.A. IN THEATRE ARTS

Requirements (83 units)

Requirements for the B.A. in Theatre Arts:

Lower-division requirements (25 units)

1. TA 131. Stage Makeup (2)
2. TA 222. Theatre Laboratory: Construction (1) for a total of (3)
3. TA 232. Lighting and Sound (2)

4. TA 233. Costume Construction (2)
5. TA 235. Fundamentals of Stage Design (4)
6. TA 239. Stagecraft (2)
7. TA 245. Beginning Theatre Movement (2)
8. TA 251. Acting I (3)
9. TA 252. Acting II (3)
10. TA 253. Voice for the Stage (2)

Upper-division requirements (58 units)

1. TA 320D. Theatre Practicum: Technical Production (2) for a total of (6)
2. TA 346. Directing I (3)
3. TA 351. Acting III (3)
4. TA 361. Theatre History I: Origins Through Medieval (4)
5. TA 362. Theatre History II: Renaissance Through 18th Century (4)
6. TA 363. Theatre History III: 19th Century to the Present (4)
7. TA 450. Classical Drama (4)
8. *Four units chosen from:*
 - TA 320A. Theatre Practicum: Performance (2)
 - TA 320B. Theatre Practicum: Imagination Players (2)
 - TA 320C. Theatre Practicum: Touring Theatre (2)
9. *Eight units chosen from:*
 - TA 451. Mystery to Melodrama (4)
 - TA 455. Modern Drama I (4)
 - TA 456. Modern Drama II (4)
 - TA 461. American Drama (4)
 - TA 475. Shakespeare I (4)
 - TA 476. Shakespeare II (4)

Note: Students choosing the dramatic literature emphasis (Group C below) may not take TA 475. Shakespeare I, or TA 476. Shakespeare II as core courses.

10. *Eighteen units chosen from one of the following emphases (A, B or C):*

A. Acting Emphasis:

1. TA 312. Oral Interpretation for the Theatre (3)
2. TA 345A. Theatre Movement: Period Manners and Stage Encounters (2)
3. TA 345B. Theatre Movement: Physical Characterization (2)
4. TA 352. Acting IV (3)
5. TA 353. Acting V (3)
6. TA 482. Readers Theatre (3)
7. Two units of electives in Theatre Arts courses.

B. Design/Technical Emphasis:

1. TA 332. Stage Lighting Design (3)
2. TA 334. Theatrecrafts (2) for a total of (4)
3. TA 337. Design: Costume Design (3)
4. TA 338. Design: Scene Design (3)

5. Five units of electives in Theatre Arts courses.

C. Dramatic Literature

1. TA 332. Stage Lighting Design (3)
2. TA 475. Shakespeare I (4)
3. TA 476. Shakespeare II (4)
4. TA 482. Readers Theatre (3)
5. Four units of electives in Theatre Arts courses.

MINOR IN THEATRE ARTS

Requirements (36 units)

Requirements for a minor in Theatre Arts:

Lower-division requirements (16 units)

1. TA 222. Theatre Laboratory: Construction (1) for a total of (2)
2. TA 235. Fundamentals of Stage Design (4)
3. TA 251. Acting I (3)
4. TA 252. Acting II (3)
5. *Four units chosen from:*
 - TA 232. Lighting and Sound (2)
 - TA 233. Costume Construction (2)
 - TA 239. Stagecraft (2)

Upper-division requirements (20 units)

1. TA 346. Directing I (3)
2. TA 351. Acting III (3)
3. TA 361. Theatre History I: Origins through Medieval (4)
4. TA 362. Theatre History II: Renaissance through 18th Century (4)
5. TA 363. Theatre History III: 19th Century to the Present (4)
6. *Two units chosen from:*
 - TA 320A. Theatre Practicum: Performance (2)
 - TA 320B. Theatre Practicum: Imagination Players (2)
 - TA 320C. Theatre Practicum: Touring Theatre (2)
 - TA 320D. Theatre Practicum: Technical Production (2)

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not

be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Children's Theatre

Certificate Requirements (33 units)

Lower-division requirements (17 units)

1. TA 212. Oral Interpretation of Literature (4)
2. TA 222. Theatre Laboratory: Construction (1)
3. TA 235. Fundamentals of Stage Design (4)
4. TA 239. Stagecraft (2)
5. TA 251. Acting I (3)
6. TA 252. Acting II (3)

Upper-division requirements (12 units)

1. TA 382. Readers Theatre in the Classroom (4)
2. TA 481. Creative Drama in the Classroom (4)
3. TA 483. Children's Theatre (4)

Four units of performance/production chosen from:

- TA 240. Improvisation (3)
- TA 320A. Theatre Practicum: Performance (acting in a major or student production) (2)
- TA 320B. Theatre Practicum: Imagination Players (Reader's Theatre touring company for elementary schools) (2)
- TA 320C. Theatre Practicum: Touring Theatre (touring company for high schools; a two quarter commitment) (2) for a total of (4)
- TA 320D. Theatre Practicum: Technical Production (crew work on major/student production) (2)
- TA 320E. Theatre Practicum: Special Projects (to be arranged in consultation with faculty) (2)
- TA 555. Independent Study (in Children's Theatre Production) (4)

Note: *The following courses may be repeated to fulfill the above requirement in the area of performance/production:*

- TA 320A. Theatre Practicum: Performance
- TA 320B. Theatre Practicum: Imagination Players
- TA 320D. Theatre Practicum: Technical Production

COURSE OFFERINGS IN THEATRE ARTS (TA)

Lower Division

131. Stage Makeup

Theory and application of stage makeup. (2 units)

160. World Drama

Selected readings of dramatic literature (in translation) from the 5th century B.C. to the 19th century. (Also offered as English 160. Students may not receive credit for both.) *Prerequisite: English 101 or equivalent.* (4 units)

212. Oral Interpretation of Literature

Literary and aesthetic analysis of poetry, prose or drama through performance techniques of oral interpretation. May not be taken for credit by students who have received credit for Theatre Arts 211. (4 units)

221. Theatre Laboratory: Performance

Students select their own scenes and one-act plays which they act and direct in an informal studio setting. Open to all students. A maximum of five units of Theatre Arts 221 or 222 in any combination may be used to satisfy graduation requirements. (1 unit)

222. Theatre Laboratory: Construction

Laboratory application of technical theatre (scenery, costumes or lighting) for an audience. Open to all students. A maximum of five units of Theatre Arts 221 or 222 in any combination may be used to satisfy graduation requirements. (1 unit)

232. Lighting and Sound

Basic electrical theory of stage lighting and sound, production techniques, instrumentation and control equipment. *Corequisite: Theatre Arts 222.* (2 units)

233. Costume Construction

Costume techniques including basic pattern drafting, cutting, fitting and construction of garments. *Corequisite: Theatre Arts 222.* (2 units)

235. Fundamentals of Stage Design

Study of the elements of color, line and texture as they relate to visual analysis of dramatic literature through two- and three-dimensional projects in set, costume and lighting design. Three hours lecture and two hours activity. (4 units)

239. Stagecraft

Introduction to the theory and practice of scenery and prop construction including the use of tools, materials, techniques and drafting required in execution of designs. May not be taken for credit by students who have received credit for Theatre Arts 231. *Corequisite: Theatre Arts 222.* (2 units)

240. Improvisation

A beginning course in improvisational techniques for the actor and for those who will use drama as an educational tool. (3 units)

245. Beginning Theatre Movement

Beginning theory and fundamentals of specialized stage movement. (2 units)

251. Acting I

Foundation training for actors through theatre games, improvisation and exercises for developing expressive freedom, creativity, relaxation and concentration. (3 units)

252. Acting II

Fundamentals for creating a role methodically. Improvisational exercises encouraging the use of such elements as objectives, given circumstances, character analysis and conflict. *Prerequisite: Theatre Arts 251.* (3 units)

253. Voice for the Stage

Theory and practice of vocal techniques for the actor, including voice production, diction, flexibility, projection and voice care. (2 units)

260. Introduction to Theatre

An introduction to the basic principles and artistic choices guiding theatre artists. Illustrations will be developed in part from demonstration and participation. Students will be expected to experience theatre as active audience members or production crews. May not be taken for credit by students who have received credit for Theatre Arts 250. (4 units)

Upper Division

302. Analysis of Drama

Analysis of selected plays. Written analysis required. (Also offered as English 302. Students may not receive credit for both.) *Prerequisite: English 101.* (4 units)

312. Oral Interpretation for the Theatre

Techniques for the oral performance of drama, including literary and aesthetic analysis of plays. *Prerequisite: Theatre Arts 212.* (3 units)

320. Theatre Practicum

Performance students experience role preparation, rehearsal and acting before an audience; Imagination Players gain touring experience in rehearsal and performance of children's literature, readers theatre style; Touring Theatre students experience rehearsal and performance of adult dramatic material; technical production students experience application of scenery, costumes, lighting or stage management; special projects students experience production of student-developed projects. Open to all students. No more than 10 units of theatre practicum may be counted toward fulfilling course requirements in the theatre arts major. No more than 20 units of theatre practicum may be used to satisfy graduation requirements.

- A. Performance (2 units)
- B. Imagination Players (2 units)
- C. Touring Theatre (2 units)
- D. Technical Production (2 units)
- E. Special Projects (2 units)

331. Theatre Management

Survey of fine arts management principles as they apply to theatre. (4 units)

332. Stage Lighting Design

Basic lighting design theories. Lighting design plots for various theatrical styles will be developed. May be repeated for credit. *Prerequisites: Theatre Arts 232 and 235.* (3 units)

334. Theatrecrafts

Theory and application of a theatrecraft such as: stage management, shop crafts, scene painting, millinery, pattern drafting, rendering. Experience with the craft will be provided. May be repeated for credit as topics change. (2 units)

337. Design: Costume Design

Advanced projects in the design of costumes with an emphasis on rendering techniques and stylization. May be repeated for credit. *Prerequisite: Theatre Arts 235.* (3 units)

338. Design: Scene Design

Advanced projects in scene design, using both renderings and models. Concentration on an exploration of design styles. May be repeated for credit. *Prerequisite: Theatre Arts 235.* (3 units)

345. Theatre Movement

Theory and fundamentals of specialized stage movement. May be repeated for credit as topics change.

A. Period manners and stage encounters *Prerequisite: Theatre Arts 245.* (2 units)

B. Physical characterization *Prerequisite: Theatre Arts 345A.* (2 units)

346. Directing I

Fundamentals of play directing through theory and practice. *Prerequisites: Theatre Arts 260 and 351 or consent of instructor.* (3 units)

347. Playwriting

Fundamentals of play development to include plot, character, structure, theme, culminating in individual performable scripts. (Also offered as English 347. Students may not receive credit for both.) *Prerequisite: English or Theater Art 302, or consent of instructor.* (4 units)

351. Acting III

Application of acting techniques through scene study of plays in the contemporary repertory. *Prerequisite: Theatre Arts 252.* (3 units)

352. Acting IV

Continued scene study with an emphasis on plays in the modern classical repertory (for example, Ibsen, Chekhov, Shaw). *Prerequisite: Theatre Arts 351.* (3 units)

353. Acting V

Studies and performance of selected styles in theatre from classical times to the 19th century. *Prerequisite: Theatre Arts 351 or 352.* (3 units)

361. Theatre History I: Origins Through Medieval

Consideration of theatre architecture and theatre practices for the purpose of understanding the major trends in the development of theatre arts. Representative examples of dramatic literature will be read to illustrate those trends. (4 units)

362. Theatre History II: Renaissance Through 18th Century

Consideration of theatre architecture and theatre practices for the purpose of understanding the major trends in the development of theatre arts. Representative examples of dramatic literature will be read to illustrate those trends. (4 units)

363. Theatre History III: 19th Century to the Present

Consideration of theatre architecture and theatre practices for the purpose of understanding the major trends in the development of theatre arts, including the impact of Asian theatre. Representative examples of dramatic literature will be read to illustrate those trends. (4 units)

382. Readers Theatre in the Classroom

Classroom application of group techniques for oral performance and staging of children's literature. Includes the preparation and performance of scripts to be used for reading enhancement and interdisciplinary studies, as well as the creation of original scripts. May not be counted toward fulfilling requirements of the theatre arts major. (4 units)

385. Acting for Non-Majors

Introduction to acting through exercises, improvisations and scene study. Not open to theatre arts majors. (4 units)

430. Advanced Stagecraft

Advanced problems in planning, drafting, construction and rigging of scenery. *Prerequisites: Theatre Arts 222, 235, 239 and 320D.* (3 units)

445. The Camera Eye

Film as a creative art medium. Such topics as the history of silent film, film since the '50's or television will be chosen. May be repeated for credit as topics change. May not be counted toward fulfilling requirements in the theatre arts major. (4 units)

446. Directing II

Advanced studies in play directing. *Prerequisite: Theatre Arts 346.* (3 units)

450. Classical Drama

Development of comedy and tragedy in Greece and Rome. (Also offered as English 450. Students may not receive credit for both.) (4 units)

451. Mystery to Melodrama

Development of drama from medieval passion plays to late 19th century villain-hissing melodramas. Emphasis on either comedy or tragedy. (4 units)

455. Modern Drama I

European, British and American realism, beginning with variations of the 19th century well-made play. Emphasizes such playwrights as Ibsen, Chekhov, Shaw and O'Neill. (Also offered as English 455. Students may not receive credit for both.) (4 units)

456. Modern Drama II

European, British and American anti-realism, including various avant-garde movements. Emphasizes such playwrights as Brecht, Pinter, Wilder and Genet. (Also offered as English 456. Students may not receive credit for both.) (4 units)

461. American Drama

Survey of the American theatre and its drama (Dunlap to Odets) as they reflect the changing patterns of American society. (4 units)

462. Afro-American Theatre and Drama

A survey of the Afro-American theatre from its African origins in the oral tradition through contemporary trends, including issues of politics, race and gender in terms of

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the American theatre in general. Emphasis on Afro-American playwrights, companies and performers within their social and historical contexts. (4 units)

475. Shakespeare I

Comedies and history plays. (Also offered as English 475. Students may not receive credit for both.) (4 units)

476. Shakespeare II

Tragedies and romances. (Also offered as English 476. Students may not receive credit for both.) (4 units)

481. Creative Drama in the Classroom

Experience with improvisational dramatic techniques which emphasize concentration, imagination and self-expression and are designed to develop creative leadership for parents, recreation leaders, elementary and secondary teachers. May not be counted toward fulfilling requirements in the theatre arts major. (4 units)

482. Readers Theatre

Group techniques for oral performance of literature. Includes the preparation and performance of scripts for Readers Theatre, Choral Theatre, Story Theatre and Chamber Theatre. (3 units)

483. Children's Theatre

Theory and techniques of selecting, directing and producing plays for child audiences; includes examination and evaluation of scripts, audience analysis, and the philosophy and application of children's theater in an educational setting. (4 units)

510. Studies of Major Figures and Genres

May be repeated for credit as topics change. (4 units)

520. Theatre Seminar

Literature and theory relative to topics such as: aesthetics, theatre history, drama, dramatic criticism and design. May be repeated for credit as topics change. (4 units)

535. Independent Project

Advanced individual project in any aspect of departmental productions. *Prerequisite: consent of instructor.* (Credit to be arranged: 1 to 4 units)

555. Independent Study

Study and analysis culminating in demonstrated expertise in the areas of performance, direction, design or theatre research. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

602. Seminar in Dramatic Literature for Stage and Film

Advanced study in particular kinds of dramatic literature and film with special focus on generic problems and issues. May be repeated for credit as topics change. (Also offered as English 602. Students may not receive credit for both.) (4 units)

UNIVERSITY HONORS PROGRAM

Office of the Dean of Undergraduate Studies

*Student Services Building, Room 158
880-5032*

The University Honors Program at California State University, San Bernardino offers specialized courses and other enrichment opportunities for highly motivated students who seek an intellectual challenge. Most honors courses fulfill the General Education requirements which all students at the University must meet; however the curriculum is designed to add depth and breadth to the undergraduate course of study. Honors students are encouraged to take an active role in their own learning process, to think about problems they will face in creating the future, and to explore their roles in addressing these problems. Integration of subject matter across the curriculum is a primary goal of the program. Students will be encouraged to develop thinking skills and to use these skills in analyzing and evaluating problems of contemporary society. Honors students will have:

- Special academic advising;
- The opportunity to participate in Honors activities such as lectures, concerts and art exhibits;
- Honors courses in basic skills such as writing, oral communication and critical thinking;
- Honors seminars which promote interaction among students and faculty;
- Honors courses in specific academic disciplines and interdisciplinary areas;
- Extensive library privileges.

Admission to the Program

Incoming freshmen, sophomores, juniors and transfer students who have shown scholastic ability, intellectual promise, and creativity are encouraged to apply for the University Honors Program. Incoming freshmen should have SAT scores of 1100 and/or ACT scores of 26 and above, a G.P.A. of at least 3.5, and be in the upper tenth of their graduating class. Sophomores, juniors and transfer students who have remained consistently on the Dean's List and/or have maintained a 3.5 overall G.P.A. in previous course work may apply to the program. In addition, any faculty member identifying a student as one who has the potential to profit from the challenge of the program may sponsor a student into the program, with the approval of the Honors Committee.

UNIVERSITY HONORS PROGRAM

Requirements of the Program

To remain in good standing in the Honors Program, students are expected to maintain a G.P.A. of 3.3 overall.

Requirements for students who enter the Honors Program as Freshmen (38 units)

1. Honors 103A Language and Meaning (4 units)
2. Honors 103B Language and Meaning (4 units)
3. Honors 103C Language and Meaning (4 units)

Note: Honors 103A, B and C must be completed before students will be granted general education credit in Written Communication, Oral Communication and Critical Thinking.

4. Honors 105A Honors Colloquium (1 unit)
5. Honors 105B Honors Colloquium (1 unit)
6. Honors 105C Honors Colloquium (1 unit)
7. Honors 205A Honors Seminar (1 unit)
8. Honors 205B Honors Seminar (1 unit)
9. Honors 205C Honors Seminar (1 unit)
10. A senior project in a department (4 units)
11. Sixteen additional units of which eight must be upper division, to be taken from honors-designated courses.

Requirements for students who enter the Honors Program as Sophomores (23 units)

1. Honors 205A Honors Seminar (1 unit)
2. Honors 205B Honors Seminar (1 unit)
3. Honors 205C Honors Seminar (1 unit)
4. A senior project in a department (4 units)
5. Sixteen additional units of which eight must be upper division, to be taken from honors designated courses.

Requirements for students who enter the Honors Program as Juniors (15 units)

1. Honors 205A Honors Seminar (1 unit)
2. Honors 205B Honors Seminar (1 unit)
3. Honors 205C Honors Seminar (1 unit)
4. A senior project in a department (4 units)
5. Eight additional upper division units to be taken from honors designated courses.

COURSE OFFERINGS IN UNIVERSITY HONORS (Hon)

103. Language and Meaning

An integrated course in the Honors Program meeting General Education requirements for basic skills in composition, critical thinking, and communication. The

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course emphasizes using the various basic skills in the process of exploring specific current issues. *Prerequisite: acceptance into the Honors Program.*

- A. (4 units)
- B. (4 units)
- C. (4 units)

105. Honors Colloquium

Analysis and discussion of current ideas and events. Freshman students admitted to the Honors Program are required to enroll in the colloquium each of the three quarters of their freshman year. *Prerequisite: acceptance into the Honors Program.*

- A. (1 unit)
- B. (1 unit)
- C. (1 unit)

205. Honors Seminar

Research and discussion of current events and ideas. Sophomore students continuing in the Honors Program, as well as students entering the program as sophomores or juniors, are required to enroll in the seminar each of the three quarters. *Prerequisite: acceptance into the Honors Program.*

- A. (1 unit)
- B. (1 unit)
- C. (1 unit)

315. Special Topics

Examination of selected topics for students in the Honors Program. May be repeated for credit as topics change. *Prerequisites: acceptance into the Honors Program.*
(4 units)

UNIVERSITY STUDIES

Office of Undergraduate Studies

*Student Services Building, Room 158
880-5032*

The Learning Center and the Student Assistance in Learning Program (SAIL) offer the following study-skills courses in support of other University programs.

COURSE OFFERINGS IN UNIVERSITY STUDIES (UStd)

25. Academic Study Skills

Designed for the student who needs to work on an independent basis in reading or writing with a developmental specialist or tutor. The course will emphasize comprehension, vocabulary and the writing process after diagnosis of student's needs. Units awarded are not applicable to a baccalaureate degree. May be repeated for credit as topics change. Graded credit/no credit. *Prerequisite: consent of Learning Center program coordinator.*

- A. English 85 (2 units)
- B. English 95 (2 units)
- C. English 101 (2 units)
- D. English 495 (2 units)
- E. General (2 units)

27. Individualized Study Contract

Designed for the student who needs to work on an independent basis under the direction of a study specialist in order to improve skills such as handwriting or spelling. May be repeated. Units awarded are not applicable to a baccalaureate degree. (Credit to be arranged: 1 or 2 units.)

37. Introduction to College Study Skills

Introduction to skills needed for success in college, focusing on study strategies such as: time management, listening, note taking and learning from text. Units awarded are not applicable to a baccalaureate degree. (4 units)

40. Advanced Notetaking and Organization

Instruction in adaptation of note taking skills across the curriculum with emphasis on editing, organizing and combining notes from text, class, lab, field and library. Organization of content to enhance concentration and memory and improve test taking ability. Units awarded are not applicable to a baccalaureate degree. *Prerequisite: University Studies 37 or consent of instructor.* (2 units)

45. College Reading

Instruction in comprehension of college texts with focus on adaptation across the curriculum, vocabulary development, reading at efficient rates, and concentration. Units awarded are not applicable to a baccalaureate degree. (2 units)

77. Adjunct for Specific Subjects

Taught as an adjunct to specifically designated classes with emphasis on texts used in those classes. Course objectives include improvement in reading speed, vocabulary and comprehension of texts, awareness of an instructor's lecture style, integration of course materials, comprehension of test questions and study planning. May be repeated for credit as topics change. Units awarded are not applicable to a baccalaureate degree. Graded A, B, C/No Credit. (2 units)

99. Reading Enhancement

Improvement in speed, vocabulary and reading comprehension. Taught as an adjunct to specifically designated classes with an emphasis on texts used in those classes. May be repeated. Units awarded are not applicable to a baccalaureate degree. Graded A, B, C/No Credit. (2 units)

VOCATIONAL EDUCATION

School of Education

Faculty Office Building, Room 182
880-5600

Bachelor of Vocational Education (BVE) Degree Program

Master of Arts

Vocational Education Option
(Degree requirements can be found on Page
349.)

BACHELOR OF VOCATIONAL EDUCATION (BVE) DEGREE PROGRAM

Requirements (186 units)

Admission to the Program

The Bachelor of Vocational Education (BVE) Degree Program has been designed to provide vocational and occupational teachers who have significant occupational and teaching experience, the opportunity to have that experience count as partial credit toward a baccalaureate degree. Qualified applicants can have their work experience evaluated (under provisions of the Swan Bill) and may be awarded up to 60 units of academic credit which will be applied toward meeting the Vocational Arts Major requirements.

Note: In order to qualify for a Swan Bill Evaluation an applicant must have at least five years of paid full-time work experience, at least 1620 hours of full-time or 1000 hours of part-time teaching experience and an appropriate teaching credential.

Applicants must be admitted to the university and should take Vocational Education 335. Introduction to Vocational Education as soon as possible.

Requirements for Graduation

A. Students must complete a minimum of 186 quarter units of college credit:

1. At least 45 of these units must be completed as a regularly enrolled student at this university;

Note: Up to 105 quarter units of lower-division course work may be accepted as transfer credit from an accredited community college or other accredited post-secondary educational institutions.

2. At least 60 of these units must be in upper-division course work;
3. Eighty-six of these units must be in the area of general education as specified in the general education requirements, Page 59;
4. Forty-four of these units must be within the vocational arts major. All or most of these units are usually awarded as the result of the Swan Bill Evaluation of the applicants occupational and teaching experience. At least 20 of these units are counted as upper-division;
5. Thirty-two of these units must be in the area of professional education and the vocational credential courses (or their equivalent);
6. Twenty-four of these units will consist of electives;

- B. Students must earn a grade-point average of 2.0 (C) or better in all work attempted and 3.0 (B) or better in all professional education courses attempted;
- C. Students must complete the upper-division writing requirement (Education 495);
- D. Students must complete the history, constitution and government requirements (refer to Page 64);
- E. Students must be recommended for graduation by the faculty of the University.

Requirements for the Bachelor in Vocational Education (BVE) Degree:

General Education requirements (86 units)

*Vocational Arts Major (44 units), a maximum of
60 units may be awarded by Swan Bill evaluation*

Upper-division requirements (56 units)

1. EVoc 335. Introduction to Vocational Education (4)
2. EVoc 501. Principles and Methods for Teaching Designated Subjects (4)
3. EVoc 502. Instructional Support for Teaching Designated Subjects (4)
4. EVoc 503. Contemporary Issues in Teaching Designated Subjects (4)
5. EVoc 504. Principles of Adult Education (4)
6. EVoc 518. Field Work in Designated Subjects (4)
7. EVoc 519. Computer Applications for Vocational Education Teachers (4)
8. EVoc 520. Curriculum Development in Vocational Education (4)
9. Twenty-four units of electives.

COURSE OFFERINGS IN VOCATIONAL EDUCATION (EVoc)

Upper Division

335. Introduction to Vocational Education

Introduction to the history, philosophy, literature and organizations of vocational education. In-depth study of the Swan Bill application process and the Bachelor of Vocational Education degree program. *Prerequisite: sufficient work and teaching experience to qualify for a Swan Bill evaluation or consent of instructor.* (4 units)

501. Principles and Methods for Teaching Designated Subjects

Application of instructional methodology for designated subjects with emphasis on student performance objectives, lesson planning, teaching methods, educational materials, and evaluation techniques. (4 units)

502. Instructional Support for Teaching Designated Subjects

Examination of instructional support for designated subjects with emphasis on program advisory committees, student placement, facilities planning, budgeting, student organizations, public relations, career advancement and educational philosophy. *Prerequisite: Vocational Education 501 or consent of instructor.* (4 units)

503. Contemporary Issues in Teaching Designated Subjects

Examination of contemporary issues in designated subjects with emphasis on individual education plans, basic skills, school law, multicultural activities, special needs students, safety and performance assessment instruments. *Prerequisite: Vocational Education 501 or consent of instructor.* (4 units)

504. Principles of Adult Education

History, philosophy and social significance of adult education, especially in California; the adult as a student; investigation of the theories and application of the principles of adult education. (4 units)

508. Organization and Structure of Designated Subjects Programs

Investigation and application of principles of facility planning, budgeting, funding sources and related topics as they apply to designated subjects instructional programs. *Prerequisite: a valid designated subjects teaching credential.* (4 units)

509. Personnel Management in Designated Subjects Programs

Principles of personnel selection, evaluation, supervision, school law and related topics as they apply to designated subjects instructional programs. *Prerequisite: a valid designated subjects teaching credential.* (4 units)

510. Field Work in Coordination and Supervision of Designated Subjects Programs

Supervised field work in coordination and supervision of designated subjects programs. Students will contract to perform administrative tasks related to site-based instructional programs. *Prerequisites: a valid designated subjects teaching credential and completion of or*

concurrent enrollment in Vocational Education 508 and 509 or consent of instructor. (4 units)

518. Field Work in Designated Subjects

Supervised field work for the Designated Subjects Teaching Credential. Includes lesson planning and instructional delivery in an actual teaching environment with evaluation of teaching performance by the on-site supervisor. *Prerequisites or corequisite: Vocational Education 501 and consent of instructor.* (4 units)

519. Computer Applications for Vocational Education Teachers

Application of personal computers to the preparation of written and graphic materials used by teachers of vocational, occupational and professional subjects. Three hours of lecture and two hours of laboratory. (4 units)

520. Curriculum Development in Vocational Education

Theory and principles of curriculum development as they apply to vocational, occupational and professional courses. Students will develop a complete curriculum for a course that they could teach. *Prerequisite: Vocational Education 501 or its equivalent.* (4 units)

WOMEN'S STUDIES

Department of Anthropology

Faculty Office Building, Room 249
880-5502

Minor

Women's Studies

Certificate Program

Women's Studies

The University offers a minor and a certificate program in women's studies. Women's studies is an interdisciplinary area of study that uses material from several disciplines to explore women's issues and experiences. Women's studies scholarship and teaching is intended to promote an understanding of the origins and mechanisms of gender differentiation and stratification in human societies.

MINOR IN WOMEN'S STUDIES

Requirements (28 units)

Requirements for a minor in Women's Studies:

1. WStd 200. Introduction to Women's Studies (4)
2. WStd 425. Women as Agents of Social Change (4)
3. *Twenty units chosen from:*
 - A. Anth 333. Sex and Gender in Cross-Cultural Perspective (4)
 - B. Biol 314. Biology of Human Sexuality (4)
 - C. Cjus 451. Women and Crime (4)
 - D. Comm 411. Women and Communication (4)
 - E. Econ 333. Women in the Economy (4)
 - F. Eng 322A. Studies in Literary Themes, Genres or Authors: Women in Literature (4)
 - G. Eng 336. Women Writers (4)
or
WStd 336. Women Writers (4)
 - H. FJan 320Y. Masterpieces of Literature: Hispanic Women Writers (4)
 - I. Geog 330. Geography of Gender (4)
 - J. HSci 404. Women's Health Issues (4)
 - K. Hist 395T. Topics in History: Women in Chinese History (4)
 - L. Hist 513. Women in U.S. History (4)
 - M. One of the following:
 - Hum 325. Perspectives on Gender (4)
 - NSci 325. Perspectives on Gender (4)
 - SSci 325. Perspectives on Gender (4)
 - N. PlSt 381. Sex Discrimination and the Law (4)

- O. Phil 364. Philosophy of Race and Gender (4)
- P. Phil 367. Philosophy and Sexual Politics (4)
- Q. PSci 340. Sex and Politics (4)
- R. Psyc 331. The Psychology of Women (4)
- S. Psyc 349. The Psychology of Gays and Lesbians (4)
- T. Psyc 375R. Seminar in Psychology: Women and Violence (4)
- U. Soc 335. Images of Birth and Death (4)
- V. Soc 336. Black Women and Feminism (4)
- W. Soc 344. Sex Roles: The Life Cycle (4)
- X. WStd 390. Topics in Women's Studies (4)
- Y. WStd 595. Independent Study (2-5) for a maximum of (8)

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Women's Studies

Certificate requirements (28 units)

1. *Twenty-eight units chosen from:*
 - A. Anth 333. Sex and Gender in Cross-Cultural Perspective (4)
 - B. Biol 314. Biology of Human Sexuality (4)
 - C. Cjus 451. Women and Crime (4)
 - D. Comm 411. Women and Communication (4)
 - E. Econ 333. Women in the Economy (4)
 - F. Eng 322A. Studies in Literary Themes, Genres or Authors: Women in Literature (4)
 - G. Eng 336. Women Writers (4)
or
WStd 336. Women Writers (4)
 - H. FJan 320Y. Masterpieces of Literature: Hispanic Women Writers (4)
 - I. Geog 330. Geography of Gender (4)
 - J. HSci 404. Women's Health Issues (4)
 - K. Hist 395T. Topics in History: Women in Chinese History (4)
 - L. Hist 513. Women in U.S. History (4)
 - M. One of the following:
 - Hum 325. Perspectives on Gender (4)
 - NSci 325. Perspectives on Gender (4)
 - SSci 325. Perspectives on Gender (4)

- N. PlSt 381. Sex Discrimination and the Law (4)
 O. Phil 364. Philosophy of Race and Gender (4)
 P. Phil 367. Philosophy and Sexual Politics (4)
 Q. PSci 340. Sex and Politics (4)
 R. Psyc 331. The Psychology of Women (4)
 S. Psyc 349. The Psychology of Gays and Lesbians (4)
 T. Psyc 375R. Seminar in Psychology: Women and Violence (4)
 U. Soc 335. Images of Birth and Death (4)
 V. Soc 336. Black Women and Feminism (4)
 W. Soc 344. Sex Roles: The Life Cycle (4)
 X. WStd 200. Introduction to Women's Studies (4)
 Y. WStd 390. Topics in Women's Studies (4)
 Z. WStd 425. Women as Agents of Social Change (4)
 AA.WStd 595. Independent Study (2-5) for maximum of (8)

COURSE OFFERINGS IN WOMEN'S STUDIES (WStd)

Lower Division

200. Introduction to Women's Studies

An introduction to the growing body of women's studies scholarship. Includes feminist theories of gender stratification and introduces women's issues, experiences and achievements in a variety of fields. (4 units)

Upper Division

336. Women Writers

Literary analysis of selected works by women writers, with special emphasis on historical and contemporary issues of women's lives. (Also offered as English 336. Students may not receive credit for both.) (4 units)

390. Topics in Women's Studies

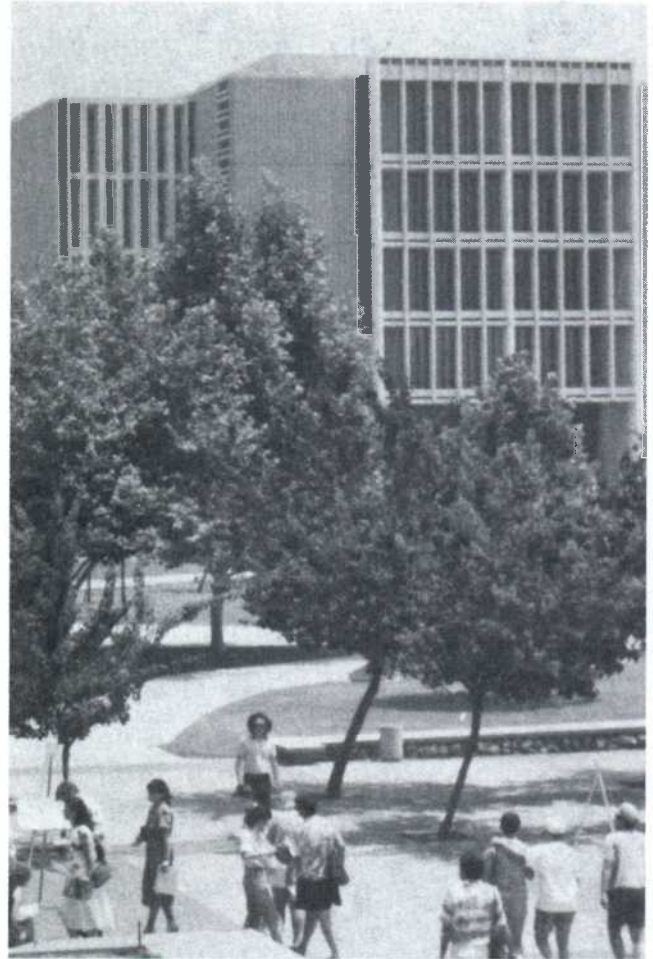
Examination of selected topics of current interest in women's studies. May be repeated for credit as topics change. (4 units)

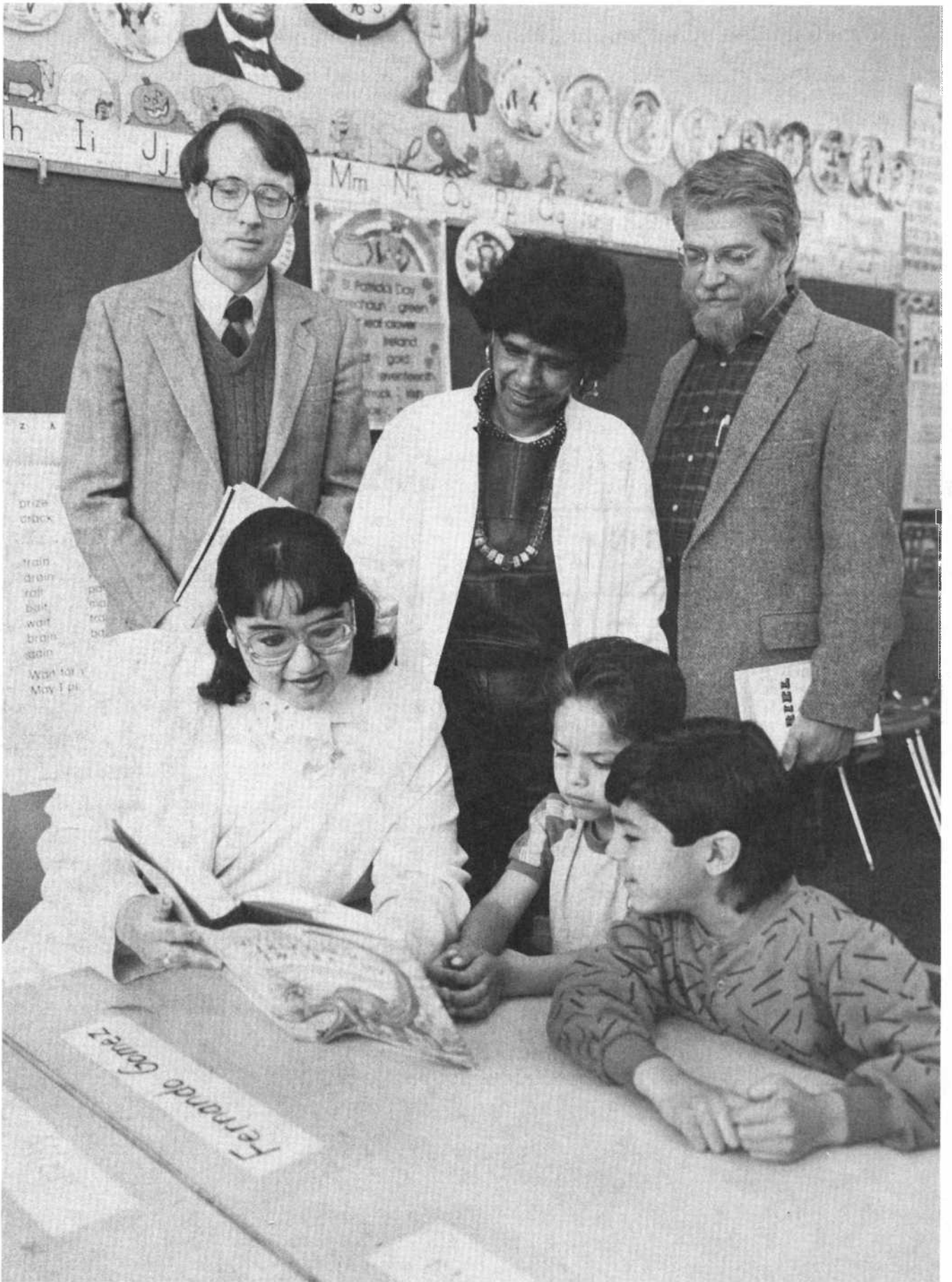
425. Women as Agents of Social Change

Historical and contemporary analysis of women as agents of social change, including responses to gender-based discrimination, consideration of feminist theories of social change and debates over desired directions for the future of societies. *Prerequisite: Women's Studies 200 or consent of instructor.* (4 units)

595. Independent Study

Investigation of special topics in women's studies that are not covered by the curricular offerings in women's studies or the cross-listed offerings from other departments. No more than 8 units of independent study may be applied toward the minor or certificate in women's studies. *Prerequisites: junior standing, consent of instructor and approval by the Women's Studies Program Committee coordinator.* (Credit to be arranged: 2 to 5 units)





Graduate Studies

Office of Graduate Studies

*Administration Building, Room 126
880-5058*

Graduate Studies is a large and growing part of the University. At any given time from a quarter to a third of the students attending CSUSB already have bachelor's degrees and are earning certificates, credentials, master's degrees, or are pursuing knowledge for their own pleasure. Graduate Studies offer varied advanced courses of study, including professional programs that lead their graduates into the world of work, and academic master's degrees preparing the student for the Ph.D. as well as advanced professional degrees, such as medicine and law. Nationally recognized and nationally accredited programs are among the Graduate Studies offerings.

Most classes are offered at convenient hours for working students. Financial assistance, research and travel funds are available, with some special financial aid programs for ethnic minorities, disabled students and women in the sciences.

The office of the Dean of Graduate Studies encourages graduate education and works cooperatively with all graduate programs to create programs of quality that respond to the needs of students and of the University's service area. Additionally, the office administers the University's Institutes, the M.A. in Interdisciplinary Studies and is responsible for the following functions for all graduate programs:

Waiver petitions for the Graduate Writing Requirement, the seven-year limit for course work, the two-year limit for thesis completion, and the 20-unit limit for classification.

Advancement to Candidacy

Course overloads

Changes in Study Plan

Petitions by all unclassified post-baccalaureate students

The CSUSB Student Research Competition

The Graduate Equity Fellowship Program

The California Pre-Doctoral Program

The University offers the following graduate programs culminating in master's degrees:

- Biology, M.S.
- Business Administration, M.B.A.
- Criminal Justice, M.A.
- Education, M.A.
- Educational Administration, M.A.
- English Composition, M.A.
- Health Services Administration, M.S.
- Interdisciplinary Studies, M.A.
- Mathematics, M.A.T.
- National Security Studies, M.A.
- Psychology, M.A., M.S.
- Public Administration, M.P.A.
- Rehabilitation Counseling, M.A.
- Social Sciences, M.A.
- Social Work, M.S.W.

Graduate programs at the University are designed to serve a variety of needs. Some students pursue an advanced degree or a credential program in a professional area to enhance their career mobility; others, to expand their knowledge and understanding and to pursue research in a chosen discipline. The University provides for the part-time student, as well as the full-time student, by offering appropriate course work and research opportunities during the day, late afternoon and evening throughout the calendar year.

The **M.S. in Biology** provides further study in various biological concentrations. The unique environmental setting of the campus allows for special emphasis on desert and mountain ecological studies.

The School of Business and Public Administration offers a **Master of Business Administration (M.B.A.)** and a **Master of Public Administration (M.P.A.)**. Both degrees are broad programs designed to provide flexibility for the student to prepare for a career in administration in the private or public sector.

The **M.A. in Criminal Justice** is designed to serve the growing number of individuals in the criminal justice system who desire postbaccalaureate education, as well as those in more traditional public and private employment who may wish to acquire further education in criminal justice. The degree program offers two options. One is a thesis option designed for students who intend to pursue graduate studies beyond the M.A. level and those students who have special research interests in the criminal justice system. The examination option is designed for students with administrative and management goals.

The **M.A. in Education** offers options in bilingual/cross-cultural education, counselor education, elementary and secondary education, English, history and physical education (for secondary teachers), reading, special education and vocational education. The School of Education also offers credential programs designed to prepare students to teach in a variety of settings. In addition to the multiple, single and designated subjects credentials, specialist and services credential programs also are available.

The **Educational Administration M.A.** program prepares individuals to assume leadership roles in school administration, school business management, curriculum development, and supervision of personnel and instruction.

The Department of English offers an **M.A. in English Composition**. The program is designed for individuals interested in pursuing studies in the teaching of composition and is also of benefit to those who need expertise as writers of grants, interpreters of public policy and editors.

The **M.S. in Health Services Administration** is designed to meet the need for professionals trained in the management and planning of health care

services. The program has three major objectives: (1) to enable students to integrate health science, health services, management and planning skills; (2) to develop the ability to conduct independent research; and (3) to provide the intellectual stimulation and scholarly atmosphere aimed at developing leaders in the field.

An **M.A. in Interdisciplinary Studies** allows a student with unusual educational or vocational objectives to draw from several departments to meet a specific need. Information on this program is available from the dean of graduate studies.

The **M.A. in National Security Studies** is a professionally oriented interdisciplinary program designed for those who desire to understand the principles of strategic planning, arms control and defense policy analysis in relation to the contemporary international environment. The program is offered on campus, at George Air Force Base and at March Air Force Base.

The Department of Psychology offers an **M.S. in Psychology** with an area of concentration in counseling, in addition to an **M.A. in Psychology** with three areas of specialization: general, industrial-organizational and life-span developmental.

The **M.A. in Rehabilitation Counseling** is a two-year professional program preparing students to be certified rehabilitation counselors who will work with a wide variety of disabled persons in different settings preparing them for job placement.

The **Master of Arts in Teaching** with a major in **Mathematics** is for those who want to study math, but whose career goals are best met by a curriculum that includes a teaching component.

The **M.A. in Social Sciences** is designed primarily for secondary school teachers of social studies who wish to expand or update their knowledge of the social sciences. The program emphasizes the fields of greatest importance to secondary school teaching, but electives allow the student to sample the breadth of the social sciences.

The **Master of Social Work (M.S.W.)** prepares professional social work practitioners who are committed to understanding and serving those most in need of help.

Detailed requirements of each program are listed alphabetically by department in the graduate studies section.

Latest details on the status of new programs may be obtained from the appropriate school or department or from the Office of the Dean, Graduate Studies.

General Requirements for Admission

The basic requirements for admission of postbaccalaureate and graduate students to the California State University, San Bernardino are determined by the Board of Trustees of The California State Uni-

versity and are stated in Title 5, Chapter 1, Subchapter 3 of the California Code of Regulations.

Specifically, a student admitted with unclassified postbaccalaureate standing must: (1) have earned an acceptable baccalaureate degree at an institution accredited by a regional accrediting association or have completed equivalent academic preparation, (2) have attained a grade-point average of at least 2.5 in the last 60 semester units (90 quarter units) attempted, and (3) have been in good standing at the last college attended.

Applicants who do not qualify for admission under the provisions cited above may be admitted by special action if, on the basis of acceptable evidence, they are judged to possess sufficient academic, professional and other potential to merit such action. Petitions for admission by special action should be directed to the associate dean, academic services.

Categories of Admission

Graduate and postbaccalaureate applicants may apply for a degree, a credential or certificate, or may not have a program objective. Depending on their objective, an applicant seeking admission to postbaccalaureate and/or graduate study at the University must be accepted in one of the following categories:

Unclassified Postbaccalaureate Standing.

Students wishing to enroll in courses at the University with a professional growth objective, but not necessarily with an objective of a graduate degree or a teaching credential, may be considered for admission with unclassified postbaccalaureate standing when they meet standards specified under General Requirements. No more than 20 units of credit earned in unclassified standing may be used to demonstrate fitness to complete the program or may be counted toward meeting requirements for a graduate degree. Such units will be accepted only upon approval of the department in which the student is taking a degree. **Admission to the University with unclassified postbaccalaureate standing does not constitute admission to credential or graduate degree programs.**

Classified Postbaccalaureate Standing (including Teaching Credentials). Students who have satisfied the general requirements for admission may be granted classified standing for the purpose of enrolling in a particular postbaccalaureate credential or certificate program. They must also satisfy such additional professional, personal, scholastic and other standards as are prescribed for the program, including qualifying examinations.

Postbaccalaureate students interested in working toward a multiple subjects credential, a single subject credential, a services credential or a specialist credential must achieve classified standing. Credential candidates should check credential requirements for minimum grade point average with the

appropriate credential program found in the education program section beginning on Page 138.

Information concerning admission requirements for the designated subjects credentials may be obtained from the Credentials Office (Pfau Library Building, fifth floor) or from the designated subjects coordinator.

Conditionally Classified Graduate Standing.

Students who have satisfied the general requirements for admission, but who have deficiencies in prerequisite preparation which can be met by specified additional preparation, including qualifying examinations, may be admitted to a graduate degree curriculum with conditionally classified graduate standing. These deficiencies must be corrected in the specified manner in order for a student to continue in the graduate degree program.

Classified Graduate Standing. Students who have satisfied the general requirements for admission may be admitted to a graduate degree program as classified graduate students, if they satisfactorily meet the professional, personal, scholastic and other standards for admission to the program, including qualifying examinations, and if they have removed deficiencies in the specified manner while in conditionally classified graduate standing. Only those students who show promise of success and fitness will be admitted to graduate degree programs, and only those who continue to demonstrate a satisfactory level of scholastic competence and fitness shall be eligible to continue in such programs.

Admission of Graduates with Three-Year Baccalaureate Degrees from Foreign Universities

Applicants for graduate study who have completed baccalaureate degrees at foreign universities which require at least 15 years but less than the equivalent of 16 years of formal education must complete 45 quarter units of additional work upon admission to California State University, San Bernardino. Thirty of the 45 units taken as an unclassified postbaccalaureate student must come from courses in the Schools of Humanities, Social and Behavioral Sciences and Natural Sciences that are included in the University's general education requirements; 24 units must be taken outside the category of the major. The exact allocation of units by category must be approved by the student's graduate program coordinator and the dean of graduate studies. The other 15 units may, if appropriate, be used to satisfy the prerequisites for the student's intended major.

TOEFL and TWE Requirement

All graduate and postbaccalaureate applicants, regardless of citizenship, whose preparatory education was principally in a language other than English must demonstrate competence in English. Those who do not possess a bachelor's degree from a postsecondary institution in a country where English is the principal language of instruction must receive a minimum score of 550 on the Test of English as a Foreign Language (TOEFL), and a minimum score of 4 on the Test of Written English (TWE). Individual campuses may require a higher score.

Admissions Procedures

1. All students, including graduating seniors from this University, who plan to enroll as postbaccalaureate or graduate students for the first time during any regular academic quarter (fall, winter or spring), must file a formal application for admission and a \$55 nonrefundable application fee.

2. Former graduate students of the University must apply for readmission if: (a) they have been absent for more than two quarters (excluding summer sessions) immediately preceding the quarter for which readmission is sought, or (b) they have attended other colleges during their absences from California State University, San Bernardino. Students who have attended other colleges during their absences must submit official transcripts from those institutions. Students who have been absent for three quarters or more must again pay the \$55 application fee. (Students in good standing may be readmitted to the University after an absence of two quarters by filing a returning student code sheet, available in the Admissions Office.)

3. Students who plan to complete all of their work for an advanced degree in summer sessions must still apply for classified standing and advancement to candidacy at the appropriate time; and to become classified, students must file a formal application for admission to the University.

Requests for information regarding admission to the fall, winter or spring quarters and all completed application materials should be directed to the Office of Admissions, California State University, San Bernardino; Attention: Graduate Admissions.

The University begins accepting applications from new and readmitted students on November 1 for the following fall quarter, June 1 for the following winter quarter and August 1 for the following spring quarter. Applicants for postbaccalaureate programs are limited to the choice of a single campus on each application. If postbaccalaureate applicants wish to be considered by more than one campus, they must submit separate applications and fees to each.

Requirements for a Master's Degree Program

The following standards apply to all master's degree approved graduate programs:

1. The program must include at least 45 quarter units of upper-division and graduate course work (i.e., courses numbered 300-699) taken while in postbaccalaureate standing. At least half of this work must be in courses organized primarily for graduate students.

2. The program must include 32 or more quarter units of course work taken in residence on this campus. Work taken in summer session on this campus may be counted as residence credit. Credit by examination and credit for extension work are not considered as residence study.

3. The program may not include more than 13 quarter units in extension and transfer credit from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

4. The program must follow the department curriculum in effect at the time the student is officially admitted (classified) in the major program or at the time the program is filed in the Office of the Dean of Graduate Studies. Recommendations for any substitutions to the program must be approved in writing by the advisor and attached to the program.

5. The program course work must be completed with a minimum grade-point average of 3.0 (B). In addition, candidates must also maintain a minimum grade-point average of 3.0 (B) in all postbaccalaureate work undertaken at California State University, San Bernardino *and/or transfer work* following admission to classified graduate standing.

6. The program must include only courses with grades of "C" (2.0) or better. [Grades of "C-" (1.7) or less cannot be used.]

7. The program may not include more than 20 quarter units of work taken in unclassified status or before classified status was attained.

8. The program must be completed within a seven-year period. No more than seven years may elapse between the time of registration for the earliest course listed on the program and the completion of all requirements for the degree.

9. Courses numbered 100 to 299 and in the 800 series cannot be applied toward a master's degree. Courses taken to satisfy quantitative or qualitative deficiencies cannot be applied toward a master's degree.

10. A course taken at another college with a grade such as CR, S, or P cannot be accepted on a master's degree study plan unless such a course with such a grade is accepted by that college or university toward a graduate degree.

11. Graduate writing requirement: Graduate students will be required to pass (or to have passed)

the upper-division writing requirement before advancement to candidacy, unless an earlier completion is specified for a particular program.

This requirement can be satisfied through one of three means:

1. Completion, with a grade of C or better, of one of the following courses: Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495, or Social Sciences 495 (all graduate and postbaccalaureate students, regardless of citizenship, whose preparatory education was principally in a language other than English and have a minimum score of 550 on the TOEFL and 4 on the TWE who fail to achieve a grade of "C" or higher in one of the 495 courses will be required to pass English 300 with minimum passing grade of "C" before being readmitted into any 495 class);
or
2. Completion, with a grade of C or better, of an equivalent advanced expository writing course at another college or university;
or
3. Satisfactory completion of the Writing Requirement Exemption Examination (WREE) offered at this University.

Further information about the WREE examination (for example, how much it costs, when it is offered, what it covers) is available from the Counseling and Testing Center, Physical Sciences Building, Room 227 (880-5040). Contact the Office of the Dean of Graduate Studies (880-5058) for questions about the upper-division writing requirement as it relates to postbaccalaureate students.

Advancement to Candidacy

Students pursuing an advanced degree through the University should, before completing 20 quarter units toward the degree, prepare and file an official document titled "an approved graduate program" with the department from which they plan to receive the degree. This program lists the specific requirements to be completed before the degree can be awarded. It must be approved by the student's major advisor, the chair of the student's major department and the dean of graduate studies. Once the program is accepted and approved, the student is officially advanced to degree candidacy.

Standards for Graduate Study

In general, graduate study deals with more complex ideas and demands more sophisticated techniques, searching analysis and creative thinking than undergraduate study. Extensive research is required in both primary and secondary sources, and high quality writing is expected. The student is advised to consider these factors when deciding the amount of course work to be undertaken dur-

ing any one quarter. Postbaccalaureate students will be held to all prerequisites for all courses.

Students are required to maintain the following grade-point averages according to their postbaccalaureate or graduate standing.

Students in classified or conditionally classified graduate standing must maintain a 3.0 grade-point average in all course work attempted.

Students in classified postbaccalaureate standing must maintain grade-point averages appropriate to their credential program. GPA requirements for the various credential programs are listed below:

Basic teaching credentials, single or multiple subject, require a 3.0 GPA with no grade lower than a B- in all work attempted with the exception of the designated subjects credential which requires a 2.5 GPA in all work.

Specialist or services credentials require a 3.0 grade-point average in all work attempted.

Academic Probation: Failure to maintain the appropriate grade-point average will result in the student's being placed on probation. Students on probation must rectify their grade-point deficiencies by the end of the quarter of notification of probationary status, or they automatically will be disqualified and placed in unclassified postbaccalaureate status. To apply for reinstatement to a graduate degree or credential program after disqualification, the student must petition the appropriate program committee.

A student who has been disqualified from a master's degree program may be admitted to another program only on the recommendation of the department to which the student has applied and with the approval of the dean of graduate studies.

Students in unclassified postbaccalaureate standing and students seeking a second bachelor's degree must maintain a 2.5 GPA in all work attempted. Students in this category who are dismissed from the University for failure to maintain these standards must petition the associate dean, academic services for readmission to the University.

Academic Load

The normal academic load for postbaccalaureate or graduate students is 8-10 quarter units (weighted units) as used to determine veteran certification (see table on Page 320). To enroll in more than 16 units in any one quarter, a student must have written approval of the advisor and the dean of graduate studies. Students who must work to support themselves, who have time-consuming family responsibilities, who commute long distances, or who are in other difficult circumstances should, in conjunction with their advisors, weigh these factors and alter their course loads accordingly. Financial aid recipients should consult the Financial Aid Office.

Late Registration

The dates of late registration each term will be announced in the class schedule. The University calendar, Pages 4-5, lists registration dates. Late registrants may find themselves handicapped in arranging their programs due to closed classes. A \$25 late registration fee is required.

Adding Classes

Students who participate in Computer-Assisted Registration may add classes during priority drop/add. (See the class schedule for specific dates.) Beginning with the first day of the late registration period, all students may add classes, subject to appropriate approvals, continuing up to and including the last day to add classes. (See the class schedule.)

Grievance Procedures

Information concerning academic or nonacademic matters may be obtained from the Office of the Associate Dean, Academic Services. Generally, a grade grievance must be initiated by the student within no more than 40 calendar days after the grade is recorded. The complete policy statement is available from the Office of the Associate Dean, Academic Services.

Election of Graduation Requirements

A student remaining in continuous attendance in regular sessions and continuing in the same graduate curriculum in the University may, for the purposes of meeting graduation requirements, elect to meet (1) those requirements in effect at the time the student is admitted into a formal graduate program and enters the curriculum, or (2) those requirements in effect at the time of graduation from the University. Substitutions of or for discontinued courses may be authorized or required by the department or school graduate committee and by the dean of graduate studies.

Two Master's Degrees

Students who wish to secure two different master's degrees may do so. No more than 10 quarter units used for one degree may be counted as part of the second degree, and then only by petition submitted to and approved by the concerned program committees or department or school graduate committees and the dean of graduate studies. In no case shall a student be awarded a given master's degree more than once.

Thesis

Students enrolled in degree programs requiring a thesis should contact the Office of the Dean of

Graduate Studies for information regarding preparation of the manuscript, format and style, number of copies and so forth.

Graduation Requirement Check

Candidates for degrees to be awarded at the end of a regular quarter or summer session must request a graduation requirement check at the Office of Admissions prior to completing their academic work at the University. Advancement to Candidacy is needed before the graduation check can be completed.

Deadlines and fees for filing are published in the catalog and in the class schedule.

Students not completing their degree in the term applied for will need to refile and pay for the later term.

Change in Approved Graduate Program

If during graduate study a master's candidate wishes to change the approved program by adding or removing a course, this may be done under certain circumstances. A request for such a change must be initiated by the student and approved by the graduate advisor, the department chair and the dean of graduate studies.

Phi Kappa Phi

The University has an active chapter of the national honor society of Phi Kappa Phi, whose purpose is the recognition and encouragement of superior scholarship in all academic disciplines. Membership is by invitation issued to selected juniors, seniors and graduate students who have excelled in scholarship and who meet the chapter's requirements.

Concurrent Enrollment

A graduate student enrolled at the University may enroll concurrently for additional courses at another institution only with advance written approval from the graduate advisor and the dean of graduate studies. Ordinarily, permission will not be granted when the study load in the proposed combined program exceeds 12 quarter units.

Postbaccalaureate Credit for Seniors

All course work (numbered 300 or above) completed in the final quarter before graduation that is not required for the bachelor's degree will automatically be considered postbaccalaureate credit unless the student petitions otherwise. Petitions are available in the Admissions and Records Office.

Credit by Evaluation (Examination)

A graduate program, while building upon course work previously completed, should be used to acquire new knowledge and skills. Acquisition of units through credit by evaluation, on the other hand, relies inherently on old knowledge and skills. Therefore, prerequisite courses and other requirements outside of the formal program may be challenged, but units gained through credit by evaluation cannot be included within the formal program of study.

In cases where a graduate student may possess the necessary knowledge and skill and wishes to challenge a course within the formal program of study, a petition must be submitted sequentially to the instructor of the specific course, the department or school graduate committee, and the Committee on Graduate Education. Contingent on approval of the petition by the Committee on Graduate Education is the condition that an additional course be added to the formal program as elective credit to replace each course that is successfully challenged through credit by evaluation.

Students may not enroll in a course they plan to challenge but must register for credit by examination in the office of the school or department concerned before the first day of classes of the term in which the course is offered. Some presumptive evidence is required to indicate that the student has a reasonable chance of passing the examination. The student must complete the examination within the first two weeks of the term. Those students who are unsuccessful in challenging may add the course subject to the regulations for adding a class printed in the quarterly class schedule. A student who passes an examination is given the grade of CR for that course. No official record is made of failures in these examinations. No fee is charged for these examinations, though they are available only to currently enrolled students.

Repeat of Courses

Classified and conditionally classified graduate students may be permitted to repeat a course taken as an undergraduate once with approval of the advisor and only to remove a deficiency. A subsequent repeat must be approved by the school or department graduate committee. In no case shall such credit be counted toward the units required for a master's degree. The last grade earned shall apply toward the student's cumulative postbaccalaureate GPA and shall not replace the grade in the undergraduate record.

Classified and conditionally classified graduate students may be permitted to repeat a course at CSUSB that was taken for graduate credit only by petition to and approval of the school or department graduate committee. The last grade earned

will apply to the student's cumulative postbaccalaureate GPA.

Classified postbaccalaureate students (for example, students officially admitted to teaching credential programs) may be permitted to repeat a course taken as an undergraduate only by petition to and approval of the appropriate school or department committee and the grade earned shall not replace the grade in the undergraduate record. Courses taken for postbaccalaureate credit may be repeated at CSUSB only by petition to and approval of the appropriate school or department committee. In both cases the last grade earned shall apply to the student's cumulative postbaccalaureate GPA.

Unclassified postbaccalaureate students may be permitted to repeat a course taken as an undergraduate. However, the grade earned shall not replace the grade in the undergraduate record. Unclassified postbaccalaureate students who are taking courses that are *not part of a graduate degree program and who are not pursuing any degree objectives* are subject to the same repeat of courses regulations as undergraduates. Courses taken for postbaccalaureate credit by an undergraduate as defined under "Postbaccalaureate Credit for Seniors," may be repeated at CSUSB only by petition to and approval of the dean of graduate studies. In both cases, the last grade earned shall apply to the student's postbaccalaureate GPA.

Students in any category may be permitted to repeat one course at CSUSB that was taken for graduate credit (i.e., that is applied towards the M.A. or M.S. degree) one time. This is done only by petition to and approval of the school or department graduate committee. When approved, the original course grade on the student's permanent record card will be lined through. Only the last grade earned shall apply to the student's cumulative postbaccalaureate GPA.

Unless expressly allowed, credit may not be awarded for a course that has been previously completed, either at California State University, San Bernardino, or elsewhere, unless a petition is filed to discount the first attempt.

Transcripts

Applicants for unclassified postbaccalaureate standing must furnish official transcripts from *each* college or university attended. A separate transcript from each college or university is required even though one transcript may show work taken at another institution.

Applicants for classified postbaccalaureate standing (teaching credentials), or conditionally classified and classified graduate standing must furnish *two* official transcripts from each institution attended.

Students who attend summer sessions only need not file transcripts *unless* they plan to earn degrees or credentials at California State University, San Bernardino.

Admission of Summer Session Students

The University normally offers course work at all levels in its summer sessions, but enrollment in a summer session does not constitute admission to the University. Summer session students can pursue postbaccalaureate course work as unclassified students, but to become classified students they must file a formal application for admission to the University. Although resident study is highly desirable, some students may be able to complete degree programs through summer study only.

Admission from Nonaccredited Schools

Graduates of nonaccredited schools who give evidence of unusual promise and superior background may petition the associate dean of academic services for admission as unclassified postbaccalaureate students. Such students who wish to enter a specific graduate program must then petition the appropriate school or department for admission to conditionally classified graduate status. Requirements for admission to conditionally classified status shall be determined by the concerned department and approved by the Committee on Graduate Education.

Limitations of Enrollment

Entrance of postbaccalaureate students to any program may be subject to limitations (i.e., each master's degree or credential program may restrict enrollment whenever limitations of facilities and/or staff warrant).

Veterans Information and Enrollment Certification

California State University, San Bernardino, is approved for the training of veterans of the military services and their dependents under educational assistance programs, established by the state and federal governments. Applications for educational benefits may be obtained directly from the veterans certification clerk in the Registrar's Office.

Student enrollment certification is based on the following unit loads:

- Full time 12 weighted units determined as follows:
 - 500- and 600-level course weighted at 1.5 units
 - 300- and 400-level course weighted at 1.0 units
 - 100-200 no certification unless course is stated condition for admission to a graduate program

- ¼ time 9.0 to 11.5 weighted units as determined above
- ½ time 6.0 to 8.5 weighted units as determined above

The University will certify course loads to the Veterans Administration based on the criteria above for units which are degree or objective applicable. Veterans enrolled less than half time are eligible for reimbursement of tuition and fees only.

Independent study and self-paced courses will be certified for monthly educational benefits when the student is concurrently enrolled in residence and independent study courses. The independent study and self-paced courses will be reported at full value up to a maximum of five units. Students enrolled in independent study or self-paced courses exclusively are eligible for reimbursement of tuition and fees only.

BIOLOGY

Master of Science in Biology

Department of Biology

*Biological Sciences Building, Room 217
880-5305*

MASTER OF SCIENCE IN BIOLOGY

Requirements (45 units)

The Master of Science in Biology is designed to provide the flexibility required to develop specific course programs and acceptable thesis research proposals based upon the individual graduate student's interests and background. The general goal of the program is to provide the student with opportunity for improvement of competence, development of the ability to continue self-directed study, and development of intellectual responsibility in preparation for professional leadership in biology.

The graduate program in biology provides training in various concentrations of current research interest in genetics, physiology, immunology, molecular biology, parasitology and desert and mountain ecology.

Admission to the M.S. Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A baccalaureate degree from an accredited college or university;
2. Completion of an undergraduate major in biology or associated fields (e.g., microbiology, botany, zoology or chemistry with at least 30 quarter units of biology course work);
3. Adequate preparation in chemistry at the college level, including courses in organic chemistry; quantitative analysis is recommended;
4. Two full-term courses in physics at the college level;
5. One full-term college level course in precalculus, statistics or higher mathematics.

Students who do not meet these criteria may petition the Biology Department Graduate Committee through the Graduate Program Coordinator and may be admitted as conditionally classified graduate students. These students will remain in this status until the deficiencies as determined and stated by the Biology Department Graduate Committee are rectified.

Advancement to Candidacy

In order to be advanced to candidacy, the student must have:

1. Satisfied the State of California upper-division writing requirement by passing either Natural Sciences 495 or the CSUSB writing requirement examination;
2. Achieved classified status;
3. Been accepted by a major advisor from the Department of Biology, if a thesis project is selected;
4. Completed at least 15 quarter units of work applicable to the degree program as a graduate student at this university with the approval of the Department of Biology Graduate Committee, and with a minimum grade point average of 3.0;
5. Gained a recommendation for advancement to candidacy from the Department of Biology graduate committee;
6. Submitted a formal program of graduate course work prepared in consultation with and approved by the Department of Biology graduate committee and/or the major advisor;
7. Gained final approval of the program and of the candidacy itself by the dean of graduate studies.

Requirements for Graduation

1. A minimum of 45 quarter units of acceptable graduate-level work included in the formal program, with no less than 32 units completed in residence at this university and with at least 24 units gained from 600-level courses in biology;
2. Advancement to candidacy for the degree and approval of the specific program of courses;
3. A grade-point average of 3.0 (B) in all graduate course work fulfilling the requirements of the Master of Science in Biology and grades of "C" (2.0) or better in all courses in the program;
4. Completion of a final oral examination concluded by acceptance of the thesis; or satisfactory completion of the alternative;
5. Any additional general requirements not cited above and listed on Page 316.

Department Graduate Committee and Major Advisor

The Department of Biology Graduate Committee consists of the graduate program coordinator and two or more faculty members. This committee has general supervision over the work of students progressing toward the master's degree, and will determine whether students are adequately prepared for graduate study in biology.

Each new graduate student should consult with the graduate program coordinator for advice in selection of the appropriate graduate program. Students choosing to complete a thesis are responsi-

ble for selecting their major advisor and, in turn, must be accepted by the major advisor. The major advisor in consultation with the student will develop a program of specific courses and an acceptable thesis research proposal based on the student's interests, abilities and preparation. The major advisor will direct the thesis research. The program of courses and the thesis topic, as well as any subsequent modification of these, are subject to approval by the Department of Biology graduate committee and the dean of graduate studies.

Students following the non-thesis program should consult directly with the Department of Biology graduate program coordinator.

Students currently enrolled in the graduate program wishing to take courses off campus and include them in the degree program must petition the Department of Biology for approval either through the graduate program coordinator or the major advisor, otherwise the course may not be accepted as part of the program. 800-level extension courses are not applicable to the graduate program.

300-level courses taken will be accepted only by written approval of the department. 300-level courses are seen as support courses and therefore are not generally applicable to the graduate degree program.

Courses taken to satisfy quantitative or qualitative deficiencies cannot be applied toward a master's degree.

Thesis and Final Oral Examination Program

Students electing this program, Plan I below, must conduct an original research study and from these efforts write a thesis acceptable to the major advisor, the department graduate committee and the dean of graduate studies. The student should consult the Department of Biology for details on preparing the thesis manuscript.

A final oral examination consisting primarily of discussion of the thesis and thesis research is required. The official examiners are the major advisor, the department graduate committee, and a representative from outside the Department of Biology chosen by the dean of graduate studies. Successful completion of the final oral examination includes acceptance of the thesis by the examiners.

Available research areas include:

- Developmental biology
- Ecology
- Genetics
- Molecular biology
- Parasitology
- Physiology
- Population biology

For possible combinations of areas or other areas consult with the Department of Biology.

Non-thesis Alternative Program

Students pursuing this alternative are required to pass the Biology Department graduate comprehensive examination in addition to the completion of required course work selected from four major curricular areas in biology as described in Plan II below. This requirement serves to provide breadth of background at an advanced level for the student not electing a thesis. Satisfactory completion of the Plan II must be certified by the Department of Biology graduate committee before graduation from the program is possible.

Degree Requirements (45 units)

Plan I (Thesis and Final Oral Examination Program)

1. Biol 690. Graduate Seminar in Biology (2)
2. Biol 699A. Thesis Research and Thesis (3)
3. Biol 699B. Thesis Research and Thesis (3)
4. Biol 699C. Thesis Research and Thesis (3)
5. *Fourteen units, with at least two units chosen from each area (A,B,C,D) below:*
 - A. Biol 600. Advanced Topics in Molecular Biology (2)
 - Biol 624. Advanced Topics in Physiology (2)
 - Biol 676. Advanced Topics in Microbiology and Immunology (2)
 - B. Biol 620. Advanced Topics in Plant Biology (2)
 - Biol 670. Advanced Topics in Ecology (2)
 - Biol 675. Advanced Topics in Parasitology (2)
 - C. Biol 650. Advanced Topics in Genetics (2)
 - Biol 660. Advanced Topics in Development (2)
 - D. Biol 664. Biosystematics (2)
 - Biol 680. Advanced Topics in Evolution (2)
6. *Twenty units of electives to be chosen from biology or related courses at the 600-, 500- and 400-levels.*
7. Attendance of at least one per quarter Biology Department graduate presentation or selected colloquium, until the thesis has been defended satisfactorily.

Plan II (Non-thesis Alternative Program)

1. Four units of:
 - Biol 690. Graduate Seminar in Biology (2)
2. *Twenty-two units, with at least four units chosen from each area (A,B,C,D) below:*
 - A. Biol 600. Advanced Topics in Molecular Biology (2)
 - Biol 624. Advanced Topics in Physiology (2)

- Biol 676. Advanced Topics in Microbiology and Immunology (2)
- B. Biol 620. Advanced Topics in Plant Biology (2)
- Biol 670. Advanced Topics in Ecology (2)
- Biol 675. Advanced Topics in Parasitology (2)
- C. Biol 650. Advanced Topics in Genetics (2)
- Biol 660. Advanced Topics in Development (2)
- D. Biol 664. Biosystematics (2)
- Biol 680. Advanced Topics in Evolution (2)
3. Nineteen units of electives to be chosen from biology or related courses at the 600-, 500- and 400-levels.
4. Upon completion of all course work, attendance of at least one per quarter Biology Department graduate presentation or selected colloquium, until the comprehensive examination has been passed.
5. Successful completion of the Department of Biology Comprehensive Examination.

COURSE OFFERINGS IN BIOLOGY (Biol)

Upper Division

522. The Genetics and Ecology of Populations

Genetic and ecological mechanisms influencing the development, maintenance and evolution of populations. Four hours lecture. *Prerequisites: Biology 421 and 422, or 423.* (4 units)

553. Physical and Chemical Limnology

Physical and chemical characteristics of lakes and streams as related to activities of the natural biota, environmental factors and the geological substratum. Laboratory work primarily related to the standard chemical analysis of natural waters and studies of various physical parameters. Two hours lecture and six hours laboratory. *Prerequisites: Biology 200, 201, 202, 450 and Chemistry 217 or 245.* Recommended: a field course in geology. (4 units)

554. Biology of Aquatic Populations

Dynamics of aquatic populations, with consideration of the influence of environmental factors on their activities. Laboratory dealing with construction of quantitative models applicable to the study of aquatic populations. Two hours lecture and three hours laboratory. *Prerequisite: Biology 450.* Recommended: courses in aquatic plant biology, invertebrate biology and vertebrate biology. (3 units)

575. Internship in Biology

Supervised work and study in work situations involving biological research and technical skills. May be applied only once toward degree electives in biology programs. May be repeated twice for free elective credit. Graded

credit/no credit. *Prerequisite: department approval in the quarter prior to registration.* (2 units)

590. Senior Seminar

Survey of current literature, methods and ethics of scientific inquiry. May be repeated once as topics change. *Prerequisites: Biology 200, 201, 202, and a minimum of 15 upper-division biology courses supportive of the topic area and senior standing.*

- A. Molecular (2 units)
- B. Biosystematics (2 units)
- C. Cellular (2 units)
- D. Physiology (2 units)
- E. Ecology (2 units)
- F. Animal Use (2 units)
- G. Genetics (2 units)
- H. Evolution (2 units)
- I. Microbiology (2 units)
- J. Zoology (2 units)
- K. Botany (2 units)

595. Independent Study

Laboratory and/or library research in selected areas in biology conducted under the direction of a faculty member. A total of six units in Biology 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and department approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* Consent must be obtained no later than the advisement period preceding the quarter of enrollment. All students will be required to attend the Biology Department colloquium called by the department chair each quarter until their projects are completed. (Credit to be arranged: 1 to 6 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Advanced Topics in Molecular Biology

An in-depth consideration of selected research areas in molecular biology. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2 units)

605. Advanced Topics in Cell Biology

An in-depth consideration of selected research areas in cell biology. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2 units)

620. Advanced Topics in Plant Biology

An in-depth consideration of selected areas of current study in plant biology. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2 units)

624. Advanced Topics in Physiology

An in-depth consideration of selected research areas in physiology. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2 units)

650. Advanced Topics in Genetics

An in-depth consideration of selected research areas in genetics. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2 units)

660. Advanced Topics in Development

An in-depth consideration of selected research areas in developmental biology. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2 units)

664. Biosystematics

Fundamental concepts of classification systems, biometric and experimental taxonomic procedures, nomenclature and systematic literature; both plant and animal materials used. *Prerequisite: Biology 421 and 422, or 423 and one taxonomy-based course; e.g. Biology 319, 331, 335, 342, 353, 354 or 464.* Recommended: Mathematics 305 or 350. (2 units)

670. Advanced Topics in Ecology

Literature survey of specific topics related to community or ecosystem dynamics. May be repeated for credit as topics change. *Prerequisite: Biology 450 or equivalent.* (2 units)

675. Advanced Topics in Parasitology

An in-depth consideration of selected research areas in parasitology. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2 units)

676. Advanced Topics in Microbiology and Immunology

An in-depth examination of current research in selected areas of immunobiology and immunology of microbial infections. May be repeated for credit as topics change. *Prerequisites: Biology 220 and 476.* (2 units)

680. Advanced Topics in Evolution

Topics of current research interest in plant or animal evolution. May be repeated for credit as topics change. (2 units)

690. Graduate Seminar in Biology

Selected topics and reviews of current investigations in the fields of biology. Required of all graduate students in biology. May be repeated for credit as topics change. (2 units)

698. Extended Enrollment

Independent study leading to completion of requirements (other than course work) for the master of science degree. Students enrolled in this course have full use of university facilities. To retain their classified standing in the master's program, students enrolled in this course must attend the Biology Department colloquium called by the department chair each quarter until their projects are completed and their theses accepted. *Prerequisites: advancement to candidacy and consent of department.* (0 units)

699. Thesis Research and Thesis

Independent graduate research conducted under guidance of the major advisor and resulting in a thesis. Biology 699A, 699B, and 699C must be completed for a total of 9 units. To retain their classified standing in the master's program, students enrolled in this course must attend the Biology Department colloquium called by the department chair each quarter until their projects are completed and their theses accepted. *Prerequisite: advancement to candidacy.*

- A. (3 units)
- B. (3 units)
- C. (3 units)

BUSINESS ADMINISTRATION

Master of Business Administration

with concentrations in:

Finance
Management and Human Resources
Information Management
Marketing Management
Professional Accounting
Taxation

School of Business and Public Administration

Administration Building, Room 140
880-5700

MASTER OF BUSINESS ADMINISTRATION

Requirements (48 units)

The Master of Business Administration (M.B.A.) is a broad program designed to provide flexibility for the student to prepare for a career in administration in the private sector. The major objectives are to provide the student with the tools of decision-making, an understanding of the total administrative system, a capability for understanding interrelationships, and specialized training in a functional field of administration.

The program is open to all qualified students, regardless of undergraduate major. Students who do not have a background in the area of business administration can obtain this required capability by completing designated prerequisite courses or through individual study with competency demonstrated through credit by examination.

Admission to the M.B.A. Program

Although applications for admission to the university as a postbaccalaureate student are accepted at any time, the following schedule of dates has been established for actions by the School of Business and Public Administration in determining eligibility for classified graduate standing.

<i>Entry Quarter</i>	<i>Application and Documents Received by</i>	<i>Notification</i>
Winter, 1992	Oct. 1, 1991	Oct. 31, 1991
Spring, 1992	Jan. 1, 1991	Jan. 31, 1992
Fall, 1992	July 1, 1992	July 31, 1992
Winter, 1993	Oct. 1, 1992	Oct. 30, 1992

Note: The GMAT should normally be taken 8-10 weeks prior to the application deadline to

insure that the scores will be reported before the application deadline.

Applicants who apply after the deadline for a particular term and have all documents which show they meet all requirements for classified graduate standing may be admitted to conditionally classified standing. They will automatically be converted to classified graduate standing during the next regular academic term. Students in this category should contact the director of graduate studies of the School of Business and Public Administration for further information.

Students who meet all entrance requirements except course prerequisites may be admitted to the program in a conditionally classified status until those prerequisite deficiencies are removed, at which time they will be advanced to classified graduate standing in the program. Only fully classified students, however, may enroll in 600-level courses unless they have written consent from the school graduate director.

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A bachelor's degree from an accredited college or university;
2. The following combination of grade-point average (GPA) and test score on the GMAT (Graduate Management Admission Test): GMAT score plus 200 times GPA on the last 90 sequential quarter units (60 semester units) of course work (including postbaccalaureate course work) equals or exceeds 1020;
3. Submission of GMAT score by the deadline for that term; if test result is not submitted on time, admission status will be unclassified postbaccalaureate;
4. Competence in the following prerequisite courses or their equivalents:
 - A. Acct 503. Financial and Managerial Accounting
 - B. Econ 305. Intensive Introductory Economics
 - C. Fin 503. Financial Management Concepts
 - D. Info 220. Fundamentals of Business Data Processing
 - E. Mgmt 302. Management and Organizational Behavior
 - or
 - Psyc 302. Management and Organizational Behavior
 - F. Mgmt 330. Legal Environment of Business
 - G. Mgmt 495. Expository Writing for Administration
 - H. Mktg 305. Marketing Principles
 - I. MSci 504. Quantitative Tools for Management

or

Math 504. Quantitative Tools for Management

Note: Economics 305, Finance 503, Management Science 504 and Mathematics 504 are intensive introductory courses taught at an accelerated pace and cover material otherwise available in two lower-division courses. Students who may have difficulty with accelerated courses should consider enrolling in the individual equivalent courses. Consult the graduate director for more information.

Competence in the above prerequisite courses may be demonstrated by:

- A. Formal completion of the course or its equivalent.
 - B. Credit by examination.
 - C. Waiver based on specialized work experience; must have documentation of work directly related to course to be waived; and must be approved by the school's director of graduate studies. (Students requesting waiver of any prerequisite courses must petition the school's director of graduate studies. Inquiries about a challenge examination or substitution for Management 495 should be directed to the dean of graduate studies.)
5. Academic motivation and personal qualifications demonstrated through submission of a 200–250 word statement of reasons for wishing to pursue the M.B.A. at California State University, San Bernardino, and personal qualifications that will contribute to successful completion of the program.

Advancement to Candidacy

To be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed, at least 16 quarter units of applicable graduate-level course work at the University, with a minimum grade-point average of 3.0;
3. Completed an approved graduate program plan in consultation with an M.B.A. advisor after achieving conditionally classified or classified status;
4. Secured approval of the graduate director of the School of Business and Public Administration and the dean of graduate studies.

Requirements for Graduation

1. A minimum of 48 quarter units of acceptable graduate-level work, consistent with the program plan (with a grade-point average of 3.0), with at least 36 units completed at the university;
2. At least 28 quarter units of 600-level course work;
3. At least 24 quarter units of credit taken after advancement to candidacy for the degree;
4. Successful completion of the required core courses and an elective concentration as outlined in the curriculum section;

5. A grade-point average of 3.0 (B) in all course work taken after admission to conditionally classified or classified status, and grades of "C" (2.0) or better in all courses in the program;
6. Successful completion of a comprehensive examination over the student's concentration any fall, winter or spring term after advancement to candidacy. Students will not be allowed to take the examination if GPA is below 3.0.
7. Any additional general requirements not cited above and listed on Page 316.

Concentrations are available in finance, management and human resources, information management, marketing management, professional accounting, and taxation. Prior to advancement to candidacy, a student must select one of these concentrations to be tested on through the comprehensive examination process. A "no credit" (NC) designation will be entered on the student's transcript if he/she fails the examination. Students who do not receive a passing grade on the examination on the first attempt must petition the school's director of graduate studies for permission to retake the examination. The examination will be offered fall, winter and spring quarters. Only students who are currently classified, have been advanced to candidacy and are not on probation may take the examination.

Degree Requirements (48 units)

1. Acct 606. Accounting for Managerial Decision-Making (4)
or
Acct 610. Advanced Financial Accounting (4)
for Professional Accounting and Taxation Concentrations Only
2. Fin 602. Financial Planning and Control (4)
3. Info 609. Information Management Systems (4)
4. Mgmt 601. Organization Theory and Behavior (4)
5. Mgmt 685. Corporate Policy Analysis (4)
6. Mktg 605. Marketing Management (4)
7. MSci 607. Operations Management (4)

Note: In addition to the regular MBA prerequisites, students choosing the *Professional Accounting* or the *Taxation* concentrations must have taken, or demonstrate proficiency in the following courses or equivalents (normally taken in any undergraduate Accounting program):

- Acct 315. Accounting Information Systems (4)
- Acct 340. Managerial Accounting (4)
or
Acct 344. Cost Accounting (4)
- Acct 372. Intermediate Accounting (4)

- Acct 373. Problem Areas in Intermediate Accounting (4)
 Acct 374. Reporting Issues in Intermediate Accounting (4)
 Acct 426. Introduction to Taxation I (4)
 Acct 438. Auditing (4)
8. *Twenty units from one of the following concentrations, chosen in consultation with an advisor:*

Finance Concentration

- A. Fin 645. Advanced Financial Systems Management (4)
 B. Fin 651. Financial Institutions and Markets (4)
 C. Fin 653. Investment Analysis and Portfolio Management (4)
 D. Fin 654. International Finance (4)
 E. *Four units chosen from:*
 Fin 575. Internship in Finance (4)
 Info 646. Information Management Planning (4)
 Mgmt 603. Research Methods in Administration (4)

Management and Human Resources Concentration

- A. Mgmt 640. Methods of Organizational Change (4)
 B. Mgmt 641. Personnel Administration (4)
 C. Mgmt 642. Communication and Interpersonal Processes (4)
 D. *Eight units chosen from:*
 Mgmt 603. Research Methods in Administration (4)
 Mgmt 643. Organizational Design (4)
 Mgmt 644. Industrial Relations (4)
 Mgmt 650. International Management (4)
 Mgmt 690. Advanced Topics in Management (4)

Information Management Concentration

- A. Info 645. Information Resource Centers (4)
 B. Info 646. Information Management Planning (4)
 C. Info 647. Information Based Management (4)
 D. Info 648. Information Networking Systems (4)
 E. *Four units chosen from:*
 Fin 645. Advanced Financial Systems Management (4)
 Info 650. Information Forecasting Systems (4)

Marketing Management Concentration

- A. Mktg 610. Consumer and Organizational Buying Behavior (4)
 B. Mktg 620. Advertising Management (4)

- C. Mktg 640. Advanced Marketing Research (4)
 D. Mktg 696. Marketing Strategy (4)
 E. *Four units chosen from 500- or 600-level courses chosen in consultation with an advisor.*

Professional Accounting Concentration

- A. Acct 527. Introduction to Taxation II (4)
 B. Acct 545. Cost Determination and Analysis (4)

Note: If Accounting 527 and 545 were taken in the undergraduate program, the student, in consultation with an advisor, will select appropriate 500- or 600-level courses as substitutes.

- C. Acct 615. Controllership (4)
 D. Acct 620. Advanced Auditing (4)
 E. Acct 625. Advanced Accounting Information Systems (4)

Taxation Concentration

- A. Acct 527. Introduction to Taxation II (4)
Note: If Accounting 527 was taken in the undergraduate program, the student, in consultation with an advisor, will select appropriate 500- or 600-level courses as substitutes.
 B. Acct 628. Seminar in Tax Research (4)
 C. Acct 630. Taxation of Corporations and Shareholders (4)
 D. Acct 635. Taxation of Partnerships (4)
 E. Acct 640. Seminar in Family Tax Planning (4)

9. Successful completion of the comprehensive examination covering the student's concentration.

Students who wish to substitute up to two 300- or 400-level courses must petition the school's director of graduate studies for approval in advance; for each course approved, they will be required to enroll simultaneously in a two-unit independent study course directly related to the course selected. These independent study units cannot be applied to any graduate degree unit requirements.

The student should meet with an M.B.A. advisor upon achieving classified status to declare an area of concentration and file an approved program plan.

Students may not take more than a total of 8 quarter units in any combination of School of Administration 575, 590, 595, and 690 courses.

Only classified students (or those who have the consent of the school's director of graduate studies) may enroll in 600-level courses.

The program may not include more than 12 quarter units in extension and transfer credit from other colleges. California State University, San Bernardino will not consider for transfer credit course work from any institution which will not accept that work in its own advanced degree program.

Undergraduate course descriptions for Accounting, Finance, Information Management, Management, Management Science, Marketing, and Public Administration are listed alphabetically throughout the curriculum section of the Bulletin.

COURSE OFFERINGS IN ACCOUNTING (Acct)

Upper Division

503. Financial and Managerial Accounting

Intensive introduction to applied topics and techniques in financial and managerial accounting. Development and use of accounting information for external reporting purposes and management analysis, decision-making, planning and control. No credit will be awarded to students who have had Accounting 211 and 212; 306; or 311 and 312. May not be counted toward fulfilling requirements for any degree program offered by the School of Business and Public Administration. (4 units)

527. Introduction to Taxation II

The basic concepts of the federal income taxation of corporations, partnerships, estates and trusts and the federal estate and gift tax. Emphasis is on the income taxation of corporations. The course also includes an introduction to tax research. May not be taken for credit by students who have received credit for Accounting 427. *Prerequisite: Accounting 426.* (4 units)

545. Cost Determination and Analysis

An advanced study of cost accounting with managerial applications. Coverage will include advanced topics in process and standard costing, mix and yield variances, and other topics relating to the planning and control functions. May not be taken for credit by students who have received credit for Accounting 345. *Prerequisite: Accounting 344.* (4 units)

568. Accounting for Government and Not-for-Profit Organizations

Covers principles and practices of government fund accounting. Topics include governmental accounting concepts, types and structure of funds and accounts, application of generally accepted accounting principles to government and not-for-profit entities, presentation and uses of financial statements. *Prerequisite: Accounting 211 or 311.* (Also offered as Public Administration 568. Students may not receive credit for both.) (4 units)

575. Internship in Accounting

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

590. Seminar in Accounting

An intensive study of some phase of accounting to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units.)

Graduate/Postbaccalaureate

May not be taken by undergraduate students.

Students must be fully classified or have written consent of the school graduate director to enroll in graduate level courses.

606. Accounting for Managerial Decision-Making

Study and application of the concepts and techniques used by management for planning and controlling business activities. *Prerequisite: Finance 503.* (4 units)

610. Advanced Financial Accounting

A study of current issues relating to financial accounting and reporting. Recent statements of the Financial Accounting Standards Board, the Governmental Accounting Standards Board, the American Institute of Certified Public Accountants and the Securities and Exchange Commission will be examined. Students may not receive credit for both Accounting 610 and Accounting 606. *Prerequisite: Accounting 373.* (4 units)

615. Controllership

An advanced study of accounting techniques, concepts and procedures as they relate to the functions and responsibilities of the Controller. Consideration of management reporting systems, planning and controlling functions, corporate allocations, transfer pricing, the general ledger data base system, departmental expense control and investment and disinvestment planning. *Prerequisite: Accounting 344.* (4 units)

620. Advanced Auditing

An advanced study of the theory and practice of auditing. Topics will include recent statements on auditing standards, ethical and legal responsibilities, internal control structure considerations, statistical sampling applications, computer-assisted auditing techniques and regulatory agency requirements. *Prerequisites: Accounting 438 and 625.* (4 units)

625. Advanced Accounting Information Systems

An in-depth study of the design and operation of accounting information systems in both mainframe and microcomputer environments. Advanced consideration of internal control and auditing of computer-based systems. Environmental, hardware and software implications for security and quality control are examined. *Prerequisite: Accounting 315.* (4 units)

628. Seminar in Tax Research

An in-depth study of the steps in the tax research process, including the determination of facts and issues, the location and interpretation of authoritative tax materials, and the communication of research results. *Prerequisite: Accounting 527 or consent of instructor.* (4 units)

630. Taxation of Corporations and Shareholders

Tax consequences of formation, operation, reorganization and liquidation of corporations from the standpoint of the corporation and the shareholders. Special attention is given to Subchapter S corporations. *Prerequisites: Accounting 527 and 628 or consent of instructor.* (4 units)

635. Taxation of Partnerships

Tax aspects of formation, operation and liquidation of partnerships. Topics include the sale or exchange of partnership interests, as well as the consequences of the death or retirement of a partner. *Prerequisites: Accounting 527 and 628 or consent of instructor.* (4 units)

640. Seminar in Family Tax Planning

The study of the federal estate and gift tax and the federal income tax on estates and trusts. Topical coverage is related to tax planning for families. *Prerequisites: Accounting 527 and 628 or consent of instructor.* (4 units)

690. Advanced Topics in Accounting

Intensive study of an advanced topic in accounting. May be repeated for credit as topics change. (4 units)

COURSE OFFERINGS IN ADMINISTRATION (Admn)

Upper Division

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units.)

Graduate/Postbaccalaureate

May not be taken by undergraduate students
Students must be fully classified or have written consent of the school graduate director to enroll in graduate level courses.

698. Extended Enrollment

Independent study leading to completion of requirements (other than course work) for the master's degree. Students enrolled in this course have full use of university facilities. *Prerequisites: advancement to candidacy and consent of department.* (0 units)

COURSE OFFERINGS IN FINANCE (Fin)

Upper Division

503. Financial Management Concepts

An introductory course in financial management with an emphasis on concepts, tools and strategies underlying corporate financial decision-making. Topics include techniques used by firms in procuring and allocating capital for short-term and long-term operations. No credit will be awarded to students who have had Finance 313 and 314. May not be counted toward fulfilling requirements for any degree program offered by the School of Business and Public Administration. *Prerequisite: Accounting 503.* (4 units)

575. Internship in Finance

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

580. Principles of Real Estate

Introduction to basic issues in real estate. Special emphasis will be placed on regional and urban economics, the valuation of real estate, real estate finance, brokerage and management of real estate, and investment aspects of real estate. *Prerequisite: Finance 313.* (4 units)

590. Seminar in Finance

An intensive study of some phase of finance to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students
Students must be fully classified or have written consent of the school graduate director to enroll in graduate level courses.

602. Financial Planning and Control

Current developments and controversies in accounting and financial controls for government and industry. Analysis of financial management in the context of recent technological, sociological and environmental changes. *Prerequisite: Finance 313 and 314 or 503.* (4 units)

645. Advanced Financial Systems Management

Design and implementation of information systems for the development of financial and managerial reports for the corporate manager. Emphasis on simulation models for planning and control. *Prerequisite: Finance 313 and 314 or 503.* (4 units)

651. Financial Institutions and Markets

Analysis of financial institutions and markets. Term structure of interest rates, portfolio theory and flow-fund analysis, deposit-type intermediaries, insurance, pension funds and investment companies. *Prerequisites: Finance 313, 314 or 503.* (4 units)

653. Investment Analysis and Portfolio Management

Comprehensive introduction to the descriptive and formalized quantitative areas of security analysis and portfolio management. *Prerequisite: Finance 602.* (4 units)

654. International Finance

Study of international financial environment and problems in operation of multinational enterprises with major focus on theory and practice of foreign exchange transactions, money and capital markets, investment decisions, current asset management and comparative financial systems. *Prerequisite: Finance 602.* (4 units)

655. Management of Financial Institutions

Concepts and techniques used in management of banks, savings and loans, credit unions and finance companies. Topics include asset, liability and capital management, expense control and productivity analysis. *Prerequisite: Finance 651.* (4 units)

690. Advanced Topics in Finance

Intensive study of an advanced topic in finance. May be repeated for credit as topics change. (4 units)

COURSE OFFERINGS IN INFORMATION MANAGEMENT (Info)

Upper Division**575. Internship in Information Management**

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

590. Seminar in Information Management

An intensive study of some phase of information management to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units.)

Graduate/Postbaccalaureate

May not be taken by undergraduate students
Students must be fully classified or have written consent of the school graduate director to enroll in graduate level courses.

609. Information Management Systems

Advanced applications of computer and information systems in organizations. Topics include information management planning, information technologies and information based management. *Prerequisite: Information Management 309.* (4 units)

645. Information Resource Centers

An introduction to information resource centers. This course covers the topics of management, hardware and software selection, maintenance contracts, security considerations and training necessities. *Prerequisite: Information Management 609 or consent of instructor.* (4 units)

646. Information Management Planning

An introduction to the areas of information and business systems planning for top management. Covers the topics of information architecture, information resource allocation, information strategic planning and related areas. *Prerequisite: Information Management 609 or consent of instructor.* (4 units)

647. Information Based Management

Advanced theory and application of data base management in organizations. Topics include managers' need for information, elements of a data base, types of data bases, difference in data bases and information systems. *Prerequisite: Information Management 609.* (4 units)

648. Information Networking Systems

An advanced study of developing, implementing, and managing data communication systems. Topics covered include use of hardware, software, microwave, fiber optics, multiplexers and digital PBX's and the management of telecommunication resources. *Prerequisite: Information Management 609 or consent of instructor.* (4 units)

650. Information Forecasting Systems

Advanced theory and application of forecasting and decision systems in support of management. Topics include interactive modeling and spread-sheet analysis. *Prerequisite: Information Management 609.* (4 units)

690. Advanced Topics in Information Management

Intensive study of an advanced topic in information management. May be repeated for credit as topics change. (4 units)

COURSE OFFERINGS IN MANAGEMENT (Mgmt)

Upper Division**515. Small Business Consulting**

Supervised consulting assignments designed to provide meaningful business assistance to small businesses. *Prerequisites: consent of instructor and school.* (4 units)

575. Internship in Management

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

590. Seminar in Management

An intensive study of some phase of management to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students
Students must be fully classified or have written consent of the school graduate director to enroll in graduate level courses.

601. Organization Theory and Behavior

A critical analysis of theories for viewing organizations and an examination of the common models for understanding human behavior, including executive behavior, within the constraints of a complex social system. *Prerequisite: Management 302 or Psychology 302.* (4 units)

603. Research Methods in Administration

Principles of research design, development of research instruments, data accumulation and analysis of significant data. Critique of sample research studies from the literature and a research study conducted by the student. (Also offered as Public Administration 603. Students may not receive credit for both.) *Prerequisite: Management Science 210.* (4 units)

640. Methods of Organizational Change

Review of important change methodologies including modeling, operant conditioning, organizational behavior modification, attitude change and organization development (OD). May not be taken for credit by students who have received credit for Management 551. *Prerequisite: Management 302 or Psychology 302.* (4 units)

641. Personnel Administration

Analysis of specific areas and problems in administration of personnel systems and policies. Includes employment planning; personnel recruitment, selection and development; performance appraisal; training; compensation. *Prerequisite: Management 601.* (4 units)

642. Communication and Interpersonal Processes

Various theories of interpersonal processes and communication as they relate to organizational efficiency and effectiveness, as well as a consideration of the organization as a communication system. *Prerequisite: Management 601.* (4 units)

643. Organizational Design

Examination of organizational structure and design. Emphasis on current research and applications. *Prerequisite: Management 601.* (4 units)

644. Industrial Relations

Analysis of industrial relations systems in major industries, collective bargaining institutions, processes, legal environment and problems. (4 units)

650. International Management

Management of organizations in multinational and international environments. Emphasis on economic, political and sociocultural influences. *Prerequisite: Management 302 or Psychology 302 or Management 601 or consent of instructor.* (4 units)

685. Corporate Policy Analysis

Corporate policy and strategy formulation, integrating the various business functions, e.g., marketing, accounting and finance. *Prerequisites: completion of, or concurrent enrollment in, all other core course(s) for the Master of Business Administration.* (4 units)

690. Advanced Topics in Management

Intensive study of an advanced topic in management. May be repeated for credit as topics change. (4 units)

COURSE OFFERINGS IN MANAGEMENT SCIENCE (MSci)

Upper Division**504. Quantitative Tools for Management**

Intensive introduction to applied topics in statistics, algebraic functions and linear programming for graduate students. No credit will be awarded to students who have had all of the following: Management Science 210 or Mathematics 150 or 305 or 350, Management Science 304 and Mathematics 110 or 120. May not be counted toward fulfilling requirements for any degree program offered by the School of Business and Public Administration or the School of Natural Sciences. (Also offered as Mathematics 504. Students may not receive credit for both.) (4 units)

575. Internship in Management Science

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

590. Seminar in Management Science

An intensive study of some phase of Management Science to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students
Students must be fully classified or have written consent of the school graduate director to enroll in graduate level courses.

607. Operations Management

Integration and application of analytical techniques used in manufacturing and service industries. Concepts of decision models are examined for planning, control, forecasting, scheduling, and analysis within an enterprise. *Prerequisites: Management 302 or Psychology 302 and Management Science 504 or Mathematics 504.* (4 units)

611. Operations Analysis

Scientific approach to the resolution of operational problems. Structure and function of models and decision strategy commonly used in national policy analysis including measures of effectiveness, uncertainty, and the misuse of modeling. (Also offered as Mathematics 611. Students may not receive credit for both.) *Prerequisite: one of the following: Management Science 210, Mathematics 305 or 350, Psychology 210, Social Sciences 215 or equivalent.* (4 units)

690. Advanced Topics in Management Science

Intensive study of an advanced topic in management science. May be repeated for credit as topics change. (4 units)

COURSE OFFERINGS IN MARKETING (Mktg)

Upper Division**575. Internship in Marketing**

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

590. Seminar in Marketing

An intensive study of some phase of marketing to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students
Students must be fully classified or have written consent of the school graduate director to enroll in graduate level courses.

605. Marketing Management

Problem-solving and decision-making in marketing and the interacting effects of such factors as selling, advertising, pricing, consumer behavior and channels of distribution. *Prerequisites: Economics 305 and Marketing 305.* (4 units)

610. Consumer and Organizational Buying Behavior

Influences on the purchasing behavior of individual consumers and organizational buyers. Use of theories, concepts and research findings in management and public policy decisions. *Prerequisite: Marketing 605.* (4 units)

620. Advertising Management

The role of advertising in its relationship to other marketing functions, including a detailed study of advertising techniques. Emphasis is on the client-agency relationship, government relations, and the role of marketing management in determining and executing advertising and promotional policy. *Prerequisite: Marketing 605.* (4 units)

640. Advanced Marketing Research

Marketing research functions and activities and their relationships to product/service management, media choice decision, research instruments and data collection, strategy and tactical decisions. *Prerequisites: Management Science 210 or equivalent, Marketing 605 and Mathematics 110.* (4 units)

690. Advanced Topics in Marketing

Intensive study of an advanced topic in marketing. May be repeated for credit as topics change. (4 units)

696. Marketing Strategy

Process by which a company develops a strategic marketing plan. Emphasis is on the role of the consumer/customer, potential effects on the environment, consideration of marketing information and control systems. This is the graduate capstone course in marketing and should be taken last in the student's program. *Prerequisites: Marketing 605 and at least four additional units of 500- or 600-level coursework in marketing.* (4 units)

CRIMINAL JUSTICE

Master of Arts in Criminal Justice

Department of Criminal Justice

Faculty Office Building, Room 144
880-5506

MASTER OF ARTS IN CRIMINAL JUSTICE

Requirements (45 units)

The Master of Arts in Criminal Justice is designed to serve the growing number of individuals in the criminal justice system who desire postbaccalaureate education, as well as those in more traditional public and private employment who may wish to acquire further education in criminal justice.

The degree program offers two options. One is a thesis option designed for students who intend to pursue graduate studies beyond the M.A. level and those students who have special research interests in the criminal justice system. The examination option is for those with administrative and management goals.

The program can serve a variety of student interests. It has been designed with a limited prerequisite requirement to enable students with baccalaureate degrees in related fields such as psychology, administration, anthropology or social sciences to enroll along with students with undergraduate degrees in sociology and criminal justice.

The program is intended for evening students primarily and, therefore, classes will be predominantly scheduled between 4 and 10 p.m.

Admission to the M.A. Program

In addition to the general requirements of the university, specific requirements for admission to classified graduate status are:

1. A baccalaureate degree from an accredited college or university;
2. Completion of an undergraduate major in sociology, criminology, criminal justice, or in an allied field such as administration, psychology or social sciences, or recommendation for admission to the program by a majority of the faculty in the program. Competence in the following prerequisite courses or their equivalents:
 - A. CJus 311. Research Methods in Criminal Justice
 - B. CJus 351. Theories of Crime and Delinquency
 - C. CJus 357. Law Enforcement
or

- CJus 357A. Law Enforcement (Self-paced version)
- or
- Soc 357. Law Enforcement
- D. CJus 358. Punishment and Corrections
or
- Soc 358. Punishment and Corrections
- E. CJus 359. Law and Society
or
- Soc 359. Law and Society

3. A cumulative undergraduate grade-point average of at least 2.5 overall and 3.0 in the major;
4. Completion of the GRE Aptitude Test (verbal, quantitative and analytical aptitude) for evaluation by the criminal justice faculty. If the test result is not submitted in time for the entry term, admission will be conditionally classified graduate standing;
5. Submission to the criminal justice program of three letters of recommendation from individuals who are familiar with the student's academic work and potential to complete the program successfully. Letters must come directly from the writer or be included in a placement file, and will be evaluated by criminal justice faculty members.

Students who meet the general requirements of the University for admission to postbaccalaureate study but do not meet the specific requirements for admission to classified status may be admitted to the program as conditionally classified graduate students. Students enrolling in that status should consult an advisor in the criminal justice program upon admission to work out an appropriate program. With the aid of an advisor, these students may later petition for admission to classified status. The graduate committee will then consider the student's scholastic performance and other circumstances and either grant classified status, specify necessary preparatory studies, or recommend other courses of action.

Advancement to Candidacy

To be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Thesis Option: completion of all required course work except thesis
or
Non-Thesis Option: completion of all required course work except Criminal Justice 695 and Comprehensive Examination;
3. Completed all course work taken before advancement to candidacy with a minimum grade-point average of 3.0;
4. Made arrangements for three faculty members, in consultation with the criminal justice coordinator, to serve as the student's graduate advisory committee, with one member designated to chair the committee;
5. Submitted a formal program of graduate studies to the criminal justice coordinator and the dean

of graduate studies as approved by the student's graduate advisory committee. This should be done no later than the end of the second quarter of graduate work.

Requirements for Graduation

1. A minimum of 45 units of acceptable graduate level work, with at least 32 quarter units completed in residence at this University. The thesis option requires 29 quarter units of 600-level courses; the non-thesis option requires 24 quarter units of 600-level courses;
2. A grade-point average of at least 3.0 in all courses taken after admission to classified status;
3. Completion of course work and an acceptable thesis and final oral examination (Plan I below);
or
Completion of course work and registration in and completion of the comprehensive examination with a grade of credit (Plan II below);
4. Any additional general requirements not cited above and listed on Page 316.

Degree Requirements (45 units)

Plan I (Thesis Program)

1. CJus 550. Criminal Justice Information Systems Management (4)
2. CJus 602. Critical Issues and Criminal Justice Policy (4)
3. CJus 603. Advanced Studies in Criminal Justice Administration (4)
4. CJus 604. Advanced Techniques of Basic and Applied Research in Criminal Justice (4)
5. CJus 605. Proseminar in Criminal Justice (4)
6. CJus 630. Criminal Justice Administration and the Law (4)
7. *Twelve units of electives to be chosen from:*
 - CJus 575. Internship in Criminal Justice (no more than 4 units may be counted toward the degree) (4)
 - CJus 590. Seminar in Criminal Justice (may be repeated as topics change) (4)
 - CJus 595. Independent Study (4)
 - CJus 631. Seminar in Correctional Management (4)
 - CJus 650. Directed Area Studies in Criminal Justice (1-4)
 - PA 557. Public Sector Labor Relations (4)
 - PA 611. Public Administration Theory and Practice (4)
 - PA 662. Human Resources Management in the Public Sector (4)
 - PA 663. Public Budgeting and Finance (4)
 - PA 672. Administrative Regulation (4)
 - PA 680. Public Policy Analysis (4)
 - SW 614. Clinical Child Abuse and Neglect (4)
 - SW 616. Human Sexuality in Social Work Practice (4)

- SW 620. Social Work with Alcohol and Drug Abuse (4)
- SW 622. Crisis Intervention and Emergency Treatment (4)

Other courses may be allowed with consent of department.

8. CJus 699A. Thesis (3)
9. CJus 699B. Thesis (6)

Plan II (Non-Thesis Program)

1. CJus 550. Criminal Justice Information Systems Management (4)
 2. CJus 602. Critical Issues and Criminal Justice Policy (4)
 3. CJus 603. Advanced Studies in Criminal Justice Administration (4)
 4. CJus 604. Advanced Techniques of Basic and Applied Research in Criminal Justice (4)
 5. CJus 605. Proseminar in Criminal Justice (4)
 6. CJus 630. Criminal Justice Administration and the Law (4)
 7. *Seventeen units of electives to be chosen from:*
 - CJus 575. Internship in Criminal Justice (no more than 4 units may be counted toward the degree) (4)
 - CJus 590. Seminar in Criminal Justice (may be repeated as topics change) (4)
 - CJus 595. Independent Study (4)
 - CJus 631. Seminar in Correctional Management (4)
 - CJus 650. Directed Area Studies in Criminal Justice (1-4)
 - PA 557. Public Sector Labor Relations (4)
 - PA 611. Public Administration Theory and Practice (4)
 - PA 662. Human Resources Management in the Public Sector (4)
 - PA 663. Public Budgeting and Finance (4)
 - PA 672. Administrative Regulation (4)
 - PA 680. Public Policy Analysis (4)
 - SW 614. Clinical Child Abuse and Neglect (4)
 - SW 616. Human Sexuality in Social Work Practice (4)
 - SW 620. Social Work with Alcohol and Drug Abuse (4)
 - SW 622. Crisis Intervention and Emergency Treatment (4)
- Other courses may be allowed with consent of department.
8. CJus 695. Criminal Justice Master's Project (4)
 9. Completion of Comprehensive Examination with a grade of credit.

COURSE OFFERINGS IN CRIMINAL JUSTICE (CJus)

Upper Division

550. Criminal Justice Information Systems Management

Analysis of existing criminal justice information systems and computer applications. Develop user applications to improve operations within and between criminal justice agencies. *Prerequisite: Criminal Justice 311 or equivalent.* (4 units)

575. Internship in Criminal Justice

Supervised work and study in private or public organizations. May be repeated once for credit. Open only to criminal justice majors. *Prerequisites: consent of instructor and department.* (4 units)

590. Seminar in Criminal Justice

Special topics in criminal justice. May be repeated for credit with consent of instructor as topics change. *Prerequisite: junior, senior or graduate standing.* (4 units)

595. Independent Study

In-depth research into special topics concerned with the criminal justice system utilizing readings, library and/or field research. A total of 10 units in Criminal Justice 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and department chair's approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 4 units)

597. Senior Honors Project

Original research in an area of criminal justice studies, culminating in a major research report receiving approval of the criminal justice faculty. Enrollment limited to students whose formal application for departmental honors is approved. (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

602. Critical Issues and Criminal Justice Policy

Intensive study of contemporary problems that influence the development and implementation of criminal justice policy as it affects criminal justice administration and the general public. *Prerequisite: consent of instructor.* (4 units)

603. Advanced Studies in Criminal Justice Administration

Comprehensive analysis of organizational and management principles as applied to the unique functions of the criminal justice system. *Prerequisite: consent of instructor.* (4 units)

604. Advanced Techniques of Basic and Applied Research in Criminal Justice

The application of scientific methods used as a means for inquiry, description and analysis of crime and the behavior of the criminal justice system. *Prerequisite: consent of instructor.* (4 units)

605. Proseminar in Criminal Justice

Overview of contemporary research and literature across the criminal justice field. Topics will include current writings and research on crime, police, courts and corrections. (4 units)

630. Criminal Justice Administration and the Law

An examination of state and federal laws that affect administrative processes and managerial practices in criminal justice agencies. (4 units)

631. Seminar in Correctional Management

Exploration of topics in correctional administration including public opinion, civil rights, court intervention, system reform and the management of correctional personnel. (4 units)

650. Directed Area Studies in Criminal Justice

Advanced study in a specific area selected by the student with the approval of the student's committee. *Prerequisite: consent of instructor.* (Credit to be arranged: 1 to 4 units)

695. Criminal Justice Master's Project

Completion of a substantial research paper based on a field research case study or a library research project. *Prerequisites: advancement to candidacy, completion of all other course work and consent of instructor.* (4 units)

698. Extended Enrollment

Independent study leading to completion of requirements (other than course work) for the master's degree. Students enrolled in the course have full use of university facilities. *Prerequisites: advancement to candidacy and consent of department.* (0 units)

699. Thesis

Preparation of the thesis for the Master of Arts in Criminal Justice under the direction of a faculty member from the student's committee. Criminal Justice 699B must be completed before credit will be awarded for 699A.

Prerequisite: advancement to candidacy.

A. (3 units)

B. (6 units)

EDUCATION

Master of Arts in Education

Specialist and Services Credentials Programs

Certificate Programs

Specialist Certificate Program

School of Education

*Faculty Office Building, Room 182
880-5600*

The School of Education offers the following degrees and programs:

Master of Arts in Education with options in:

- Bilingual/Cross-Cultural
- Educational Counseling
- Elementary Education
- Environmental Education
- Reading
- Secondary Education
- Secondary Education with English, History or Physical Education Options
- Special Education
- Vocational Education

Specialist and Services Credentials

- Adapted Physical Education Specialist
- Administrative Services (Preliminary)
- Administrative Services (Professional)
- Bilingual/Cross-Cultural Specialist
- Pupil Personnel Services
- Reading Specialist
- Special Education Specialist: Learning Handicapped
- Special Education Specialist: Physically Handicapped
- Special Education Specialist: Severely Handicapped
- Supervision and Coordination of Designated Subjects Program

Certificate Programs

- Community College Counseling
- Education of the Gifted and Talented
- Educational Computing
- Educational Technology
- Environmental Education
- Middle School Education
- Reading for the Classroom Teacher
- Rehabilitation Counseling
- Remedial Education in the Elementary School
- School Business Management
- Study Strategy Instruction for Secondary Schools

Specialist Certificate Program

- Resource Specialist in Special Education

Also offered through the School of Education are the Master of Arts in Educational Administration (see Page 367) and the Master of Arts in Rehabilitation Counseling (see Page 396). Information on fifth-year, clear credentials and Basic Teaching Credentials (Single Subject, Multiple Subjects and Designated Subjects) can be found on Page 138.

MASTER OF ARTS IN EDUCATION

The Master of Arts programs in elementary and secondary education developed by the University reflect the curricular and educational changes of the past decade and are designed to meet the needs of teachers who desire greater content knowledge as well as new methods of creating a child-centered educational environment. These programs seek to increase the teaching effectiveness of elementary and secondary teachers already in the classroom, to help them upgrade their skills, and to prepare them to serve as leaders in various district curriculum projects and as project directors in federally funded programs. The M.A. graduate should emerge with new skills in carrying out and evaluating educational experimentation. These options are open to individuals who hold a valid teaching credential or to applicants with teaching experience.

The M.A. in education with an emphasis on educational counseling trains individuals to work at all levels—elementary through junior college. The program, which is competency based, gives each graduate student the opportunity to acquire the specific skills needed to become an effective counselor. An important facet of the program is to prepare individuals for cross-cultural counseling and for working with other specialized groups. Neither a credential nor teaching experience is necessary to work toward the M.A. option in educational counseling.

The M.A. in education with an option in reading meets the needs of the candidate who is interested in increasing skills in the effective teaching of reading. The program is competency based and places emphasis on the models and methods that enhance the development of attitudes and skill acquisition for the reader.

The M.A. in education with an option in bilingual/cross-cultural education is designed to give advanced training to personnel involved in bilingual programs in grades K-12. The program should also meet the needs of community college personnel who are involved in the training of classroom aides and other paraprofessionals.

The M.A. in education with an option in special education will provide advanced preparation for teaching the learning handicapped, and will pro-

vide training for those persons interested in administrative positions or leadership positions in special education.

The option in vocational education is designed to provide advanced and specialized education to personnel working in a variety of settings related to vocational education such as secondary, post-secondary and private schools. The program should also meet the requirements for leadership positions in these facilities.

M.A. (BILINGUAL/CROSS-CULTURAL OPTION)

Requirements (46 units)

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid teaching credential or teaching experience;
2. A GPA of at least 2.5 in the last 90 quarter units and a 3.0 in all bilingual/cross-cultural courses;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

Advancement to Candidacy

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed, with a GPA of 3.0, 16 quarter units of course work, at least 12 of which must have been on this campus and approved by an advisor in the School of Education;
(**Note:** Between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)
3. Secured approval of candidacy from the School of Education;
4. Demonstrated proficiency in Spanish;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the dean of graduate studies.

Requirements for Graduation

1. A minimum of 46 quarter units of acceptable graduate-level work, with a minimum of 33 units completed in residence at this University;
2. A minimum of 23 quarter units taken after the student has been advanced to candidacy for the degree;
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements, and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of:
 - A. Educ 600. Master's Degree Project and Educ 610. Research Methodology in Education
 - OR**
 - B. Educ 600. Master's Degree Project and ESpe 644. Problems in Educational Assessment
5. A minimum of 26 units in courses numbered 600 or above included as part of the approved program;
6. Any additional general requirements not cited above and listed on Page 316.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project.

Students must register for Education 600 and 610 or Special Education 644 and these units must be part of the required 46 units.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to the traditional forms. All projects will be planned in consultation with the student's advisor.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

Degree Requirements (46 units)

1. Educ 600. Master's Degree Project (4)
2. Educ 603. Effective Communication in Education (4)
3. Educ 663. Introduction to Educational Research (4)
4. Educ 695. Foundations of Education (4)

5. *Twenty-two units chosen from:*

- Educ 610. Research Methodology in Education (4)
 or
 ESpe 644. Problems in Educational Assessment (4)
 EELB 536. Teaching in a Multicultural Society (4)
 EELB 606. Methods and Materials for Teaching Bilingual Students I (4)
 EELB 607. Methods and Materials for Teaching Bilingual Students II (4)
 EELB 608. Research in Bilingual/Cross Cultural Education (4)
 EELB 679. Field Work (2)

6. *Eight units of electives chosen from:*

- Anth 460. Language and Culture (4)
 Art 328. Mexican Art (4)
 Art 329. Chicano Art (4)
 EClg 655. Multicultural Counseling (4)
 EELB 604A. Advanced Curricular Studies in Elementary Education: Mathematics (2)
 EELB 604B. Advanced Curricular Studies in Elementary Education: Science (2)
 EELB 604C. Advanced Curricular Studies in Elementary Education: Social Studies (2)
 EELB 604D. Advanced Curricular Studies in Elementary Education: Language Arts (2)
 EELB 604E. Advanced Curricular Studies in Elementary Education: Fine Arts (2)
 EELB 604F. Advanced Curricular Studies in Elementary Education: Computers (2)
 Hist 390. History of Mexico (4)
 Hist 391. Chicano History (4)
 Hist 565. Ethnic Minorities in American History (4)
 Hist 566. Ethnic Minorities in the American Southwest: Past and Present (4)
 Hum 460. Cultural Studies (4)
 IS 460. Aspects of Chicano Culture (4)
 Mus 351. Latin American Music (4)
 PSci 352. Minority Politics (4)
 Psyc 345. Cross-Cultural Psychology (4)
 Soc 342. The Chicano Family (4)
 Soc 410. Racial and Cultural Minorities (4)
 Span 415. Comparative Linguistics: Spanish/English (4)
 Span 440. Mexican Literature (4)

M.A. (EDUCATIONAL COUNSELING OPTION)

Requirements (48 units)

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. An admission folder submitted before completion of Counselor Education 531 containing the following:
 - a) Application with statement of intent and autobiographical statement;
 - b) Three letters of recommendation from persons having knowledge of the applicant's counseling potential;
 - c) Results from performance on the Miller Analogies Test (MAT). Test will be administered as a part of Counselor Education 531. Results will be used for advisement only;
 - d) A videotape demonstrating minimal satisfactory competence of student's counseling skills;
 - e) A recommendation from Counselor Education 531 instructor (a full-time faculty member). An evaluation of each student in relation to course competencies will be submitted;
2. Completion of Counselor Education 531 with a grade of "B" (3.0) or better;
3. A 3.0 grade-point average in all education course work completed;
4. Upon completion of Counselor Education 531, the student's file will be reviewed by an admission committee composed of at least three members of the counselor education faculty. Committee members will evaluate admission material and will decide on student's admission status. Students who do not meet admission criteria can be admitted conditionally by the committee. Students admitted in this category may be changed to classified standing with approval of the counselor education admission committee. The committee will review each student's file before the student completes 20 units of course work. A recommendation will be made concerning the student's progress in the program;
5. A continuing review of student's progress will be made through the use of a checklist derived from the list of competencies designated for each course. While all competencies will be reviewed periodically, the primary review will be completed during Counselor Education 657A and 657B (Counseling Practicum). Satisfactory progress (grade of B or better) must be demonstrated upon completion of practicum course work in order to proceed through the sequence (Practicum A, Practicum B, Field Work).

Students who do not meet all of the above criteria will be interviewed by at least two members of the counseling education faculty and may be admitted conditionally. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

Advancement to Candidacy

In order to be formally advanced to candidacy a student must have:

1. Achieved classified graduate standing;
2. Completed Education 603 and 695;
3. Completed, with a GPA of 3.0, 16 quarter units of course work, at least 8 of which must have been on this campus and approved by an advisor in the School of Education;

(**Note:** Between the time of completing 15 units and 23 units of applicable course work, the student is required to apply for advancement to candidacy.)

4. Secured approval of candidacy from the School of Education;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the dean of graduate studies.

Requirements for Graduation

1. A minimum of 48 quarter units of acceptable graduate-level work, with a minimum of 35 units completed in residency at this University;
2. A minimum of 25 quarter units of credit taken after a student has been advanced to candidacy for the degree;
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements, including a minimum grade of "B" (3.0) in the prerequisite course, Counselor Education 531 and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of a written and an oral comprehensive examination;
5. Any additional general requirements not cited above and listed on Page 316.

The written and oral comprehensive examination is designed to test the student's knowledge of the field of counselor education. The examination is offered once each quarter. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of

Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the dean of graduate studies to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

The program may not include more than 13 quarter units in extension and transfer credit from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

Prerequisite course:

- EClg 531. Introduction to Counseling (4)

Degree Requirements (48 units)

1. EClg 619. Appraisal Procedures in Counseling (4)
2. EClg 652. Dynamics of Human Behavior (4)
3. EClg 654. Legal and Ethical Issues in Counseling and Guidance (4)
4. EClg 655. Multicultural Counseling (4)
5. EClg 656. Counseling Theories and Techniques (4)
6. EClg 657A. Counseling Practicum (4)
7. EClg 657B. Counseling Practicum (4)
8. EClg 677. Group Counseling and Guidance (4)
9. EClg 679. Counseling Fieldwork

Four units chosen from:

- A. Multicultural Setting (4)
- B. Elementary School (4)
- C. Middle School (4)
- D. High School (4)
10. Educ 603. Effective Communication in Education (4)
11. Educ 663. Introduction to Educational Research (4)
12. Educ 695. Foundations of Education (4)
13. Successful completion of a written comprehensive examination.

M.A. (ELEMENTARY EDUCATION OPTION)

Requirements (46 units)

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid teaching credential or teaching experience;
2. A cumulative grade-point average of 3.0 (B) in all courses taken in education;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

Advancement to Candidacy

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified graduate standing;
2. Completed with a GPA of 3.0, at least 16 quarter units of course work in graduate standing, at least 10 of which have been taken at this campus and approved by an advisor in the School of Education;

(**Note:** Between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)

3. Satisfactorily completed Education 603 and 695;
4. Secured approval of candidacy from the School of Education;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the dean of graduate studies.

Requirements for Graduation

1. A minimum of 46 quarter units of acceptable course work, with a minimum of 33 completed in residence at this University;
2. A minimum of 23 quarter units taken after the student has been advanced to candidacy for the degree;
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of Education 600 or the passing of a comprehensive examination in elementary education;
5. Any additional general requirements not cited above and listed on Page 316.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project. Students who elect to complete a project are not required to take a comprehensive examination in elementary education.

Students who elect to complete a project must register for Education 600; these units must be part of the required 46 units.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to traditional forms. All projects will be planned in consultation with the student's advisor.

The comprehensive examination is of an integrative nature and is designed to test the student's knowledge of the field of elementary education, rather than subject matter of courses taken. The examination is offered once each quarter.

Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the associate dean of graduate programs to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

Degree Requirements (46 units)

1. Educ 603. Effective Communication in Education (4)
2. Educ 663. Introduction to Educational Research (4)
3. Educ 695. Foundations of Education (4)
4. EEIB 580. Advanced Teaching Strategies (4)
5. *Four units chosen from:*
 - EEIB 604A. Advanced Curricular Studies in Elementary Education: Mathematics (2)
 - EEIB 604B. Advanced Curricular Studies in Elementary Education: Science (2)
 - EEIB 604C. Advanced Curricular Studies in Elementary Education: Social Studies (2)
 - EEIB 604D. Advanced Curricular Studies in Elementary Education: Language Arts (2)
 - EEIB 604E. Advanced Curricular Studies in Elementary Education: Fine Arts (2)

- EEIB 604F. Advanced Curricular Studies in Elementary Education: Computers (2)
6. *Four units chosen from:*
- EEIB 609A. Research in Elementary School Subjects: Mathematics (4)
- EEIB 609B. Research in Elementary School Subjects: Science (4)
- EEIB 609C. Research in Elementary School Subjects: Social Studies (4)
- EEIB 609D. Research in Elementary School Subjects: Language Arts (4)
- EEIB 609E. Research in Elementary School Subjects: Fine Arts (4)
- EEIB 609F. Advanced Curricular Studies in Elementary Education: Computers (2)
7. EEIB 640. Elementary School Curriculum (4)
8. EEIB 697. Elementary Assessment Seminar (2)
9. ESpe 644. Problems in Educational Assessment (4)
10. *Eight units from one of the following areas (A, B, C, D, E and F) chosen in consultation with an advisor in the School of Education:*
- A. Mathematics
EEIB 577. Mathematics Clinic (4)
and
one approved four-unit mathematics course elective
- B. Science
EEnv 635. Environmental Education in the Curriculum (4)
and
one approved four-unit science course elective
- C. Social Studies
Eight units of approved social studies course electives
- D. Language Arts
Eight units of approved English course electives
- E. Fine Arts
Eight units of approved fine arts course electives
- F. Computers
Eight units of approved computer course electives
11. *One of the following options:*
- A. Master's Degree Project Option
1. Educ 600. Master's Degree Project (4)
- OR**
- B. Comprehensive Examination Option
1. Successful completion of a comprehensive examination.
2. Four additional units of 500- or 600-level education course offerings chosen with advisor approval.

M.A. (ENVIRONMENTAL EDUCATION OPTION)

Requirements (46 units)

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are as follows:

1. A valid teaching credential;
 2. Multiple subject science methods course work or appropriate single subject methods course work;
 3. Either A, B, or C as follows:
 - A. Academic preparation as demonstrated by completion of a lower-division course in biological science with laboratory, a lower-division course in physical science with laboratory, and one upper-division course from each of the following three categories:
 1. *Life Sciences:*
Biol 319. Local Flora
Biol 321. Evolution
Biol 370. Symbiosis
Biol 450. Ecology
or other approved course
 2. *Environmental Sciences:*
Geog 350. Conservation and Natural Resources
Geog 360. Climate and Vegetation
Geog 460. Biogeography
Geog 470. Hydrology and Water Resources
HSci 352. Environmental Health I
HSci 355. Health, Consumer and Environmental Law
or other approved course
 3. *Natural Sciences:*
Geol 310. Intermediate Field Studies
Geol 440. Geology of California
NSci 310. The Environment and Human Survival
NSci 314. The Cosmos
NSci 320. Energy
NSci 351. Health and Human Ecology
NSci 499A. Methods and Materials in the Teaching of Natural Sciences
Subjects: Teaching Biology
NSci 499B. Methods and Materials in the Teaching of Natural Sciences
Subjects: Teaching Chemistry
NSci 499I. Methods and Materials in the Teaching of Natural Sciences
Subjects: Teaching Physics
- B. An undergraduate major in science;

- In lieu of meeting all or part of requirements 1, 2, and 3 for admission to classified graduate status, applicant may apply to the environmental education option committee. Applicants' previous course of study and/or extensive work experiences may be judged by the committee as satisfactory preparation for graduate study in environmental education.

Advancement to Candidacy

In order to be formally advanced to candidacy a student must have:

- Achieved classified standing;
- Completed, with a GPA of 3.0, 16 quarter units of course work, at least 12 of which must have been on this campus and approved by an advisor in the School of Education;

(Note: Between the time of completing 15 and 23 units of applicable course work the student is required to apply for advancement to candidacy.)

- Secured approval of candidacy from the School of Education;
- Filed an approved graduate program for completion of the degree. This must be prepared in consultation with advisors, one from the School of Education and one from an appropriate related subject area, and approved by the dean of the School of Education and the dean of graduate studies.

Requirements for Graduation

- A minimum of 46 quarter units of acceptable work, with 33 completed in residence at this University;
- A minimum of 23 units taken after a student has been advanced to candidacy for the degree;
- A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grade of "C" (2.0) or better in all courses in the program;
- Successful completion of the following:
 - Educ 603. Effective Communication in Education
 - Educ 663. Introduction to Educational Research
 - Educ 695. Foundations of Education
- Successful completion of Education 600. Master's Degree Project.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available in the M.A. Handbook available in the Coyote Bookstore.

Students will be encouraged to present projects in a variety of media. The purpose of the project is

for the student to communicate ideas gained in research, experimentation, and creative endeavors; therefore, students should not feel bound to the traditional forms. All projects will be planned in consultation with the student's advisor.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

Degree Requirements (46 units)

- Educ 600. Master's Degree Project (4)
- Educ 603. Effective Communication in Education (4)
- Educ 663. Introduction to Educational Research (4)
- Educ 695. Foundations of Education (4)
- EEnv 635. Environmental Education in the Curriculum (4)
- EEnv 642. Developing the Curriculum Through Outdoor Education (4)
- EEnv 643. Community Resources for Environmental Education (4)
- One of the following:*
 - EEnv 670A. Topics in Environmental Education: Current Issues (2)
 - EEnv 670B. Topics in Environmental Education: Readings in Environmental Education (2)
 - EEnv 670C. Topics in Environmental Education: Outdoor Studies (2)
 - EEnv 670D. Topics in Environmental Education: Laboratory Science Applications (2)
 - EEnv 670E. Topics in Environmental Education: Language Arts Applications (2)
 - EEnv 670F. Topics in Environmental Education: Social Studies Applications (2)
 - EEnv 670G. Topics in Environmental Education: Technology Applications (2)
 - EEnv 670H. Topics in Environmental Education: Arts Applications (2)
 - EEnv 670J. Topics in Environmental Education: Environmental Ethics (2)
 - EEnv 670K. Topics in Environmental Education: Selected Topics (2)
 - EEnv 670L. Topics in Environmental Education: Nature Study Applications (2)
 - EEnv 670M. Topics in Environmental Education: Plant Study Applications (2)
 - EEnv 670N. Topics in Environmental Education: Animal Study Applications (2)
 - EEnv 670P. Topics in Environmental Education: Marine Science Applications (2)
- EEnv 679. Fieldwork: Environmental Education (4)

10. *Fourteen units of electives, ten units of which must be taken outside the School of Education and which must include courses from each of the following three groups:*

Group A (Requirement cannot be satisfied with units/courses previously taken to satisfy admission requirements.)

1. Biol 319. Local Flora (6)
2. Biol 321. Evolution (4)
3. Biol 370. Symbiosis (4)
4. Biol 450. Ecology (6)
5. Geol 310. Intermediate Field Studies (2)
6. Geol 440. Geology of California (4)
7. HSci 352. Environmental Health I (4)
8. HSci 451. Principles of Epidemiology (4)
9. or others upon consent of advisor

Group B (Requirement cannot be satisfied with units/courses previously taken to satisfy admission requirements.)

1. Biol 460. Biogeography (4)
or
Geog 460. Biogeography (4)
2. Geog 350. Conservation and Natural Resources (4)
3. Geog 360. Climate and Vegetation (4)
4. Geog 415. Urban Planning and Land Development (4)
5. Geog 470. Hydrology and Water Resources (4)
6. HSci 355. Health, Consumer and Environmental Law (4)
7. HSci 401. Land Use: Health Aspects (4)
8. or others upon consent of advisor

Group C (Requirement cannot be satisfied with units/courses previously taken to satisfy admission requirements.)

1. EEnv 679. Fieldwork: Environmental Education (4)
2. Phil 350. Ethics (4)
3. *One of the following:*
 - EElB 545. Teaching Science in Elementary School (4)
 - NSci 499A. Methods and Materials in the Teaching of Natural Science Subjects: Teaching Biology (4)
 - NSci 499B. Methods and Materials in the Teaching of Natural Science Subjects: Teaching Chemistry (4)
 - NSci 499I. Methods and Materials in the Teaching of Natural Science Subjects: Teaching Physics (4)
4. *In addition to the units and topic taken as a required course:*
 - EEnv 670A. Topics in Environmental Education: Current Issues (2)
 - EEnv 670B. Topics in Environmental Education: Readings in Environmental Education (2)

- EEnv 670C. Topics in Environmental Education: Outdoor Studies (2)
- EEnv 670D. Topics in Environmental Education: Laboratory Science Applications (2)
- EEnv 670E. Topics in Environmental Education: Language Arts Applications (2)
- EEnv 670F. Topics in Environmental Education: Social Studies Applications (2)
- EEnv 670G. Topics in Environmental Education: Technology Applications (2)
- EEnv 670H. Topics in Environmental Education: Arts Applications (2)
- EEnv 670J. Topics in Environmental Education: Environmental Ethics (2)
- EEnv 670K. Topics in Environmental Education: Selected Topics (2)
- EEnv 670L. Topics in Environmental Education: Nature Study Applications (2)
- EEnv 670M. Topics in Environmental Education: Plant Study Applications (2)
- EEnv 670N. Topics in Environmental Education: Animal Study Applications (2)
- EEnv 670P. Topics in Environmental Education: Marine Science Applications (2)

M.A. (READING OPTION)

Requirements (46 units)

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid teaching credential or teaching experience;
2. A cumulative grade-point average of 3.0 (B) in all courses taken in education;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 16 quarter units may be used to demonstrate fitness to complete the program.

Advancement to Candidacy

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Satisfactorily completed Education 603 and 695;
3. Completed with a GPA of 3.0, 12 quarter units of course work at least 8 of which must have been on this campus and approved by an advisor in the School of Education;

(**Note:** Between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)

4. Secured approval of candidacy from the School of Education;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the dean of graduate studies.

Requirements for Graduation

1. A minimum of 46 quarter units of acceptable work, with 33 completed in residence at this University;
2. A minimum of 23 quarter units of credit taken after a student has been advanced to candidacy for the degree;
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of one of the following:
 - A. Written comprehensive examination;
 - B. Education 600. Master's Degree Project;
 - C. Reading Education 628. Special Projects in Reading.

Students who elect to complete a project will register for Education 600 or Reading Education 628 and these units will be part of the required 46 units. Students who take the comprehensive examination will select, with their advisor, an appropriate elective;

5. Any additional general requirements not cited above and listed on Page 316.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available in the Master of Arts Handbook available in the Coyote Bookstore. Students who elect to complete a project are not required to take a comprehensive examination.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors;

therefore, students should not feel bound to the traditional forms. All projects will be planned in consultation with the student's advisor.

The comprehensive examination is of an integrative nature and is designed to test the student's knowledge of the field of reading rather than the subject matter of courses taken. The examination in Reading is offered once each quarter. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the dean of graduate studies to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

Degree Requirements (46 units)

1. Educ 603. Effective Communication in Education (4)
2. Educ 663. Introduction to Educational Research (4)
3. Educ 695. Foundations of Education (4)
4. ERdg 620. Models of Reading (4)
5. ERdg 622. Reading Approaches and Materials (4)
6. ERdg 625. Reading Clinic (4)
7. ERdg 629. Special Topics in Reading (2)
8. ERdg 631. Developmental Reading (4)
9. ERdg 632. Research Methods and Diagnosis in Reading (4)
10. ERdg 633. Comprehension Through Alternate Communication Systems (4)
11. ERdg 658. Oral and Written Language Development (4)
12. *One of the following options:* (A, B or C)
 - A. Written Comprehensive Examination Option
 1. Successful completion of the written comprehensive examination.
 2. *Four units of electives chosen from:*
 - Art 395. Art in the Classroom (5)
 - Educ 641. Media and Strategies in Teaching (4)
 - EELB 536. Teaching in a Multicultural Society (4)

- Eng 320. Children's Literature (4)
 Eng 420. Grammar and Linguistics (4)
 Eng 422. History of the English Language (4)
 Eng 510. English in the Secondary Classroom (4)
 ERdg 624. Psycholinguistics of Reading (4)
 ESpe 532. Introduction to Teaching Individuals with Exceptional Needs (4)
 TA 481. Creative Drama in the Classroom (4)
- or
 other electives upon consent of advisor.
- B. Master's Degree Project Option
 1. Educ 600. Master's Degree Project (4)
- C. Special Projects in Reading Option
 1. ERdg 628. Special Projects in Reading (4)

M.A. (SECONDARY EDUCATION OPTION)

Requirements (46 units)

Admission to the Program

In addition to the general requirements of the University specific requirements for admission to classified graduate status are:

1. A valid teaching credential or teaching experience;
2. A cumulative grade-point average of 3.0 (B) in all courses taken in education;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the Department of Secondary and Vocational Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

Advancement to Candidacy

In order to be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed with a GPA of 3.0, at least 16 quarter units of applicable course work in graduate standing, at least 12 of which have been taken at this campus and approved by an advisor in the School of Education;

(Note: Between the time of completing 15 units and 23 units of applicable course work

the student is required to apply for advancement to candidacy.)

3. Satisfactorily completed Education 603 and 695;
4. Secured approval of candidacy from the School of Education;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the dean of graduate studies.

Requirements for Graduation

1. A minimum of 46 quarter units of acceptable graduate-level work, with a minimum of 33 completed in residence at this University;
2. A minimum of 23 quarter units taken after the student has been advanced to candidacy for the degree;
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of:
 - A. Education 600. Master's Degree Project
 - B. Education 663. Introduction to Educational Research. The project, part of a course or courses other than independent study, normally in the candidate's teaching area, can be reported in the form of a paper and/or other media. The project must be approved by the instructor and the advisor and submitted in the approved format;
5. A minimum of 26 units in courses numbered 600 or above included as part of the approved graduate program;
6. Any additional general requirements not cited above and listed on Page 316.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to traditional forms. All projects will be planned in consultation with the student's advisor.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

Degree Requirements (46 units)

1. Educ 600. Master's Degree Project (4)
2. Educ 603. Effective Communication in Education (4)
3. Educ 663. Introduction to Educational Research (4)
4. Educ 664. Project Design in Teacher Education (2)
5. Educ 695. Foundations of Education (4)
6. ESec 516. Models of Teaching and Advanced Teaching Methodology (4)
7. ESec 699. Secondary School Curriculum (4)
8. ESpe 644. Problems in Educational Assessment (4)
9. *Eight units of electives chosen from:*
 - EAdm 659. Legal Aspects of Education (4)
 - Educ 546. Computer Based Technology in Education (4)
 - EELB 536. Teaching in a Multicultural Society (4)
 - ESec 443. Curriculum Development for Adolescents (4)
 - ESec 515. Issues and Trends in Secondary Education (2) for a total of (4)
 - ESec 517. Middle School Curriculum and Instruction (4)
 - ESec 602. Special Topics in Secondary Education (2)
10. Eight units of upper-division or graduate-level electives, outside the School of Education, normally in the candidate's teaching area(s), selected with the approval of an advisor.

M.A. (SECONDARY EDUCATION OPTION WITH ENGLISH, HISTORY OR PHYSICAL EDUCATION OPTIONS)

Requirements (46 units)

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid teaching credential or teaching experience;
2. An undergraduate major in English, history, or physical education;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Change to classified standing can be made only with approval of the School of Education and the Department of English, History or Physical Ed-

ucation. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

Advancement to Candidacy

In order to be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed at least 16 quarter units of acceptable course work at this university, with the approval of the advisors and with a minimum grade-point average of 3.0. At least 4 units must be in English, history or physical education and 8 units in education;
(**Note:** Between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)
3. Satisfactorily completed Education 603 and 695;
4. Secured the approval of candidacy from the School of Education and the Department of English, History or Physical Education;
5. Completed both the aptitude test and the advanced test in English or history of the Graduate Record Examination or an equivalent examination with acceptable scores. No test is required for the physical education option;
6. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with advisors in the School of Education and in the Department of English, History or Physical Education and approved by the school, the department and the dean of graduate studies.

Each student will have an advisor from the School of Education and one from the Department of English, History, or Physical Education. Dual signatures are necessary for registration for the initial quarter.

Requirements for Graduation

1. A minimum of 46 quarter units of acceptable graduate-level work, with 33 completed in residence at this University;
2. At least 23 quarter units of credit taken after a student has been advanced to candidacy for the degree;
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
4. Six specified courses in education; six courses either in English, history, or physical education;
5. One project, part of an appropriate English, history, or physical education course other than independent study, which can be reported in the form of a paper or other media. The project must be approved by the instructor and the advisor and submitted in the approved format;

6. Any additional general requirements not cited above and listed on Page 316.

Students will be encouraged to use a variety of media in presenting projects. The purpose of the project requirement is for the student to communicate ideas gathered in research, experimentation and creative endeavors; therefore, students should not feel bound to traditional forms. Each project will be planned with the cooperation of the professor concerned.

The program may not include more than 13 quarter units in extension and transfer credit from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

Degree Requirements (46 units)

1. Educ 603. Effective Communication in Education (4)
2. Educ 663. Introduction to Educational Research (4)
3. Educ 695. Foundations of Education (4)
4. ESec 516. Models of Teaching and Advanced Teaching Methodology (4)
5. ESec 699. Secondary School Curriculum (4)
6. ESpe 644. Problems in Educational Assessment (4)
7. *One of the following options:*
 - A. English Option (22 units):
 1. Eng 420. Grammar and Linguistics (4)
or
Eng 422. History of the English Language (4)
 2. Eng 510. English in the Secondary Classroom (4)
 3. Eng 611. Theory of Rhetoric and Composition (4)
 4. Eng 650. Approaches to Literature (4)
 5. Six units of upper-division courses in English, chosen with the English advisor's approval.
 - OR
 - B. History Option (22 units chosen from the following, or other upper-division or graduate level units in history substituted with the History advisor's approval):
 1. Hist 500. Tudor and Stuart England (4)
 2. Hist 513. Women in U.S. History (4)
 3. Hist 535. Studies in European National History (4)
 4. Hist 540. Constitutional History of the United States (4)
 5. Hist 556. Foreign Relations of the United States (4)
 6. Hist 560. History of the American West (4)
 7. Hist 565. Ethnic Minorities in American History (4)
 8. Hist 566. Ethnic Minorities in the American Southwest: Past and Present (4)

9. Hist 589. Revolutions in History (4)
10. Hist 595B. Independent Study (2)

OR

- C. Physical Education Option (22 units)
 1. PE 600. Graduate Seminar (2)
 2. PE 623. Sport and Social Issues (4)
 3. PE 624. Sport Psychology (4)
 4. PE 630. Physical Education for Special Populations (4)
 5. PE 670. Leadership in Physical Education (4)
 6. PE 681. Exercise and Sport Science (4)

M.A. (SPECIAL EDUCATION OPTION)

Requirements (48 units)

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified status are:

1. A valid teaching credential or evidence of full-time teaching experience;
2. A 3.0 GPA in all course work taken in education;
3. Satisfactory completion of Special Education 530 and 532;
4. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

Advancement to Candidacy

In order to be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed the following course work in education with a 3.0 GPA: Special Education 535, 681 and 684B;
(**Note:** Between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)
3. Secured approval of candidacy from the School of Education;
4. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the dean of graduate studies.

Requirements for Graduation

1. A minimum of 48 quarter units of acceptable work, with 35 units completed at this University;
2. A minimum of 25 quarter units of credit taken after a student has been advanced to candidacy;
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of all required course work;
5. Any additional general requirements not cited above and listed on Page 316.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project. Students who elect to complete a project are not required to take a comprehensive examination.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to the traditional forms.

The comprehensive examination is of an integrative nature and is designed to test the student's knowledge of a specific field, rather than subject matter of courses taken. The examination is offered once each quarter. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the dean of graduate studies to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

Prerequisite courses:

1. ESpe 530. Psychology and Education of Exceptional Individuals (4)

2. ESpe 532. Introduction to Teaching Individuals with Exceptional Needs (4)

Degree Requirements (48 units)

1. Educ 603. Effective Communication in Education (4)
2. Educ 663. Introduction to Educational Research (4)
3. Educ 695. Foundations of Education (4)
4. ESpe 535. Counseling Exceptional Individuals and Their Families (4)
5. ESpe 681. Assessment and Evaluation for Individuals with Handicaps (4)
6. ESpe 684B. Curriculum and Methods in Special Education: Career/Vocational Preparation (4)
7. *Four units chosen from:*
 - ESpe 691A. Issues and Trends in Special Education: Current Issues (4)
 - ESpe 691B. Issues and Trends in Special Education: Collaboration and Consultation (4)
 - ESpe 691C. Issues and Trends in Special Education: Early Childhood (4)
 - ESpe 691D. Issues and Trends in Special Education: Educational Technologies (4)
 - ESpe 691E. Issues and Trends in Special Education: Administration (4)
 - ESpe 691F. Issues and Trends in Special Education: Fine Arts (4)
 - ESpe 691G. Issues and Trends in Special Education: Post Secondary (4)
8. Sixteen units of electives chosen from the following special education course work: (Students wishing to pursue a learning handicapped, severely handicapped, or physically handicapped credential in conjunction with the M.A.- Special Education Option should consult their advisor for proper choice of courses.):
 - ERdg 625. Reading Clinic (4)
 - ESpe 538. Introduction to Teaching the Gifted and Talented (4)
 - ESpe 539. Programs for Teaching the Gifted and Talented (4)
 - ESpe 626. Curriculum Development for Individuals with Physical Handicaps (4)
 - ESpe 630A. Topics in Research in Teaching and Learning: Gifted and Talented (4)
 - ESpe 630B. Topics in Research in Teaching and Learning: Special Education (4)
 - ESpe 644. Problems in Educational Assessment (4)
 - ESpe 646. The Resource Specialist in Special Education (4)
 - ESpe 668A. Practicum: Severely Handicapped: Developmental Disabilities (4)
 - ESpe 668B. Practicum: Severely Handicapped: Language Disorders (4)

- ESpe 668C. Practicum: Severely Handicapped: Cognitive Disorders (4)
- ESpe 668D. Practicum: Severely Handicapped: Severely Emotionally Disturbed (4)
- ESpe 668E. Practicum: Severely Handicapped: Physical Handicaps (4)
- ESpe 679A. Field Work: Special Education, Learning Handicapped (2)
- ESpe 679B. Field Work: Special Education, Gifted and Talented (2)
- ESpe 679C. Field Work: Special Education, Severely Handicapped (2)
- ESpe 679D. Field Work: Special Education, Resource Specialist (2)
- ESpe 679E. Field Work: Special Education, Physical Handicaps (2)
- ESpe 683. Casework in Teaching Individuals with Learning Handicaps (4)
- ESpe 684A. Curriculum and Methods in Special Education: Language Arts (4)
- ESpe 684C. Curriculum and Methods in Special Education: Core Subjects (4)
- ESpe 688. Etiology and Diagnosis of Individuals with Severe Handicaps (4)
9. *One of the following options:*
- A. Master's Degree Project Option
1. Educ 600. Master's Degree Project (4)
- OR**
- B. Written Comprehensive Examination Option
1. Successful completion of the written comprehensive examination.
 2. Four units of approved electives.

M.A. (VOCATIONAL EDUCATION OPTION)

Requirements (45 units)

Admission to the Program

Applicants must possess a baccalaureate degree from an accredited college or university and a valid teaching credential. Prior to being admitted to the Master of Arts program in the School of Education, applicants must be admitted to the University as an unclassified graduate student. Application for admission to the University should be made at least three months prior to the date the applicant would like to begin taking courses.

Advancement to Candidacy

In order to be formally advanced to candidacy, applicants must have:

1. Been accepted to the School of Education as a classified graduate student;
2. Met the upper-division writing requirement;
3. Filed an approved graduate program form for completion of the degree.

Applicants are encouraged to take Vocational Education 637 as soon as possible and to see a Master of Arts advisor before signing up for any courses.

Requirements for Graduation

1. A minimum of 45 quarter units of acceptable work, with 32 completed in residence at this University;
2. A minimum of 22 units of credit taken after a student has been advanced to candidacy for the degree;
3. A GPA of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of a master's degree project and registration in Education 600;
5. Any additional general requirements not cited above and listed on Page 316.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to the traditional forms. All projects will be planned in consultation with the student's advisor.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

Degree Requirements (45 units)

1. Educ 600. Master's Degree Project (4)
2. Educ 601. Advanced Independent Study Topics in Education (1)
3. Educ 603. Effective Communication in Education (4)
4. EVoc 637. Foundations of Vocational Education (4)
5. EVoc 638. Critical Issues for the Professional Vocational Educator (4)
6. EVoc 639. Professional Competencies in Vocational Education (4)
7. Educ 663. Introduction to Educational Research (4)
8. Educ 695. Foundations of Education (4)

9. Sixteen units from one of the following emphasis areas (A, B, C, D, E, F, or G):

A. Counseling

1. EClg 650. Applied Career Counseling (4)
2. Twelve units of electives approved by the candidate's advisor. This course work may also be applied (where appropriate) toward the Certificate in Rehabilitation Counseling.

OR

B. Curriculum Development

1. ESec 699. Secondary School Curriculum (4)
2. Twelve units of electives approved by the candidate's advisor.

OR

C. Educational Computing

1. Educ 546. Computer Based Technology in Education (4)
2. Twelve units of electives approved by the candidate's advisor. This course work may also be applied (where appropriate) toward the Certificate in Educational Computing.

OR

D. Educational Technology

1. Educ 544. Construction of Instructional Materials (4)
2. Twelve units of electives approved by the candidate's advisor. This course work may also be applied (where appropriate) toward the Certificate in Educational Technology.

OR

E. School Administration

1. EAdm 673. Introduction to School Administration (4)
2. Twelve units of electives approved by the candidate's advisor. This course work may also be applied (where appropriate) toward the Administrative Services (Preliminary) credential.

OR

F. Special Education

1. ESpe 530. Psychology and Education of Exceptional Individuals (4)
2. Twelve units of electives approved by the candidate's advisor.

OR

G. Supervision and Coordination

1. EVoc 508. Organization and Structure of Designated Subjects Programs (4)
2. EVoc 509. Personnel Management in Designated Subjects Programs (4)
3. EVoc 510. Field Work in Coordination and Supervision of Designated Subjects Programs (4)

4. Four units of electives approved by the candidate's advisor. This course work may also be applied (where appropriate) toward the Supervision and Coordination of Designated Subjects Program credential.

ADAPTED PHYSICAL EDUCATION SPECIALIST CREDENTIAL

Requirements (16 units)

Admission to the Program

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the adapted physical education specialist credential program requires the following:

1. A valid California teaching credential authorizing the teaching of physical education.

Credential Requirements (16 units)

Upper-division requirements (16 units)

1. ESpe 530. Psychology and Education of Exceptional Individuals (4)
2. PE 330. Physical Education for the Exceptional Individual (4)
3. *Eight units chosen from:*
 - PE 331A. Topics in Adapted Physical Education: Adapted aquatics (2)
 - PE 331B. Topics in Adapted Physical Education: Physically handicapped (2)
 - PE 331C. Topics in Adapted Physical Education: Learning handicapped (2)
 - PE 331D. Topics in Adapted Physical Education: Communicatively handicapped (2)
 - PE 331E. Topics in Adapted Physical Education: Severely handicapped (2)

ADMINISTRATIVE SERVICES (PRELIMINARY) CREDENTIAL

Requirements (46 units)

Admission to the Program

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the administrative services (preliminary) credential program requires the following:

1. A valid California teaching or pupil personnel or health services credential. (The administrative

services credential requires an appropriate credential and three years of school-related experience.);

2. A 3.0 grade-point average in all course work taken in education;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program;

Recommendation for the Credential

To be eligible to be recommended for the credential, a candidate must:

1. Complete the Commission on Teacher Credential competencies dealing with mainstreaming of special education students;
2. Obtain a recommendation from the program committee;
3. Successfully complete the California Basic Educational Skills Test.

Credential Requirements (46 units)

1. EAdm 511. Contemporary School Business Management (4)
2. EAdm 512. School Finance and Budgeting (4)
3. EAdm 654. School Curriculum (4)
4. EAdm 659. Legal Aspects of Education (4)
5. EAdm 661. Supervision of Instruction (4)
6. EAdm 662. School Personnel Administration (4)
7. EAdm 669. The School Principalship (4)
8. EAdm 673. Introduction to School Administration (4)
9. EAdm 676. School Community Relations (4)
10. EAdm 679. Fieldwork in Educational Administration (4)
11. Educ 663. Introduction to Educational Research (4)

ADMINISTRATIVE SERVICES (PROFESSIONAL) CREDENTIAL PROGRAM

Requirements (36 units)

Admission to the Program

In addition to the general requirements of the university for admission as a postbaccalaureate student, admission to the professional administrative services credential program requires the following:

1. The possession of a valid preliminary or clear administrative services credential issued under present or prior state regulations;
2. A cumulative grade-point average of 3.0 in all previous graduate work;
3. The development of an individual study plan, cooperatively developed by the candidate, a faculty advisor from the School of Education, De-

partment of Graduate Programs in Education, and either an administrator from the candidate's school district, or an appropriate person from the county office of education.

Recommendation for the Professional Credential

In order to be recommended for a credential, the student must have:

1. A minimum of two years of full-time school administrative experience in the public schools, or private schools or equivalent;
2. Completed 36 quarter units of course work, at least one-half of which shall have been enrolled in by the candidate while employed in a full-time school administrative position;
3. Prior to award of the credential, the candidate must pass a final examination covering Commission on Teaching Credentialing competencies. For more information, contact the program coordinator.

Credential Requirements (36 units)

1. *Direct Instruction (18 units)*
 - EAdm 690A. Special Topics in School Administration: Principles of Leadership, Organizational Theory and Decision-Making (3)
 - EAdm 690B. Special Topics in School Administration: Instructional Leadership for Program Development and Evaluation (3)
 - EAdm 690C. Special Topics in School Administration: School Law (3)
 - EAdm 690D. Special Topics in School Administration: Human Resources Management (3)
 - EAdm 690E. Special Topics in School Administration: School Business and Facility Management (3)
 - EAdm 690F. Special Topics in School Administration: Social and Political Issues in Education (3)
2. *Advanced Field Studies (12 units)*
 - EAdm 671A. Advanced Field Studies: Principles of Leadership, Organizational Theory and Decision-Making (2)
 - EAdm 671B. Advanced Field Studies: Instructional Leadership for Program Development and Evaluation (2)
 - EAdm 671C. Advanced Field Studies: School Law (2)
 - EAdm 671D. Advanced Field Studies: Human Resources Management (2)
 - EAdm 671E. Advanced Field Studies: School Business and Facility Management (2)

- EAdm 671F. Advanced Field Studies: Social and Political Issues in Education (2)
3. *A minimum of 6 units of electives chosen from:*
- EAdm 511. Contemporary School Business Management (4)
- EAdm 512. School Finance and Budgeting (4)
- EAdm 513. School Accounts and Related Functions (4)
- EClg 531. Introduction to Counseling (4)
- EClg 686. Seminar in Counseling of Children and Parents (2)
- Educ 552. Computers: Curriculum and Instruction (4)
- EEIB 536. Teaching in a Multicultural Society (4)
- ERdg 631. Developmental Reading (4)
- ESpe 644. Problems in Educational Assessment (4)
- ESpe 684A. Curriculum and Methods in Special Education: Language Arts (4)
- EVoc 638. Critical Issues for the Professional Vocational Educator (4)

BILINGUAL / CROSS-CULTURAL SPECIALIST CREDENTIAL

Requirements (44 units)

Admission to the Program

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the bilingual/cross-cultural specialist credential program requires the following:

1. A valid teaching credential or teaching experience;
2. A 3.0 grade-point average in all course work taken in education and in all bilingual/cross-cultural areas;
3. Demonstration of competence in oral and written Spanish at Level 3 on the Foreign Service Institute (FSI) Proficiency Rating;
4. Written evaluations by three professors in courses taken in the program, submitted to the coordinator of the program.

Credential Requirements (44 units)

1. EEIB 536. Teaching in a Multicultural Society (4)
2. EEIB 606. Methods and Materials for Teaching Bilingual Students I (4)
3. EEIB 607. Methods and Materials for Teaching Bilingual Students II (4)
4. EEIB 608. Research in Bilingual/Cross-Cultural Education (4)
5. EEIB 679. Field Work (2) for a total of (4)
6. ESpe 644. Problems in Educational Assessment (4)

7. Hist 391. Chicano History (4)
8. IS 460. Aspects of Chicano Culture (4)
9. Span 415. Comparative Linguistics: Spanish/English (4)
10. *Eight units of electives chosen from:*
 - A. Anth 460. Language and Culture (4)
 - B. Art 328. Mexican Art (4)
 - C. Art 329. Chicano Art (4)
 - D. EEIB 604A. Advanced Curricular Studies in Elementary Education: Mathematics (2)
 - E. EEIB 604B. Advanced Curricular Studies in Elementary Education: Science (2)
 - F. EEIB 604C. Advanced Curricular Studies in Elementary Education: Social Studies (2)
 - G. EEIB 604D. Advanced Curricular Studies in Elementary Education: Language Arts (2)
 - H. EEIB 604E. Advanced Curricular Studies in Elementary Education: Fine Arts (2)
 - I. EEIB 604F. Advanced Curricular Studies in Elementary Education: Computers (2)
 - J. ERdg 624. Psycholinguistics of Reading (4)
 - K. FLa 320. Masterpieces of Literature (4)
 - L. Hist 390. History of Mexico (4)
 - M. Hist 565. Ethnic Minorities in American History (4)
 - N. Hum 460. Cultural Studies (4)
 - O. Mus 351. Latin American Music (4)
 - P. PSci 352. Minority Politics (4)
 - Q. Soc 410. Racial and Cultural Minorities (4)
 - R. Soc 442. Chicano Social Stratification (4)
 - S. Span 302. Theory and Practice in Composition (4)
 - T. Span 440. Mexican Literature (4)

PUPIL PERSONNEL SERVICES CREDENTIAL

Requirements (64 units)

Admission to the Program

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, specific requirements for admission to the pupil personnel services credential program are:

1. An admission folder submitted before completion of Counselor Education 531 containing the following:
 - a) Application with statement of intent and autobiographical statement;

- b) Three letters of recommendation from persons having knowledge of the applicant's counseling potential;
 - c) Results from performance on the Miller Analogies Test (MAT). Test will be administered as a part of Counselor Education 531. Results will be used for advisement purposes only;
 - d) A videotape demonstrating minimal satisfactory competence of student's counseling skills;
 - e) A recommendation from Counselor Education 531 instructor (a full-time faculty member). An evaluation of each student in relation to course competencies will be submitted;
2. Completion of Counselor Education 531 with a grade of "B" or better;
 3. A 3.0 grade-point average in all education course work completed;
 4. Upon completion of Counselor Education 531, the student's file will be reviewed by an admission committee composed of at least three members of the counselor education faculty. Committee members will evaluate admission material and will decide on student's admission status. Students who do not meet admission criteria can be admitted conditionally by the committee. Students admitted in this category may be changed to classified standing with approval of the counselor education admission committee. The committee will review each student's file before the student completes 20 units of course work. A recommendation will be made concerning the student's progress in the program;
 5. A continuing review of student's progress will be made through the use of a checklist derived from the list of competencies designated for each course. While all competencies will be reviewed periodically, the primary review will be completed during Counselor Education 657A and 657B (Counseling Practicum). Satisfactory progress (grade of B or better) must be demonstrated upon completion of practicum course work in order to proceed through the sequence Practicum A, Practicum B and Field Work.

Credential Requirements (64 units)

1. EClg 619. Appraisal Procedures in Counseling (4)
2. EClg 650. Applied Career Counseling (4)
3. EClg 651. Professional School Counselor (4)
4. EClg 652. Dynamics of Human Behavior (4)
5. EClg 654. Legal and Ethical Issues in Counseling and Guidance (4)
6. EClg 655. Multicultural Counseling (4)
7. EClg 656. Counseling Theories and Techniques (4)
8. EClg 657A. Counseling Practicum (4)
9. EClg 657B. Counseling Practicum (4)
10. EClg 658. Consulting with Parents and Staff (4)

11. Educ 663. Introduction to Educational Research (4)
12. EClg 677. Group Counseling and Guidance (4)
13. EClg 679. Counseling Fieldwork
Twelve units chosen from:
 - A. Multicultural Setting (4)
 - B. Elementary School (4)
 - C. Middle School (4)
 - D. High School (4)
14. ESpe 530. Psychology and Education of Exceptional Individuals (4)
15. Successful completion of the California Basic Educational Skills Test.

READING SPECIALIST CREDENTIAL

Requirements (44 units)

Admission to the Program

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the reading specialist credential program requires the following:

1. A valid teaching credential or teaching experience;
2. A 3.0 grade-point average in all course work taken in education;
3. Three letters of recommendation: one from the candidate's school principal, one from a fellow teacher and one from a college professor of a graduate-level course taken within the last three years. These letters will be evaluated by faculty members in the program.

Recommendation for the Credential

In order to be recommended for a credential, the student must have:

1. Completed all of the prescribed course work with a grade-point average of 3.0 or better;
2. Verified that all Commission on Teacher Credential competencies have been met;
3. Verified two years of full-time teaching, including the teaching of reading;
4. Obtained a letter of recommendation from the reading program faculty.

Credential Requirements (44 units)

1. ERdg 620. Models of Reading (4)
2. ERdg 622. Reading Approaches and Materials (4)
3. ERdg 624. Psycholinguistics of Reading (4)
4. ERdg 625. Reading Clinic (4)
5. ERdg 628. Special Projects in Reading (4)
6. ERdg 629. Special Topics in Reading (2) for a total of (4)
7. ERdg 631. Developmental Reading (4)

8. ERdg 632. Research Methods and Diagnosis in Reading (4)
9. ERdg 633. Comprehension through Alternate Communication Systems (4)
10. ERdg 636. Field Work Experience for the Reading Specialist (4)
11. ERdg 658. Oral and Written Language Development (4)

- ESpe 691D. Issues and Trends in Special Education: Educational Technologies (4)
- ESpe 691E. Issues and Trends in Special Education: Administration (4)
- ESpe 691F. Issues and Trends in Special Education: Fine Arts (4)
- ESpe 691G. Issues and Trends in Special Education: Post Secondary (4)

SPECIAL EDUCATION SPECIALIST: LEARNING HANDICAPPED CREDENTIAL

Requirements (48 units)

Admission to the Program

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the special education specialist credential program (learning handicapped) requires the following:

1. A valid teaching credential or evidence of full-time teaching experience;
2. A 3.0 grade-point average in all course work taken in education.

Credential Requirements (48 units)

1. ERdg 625. Reading Clinic (4)
2. ESpe 530. Psychology and Education of Exceptional Individuals (4)
3. ESpe 532. Introduction to Teaching Individuals with Exceptional Needs (4)
4. ESpe 535. Counseling Exceptional Individuals and Their Families (4)
5. ESpe 644. Problems in Educational Assessment (4)
6. ESpe 679A. Special Education Field Work: Learning Handicapped (4)
7. ESpe 681. Assessment and Evaluation for Individuals with Handicaps (4)
8. ESpe 683. Casework in Teaching Individuals with Learning Handicaps (4)
9. ESpe 684A. Curriculum and Methods in Special Education: Language Arts (4)
10. ESpe 684B. Curriculum and Methods in Special Education: Career/Vocational Preparation (4)
11. ESpe 684C. Curriculum and Methods in Special Education: Core Subjects (4)
12. *One of the following:*
 - ESpe 691A. Issues and Trends in Special Education: Current Issues (4)
 - ESpe 691B. Issues and Trends in Special Education: Collaboration and Consultation (4)
 - ESpe 691C. Issues and Trends in Special Education: Early Childhood (4)

SPECIAL EDUCATION SPECIALIST: PHYSICALLY HANDICAPPED CREDENTIAL

Requirements (48 units)

Admission to Program

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the special education credential program (physically handicapped) requires the following:

1. A 3.0 grade-point average in all course work taken in education;
2. A valid California basic teaching credential.

Credential Requirements (48 units)

1. ESpe 530. Psychology and Education of Exceptional Individuals (4)
2. ESpe 532. Introduction to Teaching Individuals with Exceptional Needs (4)
3. ESpe 535. Counseling Exceptional Individuals and Their Families (4)
4. ESpe 626. Curriculum Development for Individuals with Physical Handicaps (4)
5. ESpe 668A. Practicum: Severely Handicapped: Developmental Disabilities (4)
6. ESpe 668B. Practicum: Severely Handicapped: Language Disorders (4)
7. ESpe 668E. Practicum: Severely Handicapped: Physical Handicaps (4)
8. ESpe 679E. Special Education Field Work: Physical Handicaps (4)
9. ESpe 681. Assessment and Evaluation for Individuals with Handicaps (4)
10. ESpe 684A. Curriculum and Methods in Special Education: Language Arts (4)
11. ESpe 684B. Curriculum and Methods in Special Education: Career/Vocational Preparation (4)
12. *Four units chosen from:*
 - ESpe 691A. Issues and Trends in Special Education: Current Issues (4)
 - ESpe 691B. Issues and Trends in Special Education: Collaboration and Consultation (4)

- ESpe 691C. Issues and Trends in Special Education: Early Childhood (4)
- ESpe 691D. Issues and Trends in Special Education: Educational Technologies (4)
- ESpe 691E. Issues and Trends in Special Education: Administration (4)
- ESpe 691F. Issues and Trends in Special Education: Fine Arts (4)
- ESpe 691G. Issues and Trends in Special Education: Post Secondary (4)

SPECIAL EDUCATION SPECIALIST: SEVERELY HANDICAPPED CREDENTIAL

Requirements (48 units)

Admission to the Program

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the special education specialist credential program (severely handicapped) requires the following:

1. A 3.0 grade-point average in all course work taken in education;
2. A valid California basic teaching credential.

Credential Requirements (48 units)

1. ESpe 530. Psychology and Education of Exceptional Individuals (4)
2. ESpe 532. Introduction to Teaching Individuals with Exceptional Needs (4)
3. ESpe 535. Counseling Exceptional Individuals and Their Families (4)
4. ESpe 668A. Practicum: Severely Handicapped: Developmental Disabilities (4)
5. ESpe 668B. Practicum: Severely Handicapped: Language Disorders (4)
6. ESpe 668C. Practicum: Severely Handicapped: Cognitive Disorders (4)
7. ESpe 668D. Practicum: Severely Handicapped: Severely Emotionally Disturbed (4)
8. ESpe 679C. Special Education Field Work: Severely Handicapped (4)
9. ESpe 681. Assessment and Evaluation for Individuals with Handicaps (4)
10. ESpe 684B. Curriculum and Methods in Special Education: Career/Vocational Preparation (4)
11. ESpe 688. Etiology and Diagnosis of Individuals with Severe Handicaps (4)
12. *Four units chosen from:*
 - ESpe 691A. Issues and Trends in Special Education: Current Issues (4)

- ESpe 691B. Issues and Trends in Special Education: Collaboration and Consultation (4)
 - ESpe 691C. Issues and Trends in Special Education: Early Childhood (4)
 - ESpe 691D. Issues and Trends in Special Education: Educational Technologies (4)
 - ESpe 691E. Issues and Trends in Special Education: Administration (4)
 - ESpe 691F. Issues and Trends in Special Education: Fine Arts (4)
 - ESpe 691G. Issues and Trends in Special Education: Post Secondary (4)
-

SUPERVISION AND COORDINATION OF DESIGNATED SUBJECTS PROGRAMS CREDENTIAL

Requirements (12 units)

Admission to the Program

1. Possession of, or eligibility for a "clear" designated subjects teaching credential;
2. Three years of full time teaching experience in the subject title on the teaching credential;

All applicants for this credential should contact a designated subjects credential advisor and enroll in Vocational Education 508 as soon as possible.

Credential Requirements (12 units)

1. EVoc 508. Organization and Structure of Designated Subjects Programs (4)
 2. EVoc 509. Personnel Management in Designated Subjects Programs (4)
 3. EVoc 510. Field Work in Coordination and Supervision of Designated Subjects Programs (4)
 4. Successful completion of the California Basic Educational Skills Test.
-

CERTIFICATE PROGRAMS

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Community College Counseling

Admission to the Program

1. Postbaccalaureate standing;
2. Master's Degree in Education or related field; or
3. Current employment as a community college instructor, administrator or counselor.

Certificate Requirements (24 units)

1. EClg 661. Administration of Community College Student Services (4)
2. EClg 662. Community College Student Development (4)
3. EClg 663. Career Development for Community College Students (4)
4. EClg 664. Community College Counseling Issues (4)
5. EClg 666. Professional Community College Counselor (4)
6. EClg 667. Fieldwork in Community College Counseling (4)

Certificate in Education of the Gifted and Talented

Certificate Requirements (20 units)

1. ESpe 538. Introduction to Teaching the Gifted and Talented (4)
2. ESpe 539. Programs for Teaching the Gifted and Talented (4)
3. ESpe 630A. Topics in Research in Teaching and Learning: Gifted and Talented (4)
4. ESpe 679B. Special Education Field Work: Gifted and Talented (4)
5. *Four units chosen from:*
Educ 546. Computer Based Technology in Education (4)
Educ 547. Educational Technology (4)

Certificate in Educational Computing

Certificate Requirements (20 units)

1. Educ 546. Computer Based Technology in Education (4)
2. Educ 551. Computers and Learning (4)
3. Educ 552. Computers: Curriculum and Instruction (4)
4. Educ 553. Developing Computer Based Instructional Materials (4)
5. Educ 692. Practicum for Computer Resource Personnel (4)

Certificate in Educational Technology

Certificate Requirements (28 units)

1. Educ 544. Construction of Instructional Materials (4)
2. Educ 546. Computer Based Technology in Education (4)
3. Educ 547. Educational Technology (4)

4. Educ 548. Seminar in Instructional Design (4)
5. Educ 551. Computers and Learning (4)
6. *Eight units chosen from:*
A. Art 386. Audio and Video Media (4)
or
Comm 386. Audio and Video Media (4)
B. Comm 242. Writing for Print Media (4)
C. CSci 125. Programming in BASIC (2)
D. Educ 552. Computers: Curriculum and Instruction (4)
E. Educ 553. Developing Computer Based Instructional Materials (4)
F. Educ 641. Media and Strategies in Teaching (4)
G. Mus 519. Audio Production (2)

Certificate in Environmental Education

Admission to the Program

1. Completion of at least 15 quarter units of undergraduate natural science course work or the equivalent.

Certificate Requirements (16 units)

1. EEnv 635. Environmental Education in the Curriculum (4)
2. *Twelve units to be chosen from:*
A. EElB 545. Teaching Science in Elementary School (4)
or
NSci 499. Methods and Materials in the Teaching of Natural Sciences Subjects (4)
B. EEnv 642. Developing the Curriculum Through Outdoor Education (4)
C. EEnv 643. Community Resources for Environmental Education (4)
D. EEnv 670A. Topics in Environmental Education: Current Issues (2) for a total of (4)
E. EEnv 670B. Topics in Environmental Education: Readings In Environmental Education (2) for a total of (4)
F. EEnv 670C. Topics in Environmental Education: Outdoor Studies (2) for a total of (4)
G. EEnv 670D. Topics in Environmental Education: Laboratory Science Applications (2) for a total of (4)
H. EEnv 670E. Topics in Environmental Education: Language Arts Applications (2) for a total of (4)
I. EEnv 670F. Topics in Environmental Education: Social Studies Applications (2) for a total of (4)
J. EEnv 670G. Topics in Environmental Education: Technology Applications (2) for a total of (4)

- K. EEnv 670H. Topics in Environmental Education: Arts Applications (2) for a total of (4)
- L. EEnv 670J. Topics in Environmental Education: Environmental Ethics (2) for a total of (4)
- M. EEnv 670K. Topics in Environmental Education: Selected Topics (2) for a total of (4)
- N. EEnv 670L. Topics in Environmental Education: Nature Study Applications (2) for a total of (4)
- O. EEnv 670M. Topics in Environmental Education: Plant Study Applications (2) for a total of (4)
- P. EEnv 670N. Topics in Environmental Education: Animal Study Applications (2) for a total of (4)
- Q. EEnv 670P. Topics in Environmental Education: Marine Science Applications (2) for a total of (4)

Certificate in Middle Grade Education

Admission to the Program

1. Postbaccalaureate standing

Certificate Requirements (16 units)

1. ESec 443. Curriculum Development for Adolescents (4)
2. ESec 517. Middle School Curriculum and Instruction (4)
3. ESec 521. Instructional Strategies and Approaches to Middle Grade (4)
4. ESec 522. Practicum in Middle Grade Education (4)

Certificate in Reading for the Classroom Teacher

Admission to the Program

1. Postbaccalaureate standing;
2. Concurrent enrollment in or completion of a multiple subject or single subject teaching credential or the equivalent.

Certificate Requirements (20 units)

1. ERdg 611. Reading Comprehension: Topics in Enhancing Communication Skills (taken twice as topics change) (2) for a total of (4)
2. ERdg 620. Models of Reading (4)
3. ERdg 629. Special Topics in Reading (taken twice as topics change) (2) for a total of (4)
4. ERdg 631. Developmental Reading (4)
5. ERdg 658. Oral and Written Language Development (4)

Certificate in Rehabilitation Counseling

Certificate Requirements (28 units)

1. EClg 531. Introduction to Counseling (4)
2. EReh 615. Introduction to Rehabilitation Counseling (4)
3. EReh 616A. Multiple Aspects of Disability: Medical (4)
4. EReh 616B. Multiple Aspects of Disability: Vocational (4)
5. EReh 617. Vocational Assessment and Development (4)
6. EReh 618. Applied Job Placement (4)
7. EReh 649. Organizational Development of Rehabilitation Services (4)

Note: Rehabilitation Counseling 615 must be completed with a grade of "B" (3.0) or better to continue work in the certificate program.

Certificate in Remedial Education in the Elementary School

The certificate in remedial education in the elementary school is for both the multiple subject and single subject teachers who wish to enhance their ability to accommodate handicapped individuals in the regular classroom. Students would be enrolled in degree-applicable catalog courses and meet the same requirements of certificate programs of this University.

Admission to the Program

1. Postbaccalaureate standing;
2. Concurrent enrollment in or completion of a multiple subject or single subject teaching credential or the equivalent.

Certificate Requirements (20 units)

1. Educ 601. Advanced Independent Study Topics in Education (1-4) for a total of (4)
2. EELB 577. Mathematics Clinic (4)
3. ERdg 629. Special Topics in Reading (2) for a total of (4)
4. ESpe 540. Strategies for Remedial Teaching (4)
5. *Four units chosen from:*
 - Educ 543. Individualized Instruction (4)
 - EELB 536. Teaching in a Multicultural Society (4)
 - ERdg 658. Oral and Written Language Development (4)

Certificate in School Business Management

Certificate Requirements (26 units)

1. EAdm 511. Contemporary School Business Management (4)
2. EAdm 512. School Finance and Budgeting (4)
3. EAdm 513. School Accounts and Related Functions (4)
4. EAdm 525. Classified Personnel Administration (4)
5. *Six units chosen from:*
 - EAdm 514A. School Business Management and Service Functions: Purchasing, Warehousing and Inventory (2)
 - EAdm 514B. School Business Management and Service Functions: Risk Management (2)
 - EAdm 514C. School Business Management and Service Functions: Facilities Planning, Construction (2)
 - EAdm 514D. School Business Management and Service Functions: Computer Services in Business Functions (2)
 - EAdm 514E. School Business Management and Service Functions: Maintenance, Operations and Transportation (2)
 - EAdm 514F. School Business Management and Service Functions: Employee Supervision (2)
6. *Four units of electives chosen from:*
 - EAdm 659. Legal Aspects of Education (4)
 - EClg 531. Introduction to Counseling (4)
 - ESpe 530. Psychology and Education of Exceptional Individuals (4)
 - PA 307. Public Relations in the Public Sector (4)

OR

Four additional units chosen from:

- EAdm 514A. School Business Management and Service Functions: Purchasing, Warehousing and Inventory (2)
- EAdm 514B. School Business Management and Service Functions: Risk Management (2)
- EAdm 514C. School Business Management and Service Functions: Facilities Planning, Construction (2)
- EAdm 514D. School Business Management and Service Functions: Computer Services in Business Functions (2)
- EAdm 514E. School Business Management and Service Functions: Maintenance, Operations and Transportation (2)
- EAdm 514F. School Business Management and Service Functions: Employee Supervision (2)

Certificate in Study Strategy Instruction for the Secondary Schools

The certificate in study strategy instruction for the secondary schools is for junior/senior high school teachers, administrators and counselors who wish to enhance their ability to incorporate study skill instruction into their curricula.

Admission to the Program

1. Postbaccalaureate standing;
2. Concurrent enrollment or completion of a multiple or single subject teaching credential.

Certificate Requirements (20 units)

1. Educ 601. Advanced Independent Study Topics in Education (1-4) for a total of (4)
2. ERdg 629. Special Topics in Reading (2) for a total of (4)
3. ESec 560. Study Skills for Secondary School (4)
4. ESec 602. Special Topics in Secondary Education (2) for a total of (4)
5. *Four units chosen from:*
 - Educ 543. Individualized Instruction (4)
 - EEIB 536. Teaching in a Multicultural Society (4)
 - ERdg 658. Oral and Written Language Development (4)

Certificate in Resource Specialist in Special Education

Admission to the Program

Admission to the University must precede admission to the certificate program.

1. A baccalaureate degree from an accredited college;
2. A valid special education teaching credential;
3. A cumulative grade-point average of 2.6 in the last 90 quarter units and a 3.0 in all course work taken in education;
4. Special Education 530 or its equivalent; and a minimum of 20 credit hours in special education.

Requirements for Completion of the Certificate (20 units)

1. Three years teaching experience to include full-time teaching in both the regular and the special education classroom.

Certificate Requirements (20 units)

1. ESpe 630B. Topics in Research in Teaching and Learning: Special Education (4)
2. ESpe 646. The Resource Specialist in Special Education (4)
3. ESpe 679D. Special Education Field Work: Resource Specialist (4)

4. ESpe 683. Casework in Teaching Individuals with Learning Handicaps (4)

OR

four units chosen from:

- ESpe 668A. Practicum: Severely Handicapped: Developmental Disabilities (4)
 ESpe 668B. Practicum: Severely Handicapped: Language Disorders (4)
 ESpe 668C. Practicum: Severely Handicapped: Cognitive Disorders (4)
 ESpe 668D. Practicum: Severely Handicapped: Severely Emotionally Disturbed (4)
 ESpe 668E. Practicum: Severely Handicapped: Physical Handicaps (4)
5. *Four units chosen from:*
- A. EAdm 661. Supervision of Instruction (4)
 EAdm 662. School Personnel Administration (4)
 EAdm 673. Introduction to School Administration (4)

OR

- B. Four units chosen in consultation with an advisor.

NOTE: Beginning Fall, 1990, course offerings in education were subdivided into various related disciplines. These courses may be found in the quarterly class schedule under the following headings:

Educ— Education (general and core courses)
 EClg— Counselor Education
 EAdm— Educational Administration (listed on Page 368)
 EEIb— Elementary Education
 EEnv— Environmental Education
 ERdg— Reading Education
 EReh— Rehabilitation Counseling (listed on Page 398)
 ESec— Secondary Education
 ESpe— Special Education
 EVoc— Vocational Education

COURSE OFFERINGS IN EDUCATION (Educ)

Upper Division

537. Introduction to Computer Technology in Education

Operations, terminology and components, Implications for a democratic society, impact on quality of life including economic, moral, legal and ethical. Hands-on use of computers for word processing. One hour of lecture and two hours of laboratory. No programming involved. No previous computer experience required. May not be taken for credit by students who have received credit for Computer Science 127. Conforms with

state regulations to partially meet computer education requirements for single and multiple subject credentials. (2 units)

542. Seminar in Education

Intensive study of topics and problems in education. May be repeated for credit as subject matter changes and with consent of instructor. *Prerequisite: graduate standing or consent of instructor.* (Credit to be arranged: 1 to 4 units)

543. Individualized Instruction

An individualized course on techniques and procedures for constructing materials, tracking students, classroom management, learning centers, record keeping and media involvement for individualizing instruction at all levels. (4 units)

544. Construction of Instructional Materials

Various ways to design and produce instructional materials. Emphasis on use of media to meet instructional objectives. Procedures for systematic evaluation of instructional materials. Eight hours of class and activities weekly. (4 units)

546. Computer Based Technology in Education

Introduction to computer applications, computer based technology and teacher utility programs in educational settings to enhance the development of problem solving skills, critical thinking, and creative processes. Conforms with state regulations to partially meet computer education requirements for single and multiple subject credentials. Three hours lecture and two hours laboratory. *Prerequisite: Computer Science 127 or Education 537.* (4 units)

547. Educational Technology

Introduction to instructional systems. Components to include video-disc, satellite down links, computers, brain games and video. Storage and retrieval systems will be included. *Prerequisite: consent of instructor.* (4 units)

548. Seminar in Instructional Design

Theories of instruction; design and production of instructional modules including specification and analysis of objectives, measurement, instructional activities and selection of methods and materials and evaluation techniques. *Prerequisite: consent of instructor.* (4 units)

550. Internship Seminar

Seminar for elementary, secondary and bilingual interns, focusing on knowledge, skills and attitudes required of a first-year teacher. Graded credit/no credit. (Credit to be arranged: 1 to 4 units)

551. Computers and Learning

Design of courseware and use of computers in education as related to learning theory. *Prerequisites: Education 330 or 332, and 546.* (4 units)

552. Computers: Curriculum and Instruction

Methodology course on teaching with computers, evaluation of courseware and methods of integrating computers in the curriculum. Three hours lecture and two hours laboratory. *Prerequisite: Education 546.* (4 units)

553. Developing Computer Based Instructional Materials

Introduction to educational uses of programming languages in the curriculum. Design and development of educational programs using appropriate computer languages. Three hours lecture and two hours laboratory. *Prerequisites: Education 551 and 552.* (4 units)

555. Internship Seminar II

Seminar for elementary, secondary and bilingual interns, focusing on knowledge, skills and attitudes required of a first year teacher during their second quarter. Graded credit/no credit. *Prerequisite: Education 550.* (Credit to be arranged: 1 to 4 units)

556. Internship Seminar III

Seminar for elementary, secondary and bilingual interns, focusing on knowledge, skills and attitudes required of a first year teacher during their third quarter. Graded credit/no credit. *Prerequisite: Education 555.* (Credit to be arranged: 1 to 4 units)

595. Independent Study

Special topics involving library and/or field research. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and school approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Master's Degree Project

Prerequisite: advancement to candidacy. (4 units)

601. Advanced Independent Study Topics in Education

Special topics involving application of educational procedures. *Prerequisites: minimum grade-point average of 3.0, consent of instructor and school approval of a written proposal of a project submitted on a standard application, and filed in advance of the term in which the course is to be taken.* (Credit to be arranged: 1 to 4 units)

603. Effective Communication in Education

Dynamics of interpersonal communication with an emphasis on the characteristics of an individual's participation in small groups within educational structures. Varying philosophical/theoretical approaches to teaching will be considered. (4 units)

610. Research Methodology in Education

Principles of research design, methods of data collection and analysis. (4 units)

641. Media and Strategies in Teaching

An assessment of media used in instruction with emphasis on teaching strategies and principles of learning. (4 units)

663. Introduction to Educational Research

Introduction to the vocabulary, design, sources of research in education; parametric and non-parametric statistics and evaluation of research. (4 units)

664. Project Design in Teacher Education

Development of research proposals with emphasis on master's projects. (2 units)

692. Practicum for Computer Resource Personnel

Management of educational-computing resources. Principles of adult learning and effective inservice education. Application of advanced curriculum development and evaluation theory. Weekly seminars and directed experiences in school computer laboratory setting required. *Prerequisites: Education 551 and 552.* (4 units)

695. Foundations of Education

History and theory of education within the setting of American society. This course must be taken during the first 12 units of course work toward the Master of Arts degree or before advancement to candidacy. (4 units)

698. Extended Enrollment

Independent study leading to completion of requirements (other than course work) for the master's degree. Students enrolled in this course have full use of university facilities. *Prerequisites: Advancement to candidacy and consent of school.* (0 units)

COURSE OFFERINGS IN COUNSELOR EDUCATION (EC1g)

Upper Division**531. Introduction to Counseling**

Experience-based introduction to counseling and its techniques. This course cannot be counted among the 48 units required in the counselor education option in the Master of Arts program. *Prerequisite: consent of instructor.* (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

619. Appraisal Procedures in Counseling

Individual and group measurement techniques, behavior observation skills, test interpretation, rights and responsibilities of test takers and administrators, and an introduction to personality, aptitude, achievement and career interest measurements. Includes 5 hours of related field work. *Prerequisites: Counselor Education 531 with a grade of "B" (3.0) or better and Education 663.* (4 units)

647. Individual Testing and Case Study Techniques I

Intensive practice in administration and interpretation of Wechsler Scales: Wechsler Preschool and Primary Scale of Intelligence, Wechsler Adult Intelligence Scale and Wechsler Intelligence Scale for Children Revised. *Prerequisite: pupil personnel services credential.* (4 units)

648. Individual Testing and Case Study Techniques II

Intensive practice in administration and interpretation of Stanford-Binet and selected personality measures with attention to integration of results in case studies. *Prerequisite: pupil personnel services credential.* (4 units)

650. Applied Career Counseling

Overview of career counseling, career education and application of career counseling and guidance to schools, educationally related agencies and special settings. Includes 20 hours of related field work. (4 units)

651. Professional School Counselor

Theory and practical applications of comprehensive school counseling programs at the elementary, middle, and high school levels. Experience-based approach to program management and guidance curriculum development. Includes 20 hours of related field work. (4 units)

652. Dynamics of Human Behavior

Theories of learning and human growth and development as related to educational issues, including normal and abnormal human growth and development as related to school behavior, and effects of racial, lifestyle, and sex stereotyping in the classroom. *Prerequisite: Counselor Education 531 with a grade of "B" (3.0) minimum.* (4 units)

654. Legal and Ethical Issues in Counseling and Guidance

Legal and ethical constraints and considerations in the school counseling profession. (4 units)

655. Multicultural Counseling

Theory of and practical applications of counseling skills to serve multi-ethnic school populations. Analysis of differing socio-economic, racial, and social backgrounds of students. Includes 20 hours of related field work. (4 units)

656. Counseling Theories and Techniques

Theories and techniques of counseling; application to educational settings; experiential orientation.

Prerequisite: Counselor Education 531 or consent of instructor. (4 units)

657. Counseling Practicum

- A. Supervised practice in the application of counseling skills, theories and techniques. *Prerequisites: Counselor Education 531, 652 and 656.* (4 units)
- B. Supervised practice in counseling in a laboratory setting. Graded credit/no credit. *Prerequisites: Counselor Education 657A and 677 with a grade of "B" or better.* (4 units)

658. Consulting with Parents and Staff

Theory and methods of consultation and theory with parents, teachers, and administrators and theory and methods of the supervision process. Five hours of related field work. (4 units)

659. Secondary School Career Counseling

Advanced applications of career counseling, guidance, and assessment techniques for secondary schools. *Prerequisite: Counselor Education 650.* (4 units)

660. Seminar in Development and Learning

Interdisciplinary approach in understanding cognitive, social and emotional development with emphasis on developmental patterns and implications for early childhood programs. Analysis of selected research and cross cultural studies. *Prerequisite: completion of introductory course in child development or equivalent.* (4 units)

661. Administration of Community College Student Services

Theory and practical applications of program development for student matriculation, financial aid and related services. (4 units)

662. Community College Student Development

Issues in community college student development, including adult life span development, with emphasis on topics of gender, race and age. (4 units)

663. Career Development for Community College Students

Theory and practical skills in career/life development and planning for community college students, including integration of curriculum and career-related instruction. (4 units)

664. Community College Counseling Issues

Analysis of current trends and selected topics in community college counseling: matriculation, retention of underrepresented minorities, articulation with four-year institutions, and related student services. (4 units)

665. Seminar in Adult Leadership

Methods of composing, conducting and communicating with adult groups. Emphasis on techniques for developing interest and involvement; interpreting early education concepts to parents, paraprofessionals, staff, management and community agencies. (2 units)

666. Professional Community College Counselor

Theory and practical applications of community college counseling programs. Experience-based approach to program management and guidance curriculum development. (4 units)

667. Fieldwork in Community College Counseling

Field practice with direct student contact (minimum of 120 hours) in a community college setting, under supervision of qualified personnel. *Prerequisites: Counselor Education 651, 661, 663 and 664.* (4 units)

677. Group Counseling and Guidance

Theories and methods of facilitating counseling and guidance in groups; educational applications; experience-based. 20 hours of related field work. *Prerequisites: Counselor Education 531, 652, 656, or consent of instructor.* (4 units)

679. Counseling Fieldwork

Field practice with direct pupil contact (minimum 120 hours) in an educational setting under supervision of certificated personnel.

- A. Multicultural setting. *Prerequisites: Counselor Education 655 and 656.* (4 units)
- B. Elementary School. *Prerequisites: Counselor Education 657B and 679A or consent of instructor.* (4 units)
- C. Middle School. *Prerequisites: Counselor Education 657B and 679A or consent of instructor.* (4 units)
- D. High School. *Prerequisites: Counselor Education 657B and 679A or consent of instructor.* (4 units)

686. Seminar in Counseling of Children and Parents

Study of theories and techniques in counseling with parents and children. Emphasis on methodology and application of counseling skills. *Prerequisite: pupil personnel services credential.* (2 units)

687. School Psychologists as Change Agents: Theory and Practice

Organizational models, systems analysis, powers and change theories and strategies as applied to educational institutions. *Prerequisite: pupil personnel services credential.* (2 units)

689. Field Work for School Psychologists

Supervised field work for prospective school psychologists in the schools. Regular seminars and conferences required. Graded credit/no credit.

Prerequisites: pupil personnel services credential and Counselor Education 647, 648, 660, 686; Special Education 681 and Psychology 391 or consent of instructor.

- A. (2 units)
- B. (2 units)
- C. (2 units)

693. Special Topics in School Psychology

Selected topics in school psychology, such as professional issues, ethics and current practices, applicable State Education Codes and court decisions, use of community resources; in-service training theory and practicum. May be repeated for credit as topics change. *Prerequisites: pupil personnel services credential, Counselor Education 647, 648, 660; Special Education 681 and Psychology 391 or consent of instructor.* (4 units)

696. Special Topics in Counselor Education

Relevant issues in counselor education. May be repeated for credit as topics change. (2 units)

COURSE OFFERINGS IN ELEMENTARY / BILINGUAL EDUCATION (EEIB)

Upper Division

536. Teaching in a Multicultural Society

Cultural democracy and the quest for equal educational opportunity. Methods and teaching techniques for teaching in a multicultural setting. Developing cultural awareness of teachers to assist them in relating to and motivating culturally different students. (4 units)

541. Problems in Elementary Curriculum

Advanced study of some phase of the elementary school curriculum. May be repeated for credit as subject matter changes and with consent of instructor. *Prerequisite: graduate standing or consent of instructor.* (Credit to be arranged: 1 to 4 units)

545. Teaching Science in Elementary School

Intensive study of teaching science in elementary school. Exploration, analysis, interpretation and implementation of science process teaching. Intended for experienced teachers. *Prerequisite: consent of instructor.* (4 units)

577. Mathematics Clinic

Administration of diagnostic instruments and assessment procedures to elementary school students, followed by prescription and initiation of remedial measures to strengthen the mathematics areas. *Prerequisites: Mathematics 301 and four additional quarter units in mathematics.* (4 units)

580. Advanced Teaching Strategies

Advanced teaching strategies, self and peer coaching for the improvement of teaching using a variety of clinical supervision models. (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

604. Advanced Curricular Studies in Elementary Education

Current and new curricula in elementary school subjects (K-6). May be repeated once in the same subject area.

Prerequisite: teaching credential or consent of instructor.

- A. Mathematics (2 units)
- B. Science (2 units)
- C. Social Studies (2 units)
- D. Language Arts (2 units)
- E. Fine Arts (2 units)
- F. Computers (2 units)

606. Methods and Materials for Teaching Bilingual Students I

Bilingual/cross-cultural teaching strategies and curriculum development; methods of integrating English and Spanish in the instructional program; evaluation of language skills, emphasis on social sciences and language arts. Eight hours of class and activities weekly.

Prerequisite: consent of instructor. (4 units)

607. Methods and Materials for Teaching English as a Second Language

Second language acquisition theory, methods for teaching English as a second language (ESL), development and evaluation of materials for ESL instruction. Eight hours of class and activities weekly. (4 units)

608. Research in Bilingual/Cross-Cultural Education

Survey of current measurements and research in bilingual/cross-cultural education and their applications in the classroom. (4 units)

609. Research in Elementary School Subjects

Research conducted on selected educational topics.

Prerequisite: Education 663.

- A. Mathematics (4 units)
- B. Science (4 units)
- C. Social Studies (4 units)
- D. Language Arts (4 units)
- E. Fine Arts (4 units)
- F. Computers (4 units)

640. Elementary School Curriculum

History, organization and operation of the elementary school; curriculum trends; newer practices in elementary education. *Prerequisite: credential or teaching experience.* (4 units)

679. Field Work

Field experience in selected program topics. Must be repeated for a total of four units. *Prerequisite: consent of program coordinator.* (2 units)

697. Elementary Assessment Seminar

Emphasizes interpretations of roles, processes and relationships within educational structures relative to personal orientation, beliefs and values. Emphasis on change theory in elementary schools. *Prerequisites: Education 603 and 695.* (2 units)

COURSE OFFERINGS IN ENVIRONMENTAL EDUCATION (EEnv)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

635. Environmental Education in the Curriculum

An introductory course on integrating into the curriculum environmental concepts and values concerning the relationship of people with their natural and physical surroundings. Review of curricula, conceptual frameworks, resources and methods. (4 units)

642. Developing the Curriculum Through Outdoor Education

Procedures and instructional materials for teaching out of doors and the integration of environmental education into the curriculum. Includes program development for resident outdoor school. *Prerequisite: Environmental Education 635.* (4 units)

643. Community Resources for Environmental Education

Application of teaching resources and environmental issues. Survey of resource agencies. Organizing visits to educational sites. *Prerequisite: Environmental Education 635.* (4 units)

670. Topics in Environmental Education

Techniques, topics and relevant issues in environmental education. May be repeated for credit as topics change. *Prerequisite: Environmental Education 635.*

- A. Current Issues (2 units)
- B. Readings in Environmental Education (2 units)
- C. Outdoor Studies (2 units)
- D. Laboratory Science Applications (2 units)
- E. Language Arts Applications (2 units)
- F. Social Studies Applications (2 units)
- G. Technology Applications (2 units)
- H. Arts Applications (2 units)
- J. Environmental Ethics (2 units)
- K. Selected Topics (2 units)
- L. Nature Study Applications (2 units)
- M. Plant Study Applications (2 units)
- N. Animal Study Applications (2 units)
- P. Marine Science Applications (2 units)

679. Fieldwork: Environmental Education

Field experience in environmental education. May be repeated for a total of 8 units. *Prerequisites: Environmental Education 635 and consent of program coordinator.* (4 units)

COURSE OFFERINGS IN READING EDUCATION (ERdg)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

611. Reading Comprehension: Topics in Enhancing Communication Skills

Various techniques in communication skills for enhancing reading comprehension. May be repeated for credit as topics change. (2 units)

620. Models of Reading

Examination of theoretical models across the reading continuum. (4 units)

622. Reading Approaches and Materials

Making critical judgments in selection of approaches and materials based on historical views of reading. (4 units)

624. Psycholinguistics of Reading

Important aspects of oral language acquisition and development; cueing systems; similarities and differences in oral and written language and implications for instruction. (4 units)

625. Reading Clinic

Laboratory setting for administering diagnostic tests to clients from the community, prescribing appropriate remedies in skills and content areas. (4 units)

628. Special Projects in Reading

Research in writing of a curricular project that provides an innovative design for a significant change in a school's reading/language arts program; includes objectives, methodology, recommendations and an abstract. (4 units)

629. Special Topics in Reading

Relevant issues, techniques and topics in reading. May be repeated for credit as topics change. (2 units)

631. Developmental Reading

Overview of developmental reading for the experienced teacher; emphasis on procedures utilized at elementary and/or secondary levels. *Prerequisites: Reading Education 611 and 620.* (4 units)

632. Research Methods and Diagnosis in Reading

Review of reading research design, methods of data collection, analysis, formal and informal reading assessment instruments of student performance. (4 units)

633. Comprehension through Alternate Communication Systems

How various meaning systems, including the arts, affect reading comprehension. (4 units)

636. Field Work Experience for the Reading Specialist

Combines classroom supervision and periodic seminar discussions on relevant topics for the reading specialist. Graded credit/no credit. (4 units)

658. Oral and Written Language Development

Methods for integrating the processes of writing and oral language that underlie effective reading curriculum. (4 units)

COURSE OFFERINGS IN SECONDARY EDUCATION (ESec)

Upper Division

515. Issues and Trends in Secondary Education

Examination of issues and trends in secondary education. May be repeated with consent of advisor. *Prerequisite: consent of advisor.* (2 units)

516. Models of Teaching and Advanced Teaching Methodology

Demonstration and discussion on various models of teaching and advanced teaching methods relevant to secondary school classrooms. (4 units)

517. Middle School Curriculum and Instruction

Examination of middle school curriculum design and instructional practices. (4 units)

521. Instructional Strategies and Approaches to Middle Grade

Instructional methods, techniques and evaluation procedures especially appropriate for middle schools. (4 units)

522. Practicum in Middle Grade Education

Practicum for middle grade philosophies, objectives, and functions. *Prerequisites: Secondary Education 443, 517 and 521.* (4 units)

560. Study Skills for Secondary School

Programs, methods and materials for teaching study skills to exceptional junior and senior high school students. Study strategies include: note taking, organization, memory devices, study contracts and preparation for examinations. (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

602. Special Topics in Secondary Education

Exploration, demonstration and application of issues and techniques in selected topics of current concern in secondary education (such as, inquiry-discovery teaching, simulations and games, alternate education programs, consumer education, team teaching, career education, teacher as counselor). May be repeated for credit as topics change. (2 units)

666. Techniques and Applications of Mathematics Education

Applications of theory in mathematics teaching including materials development in the design and implementation of mathematics instruction, audio-visual technology, computer-assisted instruction, and non-traditional curricula. Focus on techniques in pre-algebra, algebra, geometry, analytic geometry, trigonometry and pre-calculus. (4 units)

672. Educational Assessment in Mathematics Teaching

Program and learner assessment in mathematics using curriculum evaluation, testing, and evaluation systems for the purpose of improving instruction through problem diagnosis, intervention and redesign. (4 units)

678. Mathematics Clinic for Secondary Education

Administration of diagnostic instruments and assessment procedures to secondary school students followed by prescription and initiation of remedial instruction to strengthen mathematics skills. (4 units)

699. Secondary School Curriculum

Study of the development of the American secondary school with emphasis on current and emerging patterns of organization and curriculum. *Prerequisite: graduate standing.* (4 units)

COURSE OFFERINGS IN SPECIAL EDUCATION (ESpe)

Upper Division

523. Mainstreaming Handicapped Individuals in the Elementary Classroom

Introduction to the adaptation of curriculum, methods and materials necessary for accommodating exceptional individuals in the regular elementary classroom. (2 units)

530. Psychology and Education of Exceptional Individuals

Characteristics and educational implications of physical, intellectual, social and emotional deviations among exceptional individuals. Ethical and legal aspects of special education. Observations in educational settings. (4 units)

532. Introduction to Teaching Individuals with Exceptional Needs

Learning characteristics of individuals with handicaps related to educational procedures and intervention strategies. Study and observation of education and intervention theory and practices. *Prerequisite: Special Education 530 or consent of instructor.* (4 units)

535. Counseling Exceptional Individuals and Their Families

Procedures in establishing rapport with handicapped individuals, methods of behavior control, counseling techniques and development of programs for parents of exceptional individuals. *Prerequisites: Special Education 530, 532 or consent of instructor.* (4 units)

538. Introduction to Teaching the Gifted and Talented

Definition, characteristics and development of the gifted and talented individual. Identification procedures. Current legislation and educational practices. Eight hours of class and activities weekly. *Prerequisite: consent of instructor.* (4 units)

539. Programs for Teaching the Gifted and Talented

Development of school programs for gifted and talented: identification, objectives, scheduling, curriculum, materials and program assessment. *Prerequisites: Special Education 538 and consent of instructor.* (4 units)

540. Strategies for Remedial Teaching

Methods of diagnosing needs, teaching basic subjects; organizing curriculum, and controlling behavior of low achieving students in the regular elementary classroom. (4 units)

Graduate/Postbaccalaureate*May not be taken by undergraduate students***626. Curriculum Development for Individuals with Physical Handicaps**

Strategies and implications for teaching physically handicapped children and youth in mainstream and special education settings. (4 units)

630. Topics in Research in Teaching and Learning

Survey of current research in teaching and learning.
Prerequisite: consent of instructor.

- A. Gifted and Talented (4 units)
- B. Special Education (4 units)

644. Problems in Educational Assessment

Teacher-made tests, standardized tests and other published instruments of use in assessing growth in the affective, psychomotor and cognitive domains. (4 units)

646. The Resource Specialist in Special Education

Development and evaluation of consultation and coordination procedures for the special education resource specialist. *Prerequisites: Special Education 630B and special education specialist credential or consent of instructor.* (4 units)

668. Practicum: Severely Handicapped

Development and utilization of educational assessment and teaching techniques, selection and adaptation of methods, materials and equipment, and practice in collaboration with parents and professionals in school and community settings. Weekly seminars required.
Prerequisites: Special Education 530, 532, and 535.

- A. Developmental Disabilities (4 units)
- B. Language Disorders (4 units)
- C. Cognitive Disorders (4 units)
- D. Severely Emotionally Disturbed (4 units)
- E. Physical Handicaps (4 units)

679. Special Education Field Work

Supervised field experiences in selected program topics.
Prerequisite: consent of program coordinator.

- A. Learning Handicapped. *Prerequisites: Special Education 530, 532, 535, 681, 683, 684A and 684B.* (4 units)
- B. Gifted and Talented. *Prerequisites: Special Education 538 and 539.* (4 units)
- C. Severely Handicapped. *Prerequisites: Special Education 530, 532, 535, 668, 681, 684C and 688.* (4 units)
- D. Resource Specialist. *Prerequisite: special education specialist credential. Prerequisite or corequisite: Special Education 646.* (4 units)
- E. Physical Handicaps. *Prerequisites: Special Education 530, 532, 535, 626, 668, 681 and 684A.* (4 units)

681. Assessment and Evaluation for Individuals with Handicaps

Techniques for identification and assessment of handicapped individuals. Gathering diagnostic information in academic and social-emotional areas for individual educational program preparation.
Prerequisites: Special Education 530, 532, 535 or consent of instructor. (4 units)

683. Casework in Teaching Individuals with Learning Handicaps

Systematic observation, academic assessment, clinical assessment, clinical teaching and specialized formal evaluation procedures applied to learning handicapped pupils. *Prerequisites: Reading Education 625 (for students pursuing the special education specialist learning handicapped credential), Special Education 530, 532, 535, 681, 684A and 684B.* (4 units)

684. Curriculum and Methods in Special Education

Methods and materials for exceptional learners in the areas of language arts: reading, writing, speaking and listening instruction; in the areas of career, vocational and critical skills development; and in mathematics and other designated subject areas. Curriculum issues for resources, self-contained and mainstream programs. Field experiences included. *Prerequisites: Special Education 530, 532, 535 and 681.*

- A. Language Arts (4 units)
- B. Career/Vocational Preparation (4 units)
- C. Core Subjects (4 units)

688. Etiology and Diagnosis of Individuals with Severe Handicaps

Examination of causes of atypical sensory, motor, perceptual and mental development. Implication of deficit areas for diagnostic/prescriptive planning. Field experiences in home/residential settings. *Prerequisites: Special Education 530, 532 and 535.* (4 units)

691. Issues and Trends in Special Education

Specialized in-depth study of selected topics in Special Education. Field study experience included.

- A. Current Issues (4 units)
- B. Collaboration and Consultation (4 units)
- C. Early Childhood (4 units)
- D. Educational Technologies (4 units)
- E. Administration (4 units)
- F. Fine Arts (4 units)
- G. Post Secondary (4 units)

COURSE OFFERINGS IN VOCATIONAL EDUCATION (EVoc)

Upper Division**501. Principles and Methods for Teaching Designated Subjects**

Application of instructional methodology for designated subjects with emphasis on student performance objectives, lesson planning, teaching methods, educational materials, and evaluation techniques. (4 units)

502. Instructional Support for Teaching Designated Subjects

Examination of instructional support for designated subjects with emphasis on program advisory committees, student placement, facilities planning, budgeting, student organizations, public relations, career advancement and educational philosophy. *Prerequisite: Vocational Education 501 or consent of instructor.* (4 units)

**503. Contemporary Issues in Teaching
Designated Subjects**

Examination of contemporary issues in designated subjects with emphasis on individual education plans, basic skills, school law, multicultural activities, special needs students, safety and performance assessment instruments. *Prerequisite: Vocational Education 501 or consent of instructor.* (4 units)

504. Principles of Adult Education

History, philosophy and social significance of adult education, especially in California; the adult as a student; investigation of the theories and application of the principles of adult education. (4 units)

508. Organization and Structure of Designated Subjects Programs

Investigation and application of principles of facility planning, budgeting, funding sources and related topics as they apply to designated subjects instructional programs. *Prerequisite: a valid designated subjects teaching credential.* (4 units)

509. Personnel Management in Designated Subjects Programs

Principles of personnel selection, evaluation, supervision, school law and related topics as they apply to designated subjects instructional programs. *Prerequisite: a valid designated subjects teaching credential.* (4 units)

510. Field Work in Coordination and Supervision of Designated Subjects Programs

Supervised field work in coordination and supervision of designated subjects programs. Students will contract to perform administrative tasks related to site-based instructional programs. *Prerequisites: a valid designated subjects teaching credential and completion of or concurrent enrollment in Vocational Education 508 and 509 or consent of instructor.* (4 units)

518. Field Work in Designated Subjects

Supervised field work for the Designated Subjects Teaching Credential. Includes lesson planning and instructional delivery in an actual teaching environment with evaluation of teaching performance by the on-site supervisor. *Prerequisites or corequisite: Vocational Education 501 and consent of instructor.* (4 units)

519. Computer Applications for Vocational Education Teachers

Application of personal computers to the preparation of written and graphic materials used by teachers of vocational, occupational and professional subjects. Three hours of lecture and two hours of laboratory. (4 units)

520. Curriculum Development in Vocational Education

Theory and principles of curriculum development as they apply to vocational, occupational and professional courses. Students will develop a complete curriculum for a course that they could teach. *Prerequisite: Vocational Education 501 or its equivalent.* (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

637. Foundations of Vocational Education

Historical context, philosophy and development of vocational education. *Prerequisite: graduate standing.* (4 units)

638. Critical Issues for the Professional Vocational Educator

Current legislation, program planning, professional development and current issues in vocational education. *Prerequisite: Vocational Education 637 or consent of instructor.* (4 units)

639. Professional Competencies in Vocational Education

Roles of professional organizations, research in vocational education, grant writing and strategies for project evaluation. *Prerequisite: Vocational Education 638 or consent of instructor.* (4 units)

EDUCATIONAL ADMINISTRATION

Master of Arts in Educational Administration

Department of Advanced Studies in Education

Faculty Office Building, Room 126
880-5606

MASTER OF ARTS IN EDUCATIONAL ADMINISTRATION

Requirements (46 units)

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A cumulative grade-point average of 3.0 (B) in all courses taken in education;
2. A valid teaching or service credential or evidence of full-time teaching or service experience;

Note: For the administrative services credential three years of full-time teaching is required; substitute teaching does not apply.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program. Normally, a student is expected to be working concurrently for a credential in administrative services.

Advancement to Candidacy

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified graduate standing;
2. Completed, with a GPA of 3.0, 16 quarter hours of course work, at least 12 of which must have been on this campus and approved by an advisor in the School of Education;
(**Note:** Between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)
3. Secured approval of candidacy from the School of Education;

4. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the dean of graduate studies.

Requirements for Graduation

1. A minimum of 46 quarter units of acceptable work with 34 completed in residence at this University;
2. A minimum of 24 quarter units of credit taken after a student has been advanced to candidacy for the degree;
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of a written comprehensive exam or completion of a master's degree project. Students who elect to complete a project will register for Education 600; these units may be part of the required 46 units;
5. Any additional general requirements not cited above and listed on Page 316.

The written comprehensive examination is designed to test the student's knowledge of the field of school administration. The examination is offered once each quarter and during the summer session. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student may take the examination (or any of its parts) three times. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

Degree Requirements (46 units)

Master's Degree Project Option (46 units)

Educ 600. Master's Degree Project (4)

Forty-two units chosen from:

EAdm 511. Contemporary School Business Management (4)

EAdm 512. School Finance and Budgeting (4)

EAdm 654. School Curriculum (4)

EAdm 659. Legal Aspects of Education (4)

EAdm 661. Supervision of Instruction (4)

EAdm 662. School Personnel Administration (4)

EAdm 669. The School Principalship (4)

EAdm 673. Introduction to School Administration (4)

EAdm 676. School Community Relations (4)

EAdm 679. Fieldwork in Educational Administration (4)

Educ 663. Introduction to Educational Research (4)

Comprehensive Examination Option (46 units)

EAdm 511. Contemporary School Business Management (4)

EAdm 512. School Finance and Budgeting (4)

- EAdm 654. School Curriculum (4)
 EAdm 659. Legal Aspects of Education (4)
 EAdm 661. Supervision of Instruction (4)
 EAdm 662. School Personnel Administration (4)
 EAdm 669. The School Principalship (4)
 EAdm 673. Introduction to School Administration (4)
 EAdm 676. School Community Relations (4)
 EAdm 679. Field Work in Educational Administration (4)
 Educ 663. Introduction to Educational Research (4)

COURSE OFFERINGS IN EDUCATIONAL ADMINISTRATION (EAdm)

Upper Division

511. Contemporary School Business Management

Analysis of various approaches to school business administration, current trends, models of organization and management, relationship to county, state and federal agencies, and functions of business management in relation to the size of school districts. *Prerequisite: Management 302 or equivalent.* (4 units)

512. School Finance and Budgeting

Legal considerations in finance and budgeting, evolution of the California school finance program, fiscal relationship to county, state and federal agencies, budget control, school revenues and expenditures and budgetary procedures and processes. (4 units)

513. School Accounts and Related Functions

School fund accounting, attendance accounting, organization and review of student body accounts, state and federal project funding, and certificated and classified payroll laws and regulations pertaining to school accounting procedures. *Prerequisite: Accounting 211 or 311 or equivalent.* (4 units)

514. School Business Management and Service Functions

A variable topic course on management and service functions in the school business office. May be repeated for credit as topics change.

- A. Purchasing, Warehousing and Inventory (2 units)
- B. Risk Management (2 units)
- C. Facilities Planning, Construction (2 units)
- D. Computer Services in Business Functions (2 units)
- E. Maintenance, Operations and Transportation (2 units)
- F. Employee Supervision (2 units)

525. Classified Personnel Administration

Recruitment, selection, induction, training, evaluation and contract negotiations involving classified employees under merit and non-merit systems. (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

654. School Curriculum

History and organization of public schools in the United States, including curriculum trends and practices. (4 units)

659. Legal Aspects of Education

Current laws and court decisions affecting public education with special emphasis on the laws of the State of California. (4 units)

661. Supervision of Instruction

Supervision of classroom school personnel and programs using a variety of models, including clinical supervision. May not be taken for credit by students who have received credit for Education 651. (4 units)

662. School Personnel Administration

Recruitment, selection and evaluation of personnel at all levels of employment. Laws and policy development in relationship to school district and collective bargaining. May not be taken for credit by students who have received credit for Education 651. (4 units)

669. The School Principalship

Role of the school principal with emphasis on leadership, decision-making, group-processes, school climate and site-level budgeting. *Prerequisite: Educational Administration 673.* (4 units)

671. Advanced Field Studies

Advanced preparation in site, district, county or state level administration. Must be taken concurrently with the appropriate, corresponding Educational Administration 690A-F. *Prerequisites: admission to Professional Administrative Services Credential Program and consent of department.*

- A. Principles of Leadership, Organizational Theory and Decision-Making (2 units)
- B. Instructional Leadership for Program Development and Evaluation (2 units)
- C. School Law (2 units)
- D. Human Resources Management (2 units)
- E. School Business and Facility Management (2 units)
- F. Social and Political Issues in Education (2 units)

673. Introduction to School Administration

Introduction to the field of school administration with emphasis on theories of school administration, finance, self-assessment and roles of federal, state and local government. (4 units)

676. School Community Relations

Techniques of working with community agencies and groups, including ethnic groups, professional organizations, school boards and advisory groups with attention to emerging social forces. *Prerequisite: Educational Administration 673.* (4 units)

679. Fieldwork in Educational Administration

Field experiences consisting of two experiences of four units each, one at the elementary level and one at the secondary level, with each coordinated with the district. Must be repeated for a total of eight units. *Prerequisite: consent of program coordinator.* (4 units)

690. Special Topics in School Administration

Seminar in current and innovative administrative processes for elementary and secondary schools and districts. Must be taken concurrently with appropriate, corresponding Educational Administration 671A-F. *Prerequisites: admission to Professional Administrative Services Credential Program and consent of department.*

- A. Principles of Leadership, Organizational Theory and Decision-Making (3 units)

- B. Instructional Leadership for Program Development and Evaluation (3 units)
- C. School Law (3 units)
- D. Human Resources Management (3 units)
- E. School Business and Facility Management (3 units)
- F. Social and Political Issues in Education (3 units)



ENGLISH

Master of Arts in English Composition

with concentrations in:
English Composition
Teaching English as a Second Language

Department of English

Pfau Library Building, Room 236B
880-5824

MASTER OF ARTS IN ENGLISH COMPOSITION

Requirements (45–46 units)

The Master of Arts in English Composition is designed for students interested in pursuing studies in language and writing. The program aims to provide practical experience and techniques in the teaching and/or application of writing in a variety of contexts.

The unique internship component of the English Composition M.A. allows students an opportunity to transfer their knowledge to settings other than public and private schools, thereby enhancing their options for employment in fields other than teaching.

The Master of Arts Concentration in Teaching English as a Second Language provides students the training to meet the needs of the ever growing population of non-native English speakers in the United States. It prepares students specifically for teaching in high school and college ESL programs.

Admission to the Program

In addition to the general requirements of the university, specific requirements for admission to classified graduate status are:

1. For the concentration in English Composition, a major in English, or the following courses or their equivalent taken in conjunction with some other major. For the concentration in TESL, the following courses or their equivalents taken either within or in conjunction with a major:
 - A. For the concentration in English Composition:
 1. Eng 495. Expository Writing
 2. *One of the following:*
 - Eng 311. The English Language
 - Eng 420. Grammar and Linguistics
 - Eng 422. History of the English Language
 3. *Two of the following:*
 - Eng 301. Analysis of Poetry

Eng 302. Analysis of Drama
Eng 303. Analysis of Prose Fiction

4. *One of the following:*

Eng 230. English Literature I
Eng 231. English Literature II
Eng 232. English Literature III

5. *One of the following:*

Eng 330. American Literature I
Eng 331. American Literature II
Eng 332. American Literature III

6. *One of the following:*

Eng 475. Shakespeare I
Eng 476. Shakespeare II

7. *One of the following:*

Eng 401. English Literature of the Middle Ages

Eng 403. English Literature of the Renaissance

Eng 406. Seventeenth Century Literature

Eng 409. English Literature of the Restoration and Eighteenth Century

Eng 412. Romantic Prose and Poetry

Eng 415. Victorian Literature

Eng 442. Modern Poetry

Eng 446. Modern Fiction

8. One English elective;

B. For the concentration in Teaching English as a Second Language:

1. Eng 311. The English Language

2. Hum 312. Theories of Language Acquisition and Learning

3. Eng 420. Grammar and Linguistics

4. Two years of one foreign language or one year each of two foreign languages or passage of language competency exam(s).

5. Eng 495. Expository Writing (or equivalent)

2. A grade-point average of 3.0 in all upper-division courses.

3. Admission to the program will additionally be based upon evaluation by the English Department graduate committee of the following:

A. Three letters of recommendation supporting the student's application. Letters should be from people able to assess the student's competence in both speaking and writing English and foreign language(s). Recommenders also should be able to make relevant comments on the student's likely success in a graduate program in either composition or TESL;

and

B. A 500-word statement of the goals and professional aspirations, to be submitted by the applicant.

Unclassified postbaccalaureate students who have not fulfilled the above requirements may be

admitted to the program as conditionally classified graduate students following review by the Department of English graduate committee. To attain fully classified status, such students must satisfy conditions set by the Department of English graduate committee, usually including completion of at least 15 quarter units of appropriate course work at California State University, San Bernardino with a grade-point average of 3.0 or better.

Advancement to Candidacy

In order to be advanced to candidacy, the student must have:

1. Achieved classified status;
2. Been accepted by a major advisor selected from the faculty of the Department of English;
3. Completed at least 16 quarter units of applicable course work as a graduate student at this University, with the approval of the major advisor and with a minimum grade-point average of 3.0;
4. Submitted a formal program of graduate course work and thesis topic, prepared in consultation with the major advisor and with approval of the Department of English graduate committee;
5. Gained final approval of the program, including thesis topic, and of the candidacy itself by the dean of graduate studies.
6. Demonstrated competence (by a course equivalent to a foreign language 150 course or by an examination given by the Department of Foreign Languages) in a language other than English.

Requirements for Graduation

1. A minimum of 46 quarter units of acceptable graduate-level work included in the formal program, with no fewer than 33 completed in residence at this University and with at least 32 units gained from 600-level courses in English;
2. Advancement to candidacy for the degree and approval of the specific program of courses and thesis research topic;
3. A grade-point average of 3.0 (B) in all graduate course work and research fulfilling the requirements of the Master of Arts in English Composition and grades of "C" (2.0) or better in all courses in the program;
4. Completion of an acceptable thesis;
5. Any general requirements not cited above and noted on Page 316.

Degree Requirements

English Composition Concentration (46 units)

1. Eng 611. Theory of Rhetoric and Composition (4)
2. Eng 615. Discourse Analysis: Theories and Applications (4)
3. Eng 621. Approaches to Imaginative Writing (4)
4. Eng 650. Approaches to Literature (4)
5. Eng 660. Problems in Writing (4)

6. Eng 662. Internship in Composition (2)
7. Eng 690. Research Techniques (4)
8. Eng 695. Thesis Planning (2)
9. Eng 699A. Thesis (2)
10. Eng 699B. Thesis (2)
11. Fourteen units of electives to be chosen with at least twelve units appropriate to the study of writing and suitable to each student's specific goals. Courses may be chosen from upper-division and graduate offerings of any department in the university, subject to advance approval by the English graduate committee.

Teaching English as a Second Language Concentration (45 units)

1. Eng 611. Theory of Rhetoric and Composition (4)
2. Eng 615. Discourse Analysis: Theories and Applications (4)
3. Eng 650. Approaches to Literature (4)
4. Eng 660. Problems in Writing (4)
5. Eng 690. Research Techniques (4)
6. Eng 662. Internship in Composition (2)
7. Eng 664. Internship in ESL Composition (1)
8. Eng 523. English Syntax (4)
9. Eng 524. Sociolinguistics (4)
10. Eng 695. Thesis Planning (2)
11. Eng 699A. Thesis (2)
12. Eng 699B. Thesis (2)
13. Eight units of electives chosen from:
 - EEIB 607. Methods and Materials for Teaching English as a Second Languages (4)
 - EEIB 612. Social and Cultural Foundations for Language Learning (4)
 - EEIB 613. Cognition and Language Acquisition (4)
 - Eng 605. Special Topics in Language Study (4)
 - Anth 460. Language and Culture (4)
 - Psyc 305. Psycholinguistics (4)
 - Span 415. Comparative Linguistics (4)

Other upper-division and graduate courses appropriate to this concentration subject to advance approval by the English graduate committee and TESL specialist.

COURSE OFFERINGS IN ENGLISH (Eng)

Upper Division

510. English in the Secondary Classroom

English as a secondary school subject including language, literature and composition. Special emphasis on problems of improving and assessing student writing.
Prerequisites: English 311, 495 and at least two courses from English 301, 302, 303. (4 units)

513. Advanced Creative Writing

Intensive writing workshop in one genre: poetry, fiction, autobiography or others. Emphasis will change from quarter to quarter. May be repeated for credit as subject matter changes. *Prerequisite: English 317 or English 318 or consent of instructor.* (4 units)

515. Senior Seminar in Literature

Advanced study of a selected literary topic or problem. May be repeated for credit as topics change. *Prerequisites: senior standing and completion of at least two analysis classes (English 301, 302 or 303), and at least two additional upper-division courses in English.* (4 units)

522. Independent Study in Writing

Projects in advanced writing: fiction, non-fiction, poetry or drama. Outlines of the projects must be approved during the junior year and the completed projects approved at least one quarter before graduation. A total of eight units may apply to the English major or toward graduation. *Prerequisites: English 513 and departmental approval.* (4 units)

523. English Syntax

A linguistic approach to the analysis of modern English sentences and their component parts. Emphasis is placed on practical experience in analyzing structures in context. *Prerequisites: English 311 and 420.* (4 units)

524. Sociolinguistics

An examination of language within social and cultural contexts, including ethnic, social and regional dialect variations in the United States. *Prerequisites: English 311 and 420.* (4 units)

525. Seminar in Criticism

Advanced study in special topics in literary criticism. May be repeated for credit as topics change. (4 units)

530. Methods of Tutoring Writing

Study of the theory, principles and methods of tutoring students who need specific practice in writing. Those completing this course with a grade of "B" or better are eligible to participate in tutorial writing services on campus. Students in this class are expected to be proficient writers. May be repeated once for credit. *Prerequisites: English 101 and consent of instructor.* (2 units)

565. Special Studies in Writing

Studies in particular topics in writing, such as assessment, learning theory and research on the teaching of writing. *Prerequisite: consent of instructor.*
A. (2 units)
B. (2 units)

575. Internship in English

Supervised learning experience related to such activities as writing, research and editing in a work setting. A total of six units of English 575 may be applied toward graduation. Graded credit/no credit. *Prerequisites: junior standing with at least 16 units of course work in English on this campus with an overall grade-point average of 3.0 or better; consent of instructor; and departmental approval of a written proposal submitted in advance of the quarter in which the course is to be taken.* (2 units)

595. Special Studies in Literature

Independent studies of selected literary figures or study in a special area of literary theory or history. May be repeated for a maximum of 8 units of credit toward the B.A. in English and toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor, and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

601. Seminar in Poetry

Advanced study in particular kinds of poetry, with special focus on generic issues or problems. May be repeated for credit as topics change. (4 units)

602. Seminar in Dramatic Literature for Stage and Film

Advanced study in particular kinds of dramatic literature and film, with special focus on generic problems and issues. May be repeated for credit as topics change. (Also offered as Theater Arts 602. Students may not receive credit for both.) (4 units)

603. Seminar in Fiction

Advanced study in particular kinds of fiction, with special focus on generic issues or problems. May be repeated for credit as topics change. (4 units)

604. Seminar in Nonfiction Prose

Advanced study in particular kinds of nonfiction prose with special focus on generic issues or problems. May be repeated for credit as topics change. (4 units)

605. Special Topics in Language Studies

Seminar in particular aspects of language studies and their empirical application. May be repeated for credit as topics change. *Prerequisites: English 311 and 420.* (4 units)

611. Theory of Rhetoric and Composition

Traditional and contemporary approaches to rhetoric, composition and style. (4 units)

615. Discourse Analysis: Theories and Applications

A study of contemporary theories of linguistic analysis and their applications to literature and composition. *Prerequisites: English 311 or equivalent and English 611.* (4 units)

621. Approaches to Imaginative Writing

Traditional and contemporary approaches to imaginative writing; emphasis on means of encouraging different styles and modes of expression. *Prerequisite: English 317 or 318 or 513 or consent of instructor.* (4 units)

631. Approaches to Professional Writing

Emphasis on writing and teaching the techniques of composing professional reports, abstracts, reviews, and of editing technical manuals and preparing articles for professional journals. (4 units)

650. Approaches to Literature

Study and practice of various critical approaches, such as the moral, formalistic, psychological, archetypal, with particular attention to their assumptions about the meaning and function of literature. (4 units)

651. Seminar in a Literary Period

Advanced study in a specific literary period. May be repeated for credit as topics change. (4 units)

660. Problems in Writing

Seminar in the development of techniques to resolve specific problems of student writing. This course will include an internship component. May be repeated once for credit. *Prerequisite: English 611.* (4 units)

662. Internship in Composition

A practical application of the principles studied in English 660. Supervised tutoring work in practical situations dealing with composition. May be repeated once for credit. *Prerequisites: English 611 and 660.* (2 units)

664. Internship in ESL Composition

Supervised tutoring work in practical situations focused specifically on problems in working with ESL composition. May be repeated once for credit. *Prerequisites: English 611 and 660.* (5 units)

666. Seminar in Writing

Studies in particular topics in writing. May be repeated for credit as topics change; a maximum of 8 units of credit may be applied to the Master of Arts in English Composition program. *Prerequisite: consent of instructor.* (2 units)

670. Writing Across the Disciplines

Approaches to writing used in disciplines other than English. Emphasis on development of assignments and varying forms of presentation. *Prerequisite: consent of instructor.* (4 units)

690. Research Techniques

Critical study of research methods and resources, including bibliography. Topics covered will be appropriate to a focus on English composition. (4 units)

695. Thesis Planning

Preparation of thesis proposal and annotated bibliography. *Prerequisite or co-requisite: English 690.* (2 units)

698. Extended Enrollment

Independent study leading to completion of requirements for the master's degree. To maintain continuous enrollment, graduate students who have completed course work should enroll in English 698 until thesis is completed. *Prerequisites: completion of all course work and consent of Graduate Advisory Committee.* (0 units)

699. Thesis

Topic must be appropriate to a focus on English composition.

- A. *Prerequisites: advancement to candidacy and approval of graduate coordinator.* (2 units)
- B. *Prerequisites: advancement to candidacy and approval of graduate coordinator.* (2 units)

HEALTH SERVICES

Master of Science in Health Services Administration

Department of Health Science and Human Ecology

*Physical Sciences Building, Room 119
880-5339*

MASTER OF SCIENCE IN HEALTH SERVICES ADMINISTRATION

Requirements (45 units)

The Master of Science in Health Services Administration is appropriate for students preparing to become top-level health service administrators or managers in hospitals, health maintenance organizations, medical group clinic managers, nursing homes, public health departments, state and federal health agencies, military health services or other health service organizations.

Specific entrance requirements have been established by the university and the Department of Health Science and Human Ecology. Information about the entrance requirements are available at the department office.

Admission to the M.S. Program

In addition to the general requirements of the university, specific requirements for admission to classified graduate status are:

1. Either A or B below:
 - A. A baccalaureate degree in health science;
 - B. A related degree, plus completion of the following courses:
 - HSci 371. Community Health Services
 - HSci 415. Medical Care Organizations
 - HSci 451. Principles of Epidemiology
 - HSci 470. Health Behavior
 - Info 309. Information Management
 - Math 305. Statistics: Hypothesis Testing and Estimation
2. A minimum grade-point average of 3.0 for the major or for the last 90 quarter units of the bachelor's degree, or at least 12 units of graduate work;
3. Three letters of recommendation, one from the school where the candidate recently graduated, or from someone who can attest to your academic and scholastic ability in a graduate degree program;
4. A double-spaced paper not to exceed 3 pages providing a biographical sketch of the student's life, background and experiences. Please conclude the paper with a discussion (not to ex-

ceed 1 page) which addresses the reasons for applying to this graduate program plus career goals and aspirations;

5. The department's M.S. in Health Services Administration Application Form.

Students who do not meet the above criteria may be admitted as conditionally classified graduate students. To attain fully classified status, such students must satisfy conditions set by the department's graduate committee, usually including completion of at least 12 quarter units of appropriate course work at California State University, San Bernardino with a grade-point average of 3.0 or better and removal of deficiencies, if any, including completion of lower-division prerequisite courses.

Advancement to Candidacy

In order to be advanced to candidacy, the student must have:

1. Achieved classified status;
2. Been accepted by a major advisor from the faculty of the Department of Health Science and Human Ecology who will also accept chairing the student's thesis committee if thesis option is selected;
3. Completed at least 12 quarter units of required course work as a graduate student at this university with approval of the major advisor and with a minimum grade-point average of 3.0;
4. Gained a recommendation for advancement to candidacy from the graduate committee of the Department of Health Science and Human Ecology;
5. Submitted a formal program of graduate course work prepared in consultation with the major advisor and approved by the Graduate Committee of the department of Health Science and Human Ecology. The program will include an internship or a thesis topic;
6. Gained final approval of the program, including thesis topic (if thesis option is chosen) and of the candidacy itself by the dean of graduate studies.

Requirements for Graduation

In addition to the general requirements of the University and the department:

1. A minimum of 45 units of approved graduate-level work included in the formal program, with at least half of the units required for the degree gained from 600-level courses in Health Science and Human Ecology;
2. Advancement to candidacy for the degree and approval of the specific program of courses and thesis research topic (if thesis option is chosen);
3. A grade-point average of 3.0 (B), or better, in all graduate course work and research fulfilling the requirements of the Master of Science in Health Services Administration, and grades of 2.0 (C) or better in all courses in the program;

4. Either A or B below:
 - A. Completion and defense of an acceptable thesis;
 - B. Completion of the internship with a final project.

Classified and conditionally classified graduate students in the Master of Science program must complete their degree requirements within five years.

Degree Requirements

Thesis Option (45 units)

1. Acct 503. Financial and Managerial Accounting (4)
2. HSci 598. Research Methodology in Health Science (4)
3. HSci 600. Seminar in Health and Human Ecology (4)
4. HSci 610. Organization Management and Planning of Health (4)
5. HSci 655. Economic and Financial Principles of Health Services (4)
6. *Four units chosen from:*
 - HSci 630. Administration of Health Care Programs (4)
 - HSci 640. Administration of Health Education Programs (4)
 - HSci 650. Administration of Environmental Management Programs (4)
7. *Twelve units chosen in consultation with the department advisor from the following:*
 - Econ 590. Seminar in Economics (4)
 - HSci 590. Current Topics in Health Administration and Planning (2)
 - HSci 595E. Independent Study (5)
 - HSci 620. Advanced Topics in Epidemiological Methodology (4)
 - HSci 632. Health Policy and Decision-Making (2)
 - HSci 660. Advanced Topics in Health Science and Human Ecology (2)
 - HSci 670. Directed Readings (5)
 - Info 609. Information Management Systems (4)
 - Mgmt 601. Organization Theory and Behavior (4)
 - Mgmt 640. Methods of Organizational Change (4)
 - Mgmt 641. Personnel Administration (4)
 - Mktg 696. Marketing Strategy (4)
 - PA 462. Public Personnel Administration (4)
 - PA 463. Governmental Budgeting (4)
 - PA 514. Management of Private Nonprofit Organizations (4)
 - PA 564. Local Public Administration (4)
 - PA 568. Accounting for Government and Not-for-Profit Organizations (4)
 - PA 615. Public Financial Management (4)

or other electives upon approval of major advisor.

8. *Nine units as follows:*

- HSci 699A. Thesis Research and Thesis (3)
- HSci 699B. Thesis Research and Thesis (3)
- HSci 699C. Thesis Research and Thesis (3)

Internship/Project Option (45 units)

1. Acct 503. Financial and Managerial Accounting (4)
 2. HSci 598. Research Methodology in Health Science (4)
 3. HSci 600. Seminar in Health and Human Ecology (4)
 4. HSci 610. Organization Management and Planning of Health (4)
 5. HSci 655. Economic and Financial Principles of Health Services (4)
 6. *Four units chosen from:*
 - HSci 630. Administration of Health Care Programs (4)
 - HSci 640. Administration of Health Education Programs (4)
 - HSci 650. Administration of Environmental Management Programs (4)
 7. *Twelve units chosen in consultation with the department advisor from the following:*
 - Econ 590. Seminar in Economics (4)
 - HSci 590. Current Topics in Health Administration and Planning (2)
 - HSci 595E. Independent Study (5)
 - HSci 620. Advanced Topics in Epidemiological Methodology (4)
 - HSci 632. Health Policy and Decision-Making (2)
 - HSci 660. Advanced Topics in Health Science and Human Ecology (2)
 - HSci 670. Directed Readings (5)
 - Info 609. Information Management Systems (4)
 - Mgmt 601. Organization Theory and Behavior (4)
 - Mgmt 640. Methods of Organizational Change (4)
 - Mgmt 641. Personnel Administration (4)
 - Mktg 696. Marketing Strategy (4)
 - PA 462. Public Personnel Administration (4)
 - PA 463. Governmental Budgeting (4)
 - PA 514. Management of Private Nonprofit Organizations (4)
 - PA 564. Local Public Administration (4)
 - PA 568. Accounting for Government and Not-for-Profit Organizations (4)
 - PA 615. Public Financial Management (4)
- or other electives upon approval of major advisor.

8. *Nine units as follows:*

- HSci 697A. Internship in Health Science: Field Work (3)

- HSci 697B. Internship in Health Science: Field Work (3)
 HSci 697C. Internship in Health Science: Field Work and Final Project (3)

COURSE OFFERINGS IN HEALTH SCIENCE (HSci)

Upper Division

525. Health Data Analysis and Demography

Introduction to analysis of health data using statistical procedures, development of skills for determining analytical techniques and procedures for interpretation and presentation of resultant data; examination of sources and evaluation of demographic data and relationships to such topics as fertility, morbidity, mortality, population projection, life tables and migration. *Prerequisites: Health Science 451 and Mathematics 305 or 350 or consent of instructor.* (4 units)

580. Pre-Professional Practice in Dietetics

Application of knowledge and skills in the Approved Pre-Professional Practice Program in dietetics (AP4). Students must enroll in this year long sequence: the first term in A and B, the second term in C and D, and the third term in E and F. *Prerequisites: bachelor's degree, completion of Didactic Program in Dietetics Plan V, acceptance into AP4, and consent of program director.*

- A. (6 units)
- B. (6 units)
- C. (6 units)
- D. (6 units)
- E. (6 units)
- F. (6 units)

590. Current Topics in Health Administration and Planning

Presentation and analysis of a particular issue or topic in health services administration or planning. May be repeated for credit as topics change. (2 units)

595. Independent Study

Research in special topics including library studies and/or laboratory work under the direction of a faculty member. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

598. Research Methodology in Health Science

Research methods and application to contemporary health and environmental problems. Health data analysis and development of skills for determining appropriate analytical techniques and procedures. *Prerequisite: Mathematics 305 or 350 or consent of instructor.* (4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Seminar in Health and Human Ecology

Philosophical foundations of health and human ecology. Historical, contemporary and professional perspectives. (4 units)

610. Organization Management and Planning of Health

Organizational, environmental, socio/political and behavioral aspects of health and health delivery systems. Ecological perspectives on planning and administrative approaches in developing, modifying and sustaining modern health systems. *Prerequisites: Health Science 371 and 600.* (4 units)

620. Advanced Topics in Epidemiological Methodology

Concepts and methodologies of contemporary epidemiology and their relationship to managing and planning health and environmental systems. *Prerequisites: Health Science 451 and 598.* (4 units)

630. Administration of Health Care Programs

Economic forces which impact on health and health delivery systems and an assessment of the distribution of financial resources required to sustain these systems. Emphasis on trends in financing health care and the economic influence of reimbursement policies on financial decision-makers. *Prerequisites: Finance 503 and Health Science 371, 600 and 610.* (4 units)

632. Health Policy and Decision-Making

Issues and problems in the area of health administration. Emphasis on quality assurance, legal aspects, policy development and decision-making as related to health care planning operations. *Prerequisites: Health Science 371, 600 and 610.* (2 units)

640. Administration of Health Education Programs

Current developments in health education related to management and planning of health promotion programs, including strategies to facilitate communication, decision-making and problem solving. *Prerequisites: Health Science 470, 600 and 610.* (4 units)

650. Administration of Environmental Management Programs

Analysis of local, state and national environmental and occupational health programs including program planning and evaluation. Comparative study of international environmental management problems, styles and techniques. *Prerequisites: Health Science 352, 600 and 610.* (4 units)

655. Economic and Financial Principles of Health Services

Micro- and macroeconomic aspects of health services, various payment approaches, third-party reimbursement systems, budgeting and financial analysis, decision-making and planning in health services and organizations. (4 units)

660. Advanced Topics in Health Science and Human Ecology

Analysis of current literature, practices, procedures and issues in health science and human ecology at local, state, national and international levels. May be repeated for credit as topics change. (2 units)

670. Directed Readings

Directed independent study of classic and contemporary writings in a defined area combined with scheduled individual and small group conferences with supervising faculty member. *Prerequisites: graduate standing and consent of instructor.* (5 units)

697. Internship in Health Science

Supervised field work in hospitals, health care facilities, private or public health services or agencies. Students must complete Health Science 697A, 697B, and 697C before any credit can be granted. Each section requires 240 contact hours.

- A. Field Work *Prerequisite: completion of at least 24 units of approved course work toward graduation.* (3 units)
- B. Field Work *Prerequisite: Health Science 697A.* (3 units)
- C. Field Work and Final Project *Prerequisite: Health Science 697B.* (3 units)

698. Extended Enrollment

Independent study leading to completion of requirements (other than course work) for the master's degree. Students enrolled in this course will have full use of university facilities. *Prerequisites: advancement to candidacy and consent of department.* (0 units)

699. Thesis Research and Thesis

Independent graduate research conducted under the guidance of the major department advisor and resulting in thesis and successful defense. *Prerequisites: Health Science 598 and 600 and advancement to candidacy.*

- A. (3 units)
- B. (3 units)
- C. (3 units)

INTERDISCIPLINARY STUDIES

Master of Arts in Interdisciplinary Studies

Office of Dean, Graduate Studies

Administration Building, Room 126
880-5058

The university offers a limited number of courses outside of its department and school structure.

Also offered as interdisciplinary studies are the certificate programs in international relations and bilingual/cross-cultural studies. See Pages 272 and 109.

MASTER OF ARTS IN INTERDISCIPLINARY STUDIES

Requirements (48 units)

Occasionally a student wishes to pursue special interests or career goals that are not met by existing graduate programs. For this student, the Master of Arts in Interdisciplinary Studies offers the opportunity to create a unique master's degree program or one that is not otherwise substantially available in a current graduate program offered at this University.

Examples of such programs could include:

Educational Technology (education, art, computer science),

Human Services (social work, administration, criminal justice),

Humanities (combining various disciplines such as theatre arts and music),

Images of Women in Culture (art, literature, anthropology),

Liberal Studies (combining disciplines from the humanities and social sciences),

Social Gerontology (sociology, psychology, administration)

This individualized master's degree is designed to be a highly challenging academic program for the self-motivated student who has a clear perception of objectives and a background which will allow advanced study in the disciplines combined in the program. The Interdisciplinary Studies M.A. is designed to accommodate unique student interests or to prepare students for fields which require programs not presently offered at the University. It is not a replacement of existing degree programs but an enrichment of the University's offerings. This program is designed by the student in consultation

with the dean of graduate studies and three faculty members. The three faculty members, who comprise the student's faculty committee, are selected from more than one academic discipline. Once the program is approved by the committee, it is then submitted to the Committee on Graduate Education for its approval.

Admission to the Program

In addition to the general requirements of the university, specific requirements for admission to classified graduate status are:

1. A cumulative undergraduate GPA of at least 2.5 overall and at least 3.0 in the major;
2. A three-member faculty committee, the chair of which serves as primary advisor, to supervise the course of study;
3. An interdisciplinary studies M.A. proposal submitted, on forms available from the Office of the Dean of Graduate Studies, to the university Committee on Graduate Education; the program of courses must not significantly duplicate any existing degree program on this campus or on any other state college or university campus within a commutable distance;
4. Approval of the program proposal by the Committee on Graduate Education.

If approval is recommended by the Committee on Graduate Education, the student is formally admitted into the program in either conditionally classified or classified status.

Requirements for Graduation

1. The program of study should be interdisciplinary, including course work from at least two disciplines represented at the University;
2. The program of study must include a minimum of 48 quarter units of course work, at least half of all course work taken must be in 600-level courses;
3. The program of study must not include more than 20 units of independent study course work (including thesis and/or project research);
4. The program must include a synthesizing experience (comprehensive examination, project or thesis). Students may register for no more than nine units of thesis or project credit;
5. A GPA of 3.0 (B) must be earned in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program. Grades of "C-" (1.7) or less cannot be used toward the degree;
6. Students must satisfy the upper-division writing requirement prior to advancement to candidacy;
7. When students have completed between 12 and 20 units of course work on an approved study plan, it will be necessary for them to submit a formal letter to the Office of the Dean of Graduate Studies requesting advancement to candidacy;

8. Any additional general requirements not cited above and listed on Page 314.

COURSE OFFERINGS IN INTERDISCIPLINARY STUDIES (IS)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

695. Directed Graduate Studies

Graduate-level independent study for students in interdisciplinary Master of Arts programs; to be conducted under direct supervision of a faculty member from the student's committee and, if an interdisciplinary studies major, with approval of the committee on graduate education. (Credit to be arranged: 1 to 6 units)

696. Graduate Project

Preparation of the project for the M.A. under the direction of a faculty member from the student's committee and if an interdisciplinary studies major, with approval of the dean of graduate studies. Maximum of 9 credits applicable toward the M.A. *Prerequisite: advancement to candidacy.* (Credit to be arranged: 1 to 9 units)

698. Extended Enrollment

Independent study leading to completion of requirements (other than course work) for the Master of Arts degree. Students enrolled in this course have full use of university facilities. *Prerequisites: advancement to candidacy, approval of program graduate coordinator or, if an interdisciplinary studies major, consent of the dean of graduate studies.* (0 units)

699. Graduate Thesis

Preparation of the thesis for the Master of Arts under the direction of a faculty member from the student's committee and if an interdisciplinary studies major, with approval of the dean of graduate studies. Maximum of 9 credits applicable toward the Master of Arts. *Prerequisite: advancement to candidacy.* (Credit to be arranged: 1 to 9 units)

MATHEMATICS

Master of Arts in Teaching with a major in Mathematics

Department of Mathematics

*Biological Sciences Building, Room 111
880-5361*

MASTER OF ARTS IN TEACHING WITH A MAJOR IN MATHEMATICS

Requirements (48 units)

The M.A.T. with a major in Mathematics is designed with two tracks based on a common core of both mathematics and education courses. Track A provides a broad background in mathematics and mathematics teaching for those teachers who will play leadership roles in developing mathematics programs at the elementary and secondary school level. It provides additional breadth of mathematical training not feasible within the requirements for a mathematics major and an analysis of traditional and innovative mathematical objectives at all levels of mathematical education. Track B, with a greater mathematical content, is appropriate for those wishing to teach at the post-secondary level, and satisfies the requirements for a Community College Teaching credential.

Admission to the Program

In addition to the general requirements of the University, which include a baccalaureate degree from an accredited college, specific requirements for admission to the program are:

1. Completion with a grade of B or better of at least five upper-division mathematics courses applicable to a degree in mathematics. Minimum recommended preparation includes courses in linear algebra, probability, number theory and introductory analysis. Students who do not meet these criteria may be admitted as conditionally classified graduate students following review by the departmental graduate committee;
2. Submission of a completed MAT Mathematics application form;
3. Three letters of recommendation. These should attest to both your academic ability and your aptitude for the teaching profession;
4. A letter of not more than three pages, outlining your background, experience and interests. Be sure to include your reasons for seeking admission to this program and your career goals.

Advisors

Each graduate student will be assigned an advisor from the mathematics faculty, who, in conjunction with the student, will establish an advisory graduate committee to include a member from each of the departments of mathematics and education in addition to the advisor. This committee must approve the student's specific program of courses based on the student's preparation and interests.

Advancement to Candidacy

In order to be advanced to candidacy, the student must:

1. Achieve a classified status;
2. Submit a formal program of graduate work prepared in consultation with and approved by their advisory graduate committee;
3. Possess a teaching credential or provide evidence of a successful half year of full time teaching experience or equivalent;
4. Complete at least 15 quarter units of applicable work as a graduate student at this University, with the approval of the advisory committee and with a minimum grade-point average of 3.0;
5. Gain final approval of the program and of the candidacy itself by the dean of graduate studies.

Requirements for Graduation

1. Advancement to candidacy for the degree;
2. A minimum of 48 quarter units of acceptable graduate level work as specified below in the formal program under either Track A or Track B. No less than 32 units must be completed in residence at this university, of which at least 28 units must be in mathematics;
3. A grade-point average of at least 3.0 (B) in all required course work and at least a 2.0 (C) grade in all courses in the program;
4. A satisfactory score on a comprehensive examination;
5. Any additional general requirements not cited above and listed on Page 316.

Requirements for the M.A.T. Degree

A student must successfully complete a 24 unit core of courses in mathematics and mathematics teaching and a comprehensive examination. The remaining 24 units must be chosen in accordance with Track A (single subject emphasis) or Track B (post secondary emphasis).

Degree Requirements (48 units)

Core Courses

1. Math 604. Seminar in Mathematics and Mathematics Instruction I (4)
2. Math 614. Studies in Geometry (4)
3. Math 616. Studies in Algebra (4)
4. Math 618. Studies in Analysis (4)

5. ESec 666. Techniques and Application of Mathematics Education (4)
6. ESec 672. Educational Assessment in Mathematics Teaching (4)
- and
7. Mathematics Comprehensive Exam (0)

*Electives**24 units chosen as follows:**Track A (Single Subject Emphasis)*

1. *Four units chosen from:*
 - EElB 577. Mathematics Clinic (4)
 - Math 678. Teaching Practicum (2) (repeated once) for a total of (4)
 - ESec 678. Mathematics Clinic for Secondary Education (4)
2. *Four units chosen from:*
 - ESec 699. Secondary Subject Curriculum (4)
 - Math 605. Seminar in Mathematics and Mathematics Instruction I (4)
3. *Four units chosen from:*
 - Educ 600. Master's Degree Project (4)
 - Math 600. Master's Degree Project (4)
4. At least 12 units of elective courses in mathematics at the 500-level or above.

Track B (Community College Emphasis)

1. Eight units of elective courses in Mathematics at the 600-level.
2. At least sixteen additional units of electives in Mathematics at the 500- or 600-level.
3. A presentation of a project chosen in consultation with an advisor.

NOTE: Electives may not include Mathematics 605 and 606.

COURSE OFFERINGS IN MATHEMATICS (Math)

Upper Division

504. Quantitative Tools for Management

An intensive introduction to applied topics in statistics, algebraic functions and linear programming for graduate students. No credit will be awarded to students who have completed the following combination of courses: Management Science 304, Mathematics 110 or 120, and Management Science 210 or Psychology 210 or Mathematics 305 (or 350). May not be counted toward fulfilling requirements for any degree program offered by the School of Administration or the School of Natural Sciences. (Also offered as Management Science 504. Students may not receive credit for both.) (4 units)

510. Topics in Mathematics

Study of selected areas of advanced mathematics. May be repeated for credit with consent of instructor as topics change. *Prerequisite:* senior or graduate standing (4 units)

529. Advanced Geometry

Topics in affine and projective geometry with applications to Euclidean 2 and 3 space and to modern algebra. May not be taken for credit by students who have received credit for Mathematics 539. *Prerequisites:* Mathematics 331 and 345. (4 units)

545. Abstract Algebra I

An introduction to algebraic structures, including groups, rings and fields. May not be taken for credit by students who have received credit for Mathematics 570A. *Prerequisites:* Mathematics 331 and 345. (4 units)

546. Abstract Algebra II

Continuation of Mathematics 545. May not be taken for credit by students who have received credit for Mathematics 570B. *Prerequisite:* Mathematics 545 (or 570A). (4 units)

553. Analysis I

Continuous and differentiable functions, infinite series. Uniform convergence, computation with series, functions represented by integrals, theory of integration. May not be taken for credit by students who have received credit for Mathematics 550A. *Prerequisites:* Mathematics 252 (or 203), and 355. (4 units)

554. Analysis II

Continuation of 553. May not be taken for credit by students who have received credit for Mathematics 550B. *Prerequisite:* Mathematics 553 (or 550A). (4 units)

555. Introduction to Point-Set Topology

Topics to include topological and metric spaces, compactness, product spaces, connectedness, separation properties. May not be taken for credit by students who have received credit for Mathematics 560C. *Prerequisite:* Mathematics 355. (4 units)

557. Complex Variables

Analytic and harmonic functions, power series, Cauchy's Theorem and Cauchy's Formula. May not be taken for credit by students who have received credit for Mathematics 560B. *Prerequisites:* Mathematics 252 (or 203), 355 and 553 (or 550A). (4 units)

565. Mathematical Statistics

Likelihood ratio, estimators, distributions of estimators, theory of hypothesis testing, linear statistical models. May not be taken for credit by students who have received credit for Mathematics 445. *Prerequisite:* Mathematics 465 (or 340). (4 units)

573. Mathematical Methods of Physics III

A continuation of Mathematics 473 or Physics 473 with emphasis on advanced topics including calculus of variations, tensor analysis, and elliptic functions. Additional topics chosen from functions of a complex variable, integral transforms and probability. (Also offered as Physics 573. Students may not receive credit for both.) *Prerequisites:* Mathematics 331, 473 (or 425) or Physics 473 or (425), and at least one 300-level physics course. (4 units)

576. Introduction to Mathematical Models

Topics from linear and probabilistic models, computer simulation, difference and differential equation models. May not be taken for credit by students who have received credit for Mathematics 341. *Prerequisites:* Computer Science 201, Mathematics 331 and 465 (or 340). (4 units)

595. Independent Study

An independent study course for senior mathematics majors. *Prerequisites: Mathematics 331 and 553 (or 550A), a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Master's Degree Project

Prerequisite: advancement to candidacy. (4 units)

604. Seminar in Mathematics and Mathematics Instruction I

Topics in mathematics to illustrate development of higher order thinking skills including problem solving, geometric and symbolic techniques, role of computers, discovery methods, the role of proof. Selection of texts and other materials, curricular and classroom organization, evaluation. *Prerequisite: at least three upper division math courses which are applicable to the mathematics major.* (4 units)

605. Seminar in Mathematics and Mathematics Instruction II

Continuation of Mathematics 604. *Prerequisite: Mathematics 604.* (4 units)

606. Seminar in Mathematics and Mathematics Instruction III

Continuation of Mathematics 605. *Prerequisite: Mathematics 605.* (4 units)

610. Topics in Mathematics

Study of selected areas of advanced mathematics to be determined by the instructor. May be repeated for credit with consent of instructor as topics change. *Prerequisite: graduate standing.* (4 units)

611. Operations Analysis

Scientific approach to the resolution of operational problems. Structure and function of models and decision strategy commonly used in national policy analysis including measures of effectiveness, uncertainty and the misuse of modeling. (Also offered as Management Science 611. Students may not receive credit for both.) May not be counted toward fulfilling the requirements in the mathematics major. *Prerequisite: one of the following: Management Science 210, Psychology 210, Social Science 215, Mathematics 305 or 350 or equivalent.* (4 units)

614. Studies in Geometry

Advanced topics in affine, projective, elliptic, and hyperbolic geometry. Comparison of synthetic and analytic methods of proof. *Prerequisites: Mathematics 529 (or 539), 545 (or 570A) and admission to the MAT in Mathematics program.* (4 units)

616. Studies in Algebra

The theory of modules and groups, representations with applications such as Galois theory, coding theory and finite geometries. *Prerequisites: Mathematics 546 (or 570B) and admission to the MAT in Mathematics Program.* (4 units)

618. Studies in Analysis

Advanced topics in analysis such as Fourier analysis, differential geometry, differential equations, measure and integration. Topics selected to relate to other areas of mathematics. *Prerequisites: Mathematics 553 (or 550A); either 554 (or 550B), 555 (or 560C), or 557 (or 560B); and admission to the MAT in Mathematics program.* (4 units)

678. Teaching Practicum

Supervised practice in individual and/or classroom teaching. May be repeated for a total of four units. *Prerequisite: admission to the master's program in teaching with a major in mathematics.* (2 units)

NATIONAL SECURITY STUDIES

Master of Arts in National Security Studies

National Security Studies Office

*Biological Sciences Building, Room 29B
880-5534*

George Air Force Base

*C.B.P.O. Building Number 299, West Wing
(619) 246-8783*

March Air Force Base

*Education Center, Building 449
653-1135*

MASTER OF ARTS IN NATIONAL SECURITY STUDIES

Requirements (46 units)

The Master of Arts in National Security Studies is a professionally oriented, interdisciplinary, graduate-level program housed within the School of Social and Behavioral Sciences. The program is designed to develop an understanding of the substance and principles of defense policy analysis, strategic planning and arms control in relation to the contemporary international environment. Flexibility within elective courses permits the student to emphasize research in national security issues of his or her special interests.

The program is relevant to established career personnel in defense analysis and related specialties, the military services, the civil service and the intelligence community. Additionally, the program is structured to provide motivated persons holding a Bachelor of Arts degree and/or Bachelor of Science degree from an accredited institution with the higher educational skills necessary for entry into the above mentioned career fields or to pursue doctoral studies.

The program is intended for evening students primarily and, therefore, classes are predominantly scheduled between 6 and 10 p.m. The entire program is also offered off-campus at George Air Force Base in Victorville and March Air Force Base in Riverside. Once matriculated, students can take courses at either site.

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A baccalaureate degree from an accredited college or university;

2. Satisfy the National Security Studies graduate admissions committee that sufficient preparation and a satisfactory course of study has been pursued in preparation for graduate study. The committee may require and will notify individual applicants if the GRE General Test is required. (If the test is required and the GRE test results are not received in time for the entry term, admission will be in conditionally classified graduate standing.);
3. A minimum cumulative undergraduate grade-point average of at least 2.5 overall and at least 3.0 in the student's undergraduate major;
4. Competence in the following prerequisite courses or their equivalents:

Math 110.	College Algebra
PSci 203.	American Government
PSci 484.	National Security Policy (prerequisite for the core courses)

Competence in these areas may be demonstrated by:

- A. Formal completion of the course or its equivalent,

OR

- B. Credit by examination. (Not applicable to Political Science 484, National Security Policy);
5. Submission to the national security studies admissions committee of a brief statement (one or two double-spaced typewritten pages) of the student's preparation for graduate study and professional aspirations following receipt of the master's degree;
 6. Submission of three letters of recommendation from individuals familiar with the student's academic or professional work and potential to complete the program successfully. Letters must come directly from the writer on National Security Studies forms.

Students who meet the requirements for admission to graduate study, but who do not meet the program requirements, may be admitted to graduate study in unclassified postbaccalaureate status or to the program in conditionally classified graduate standing. When the specified deficiencies are removed, student status is changed from conditionally classified to classified. (Unclassified postbaccalaureate students may enroll, when space is available, in selected graduate courses.) No more than 20 quarter units of national security studies course work taken as an unclassified or conditionally classified graduate student may be applied to the program as a classified graduate student.

Advancement to Candidacy

To be advanced to candidacy, a student must have:

1. Achieved classified status;

2. Selected a graduate advisor to supervise the course of study;
3. Completed at least 16 quarter units of national security studies program course work at this university, and achieved a minimum GPA of 3.0 in those courses;
4. Successfully completed the upper-division writing requirement;
5. Filed a graduate program approved by the student's advisor, the national security studies program director and the dean of graduate studies.

Requirements for Graduation

1. A minimum of 46 quarter units of acceptable graduate-level work, with at least 36 quarter units completed in residence at California State University, San Bernardino. Thirty-two quarter units must be in 600-level courses and 12 units outside of political science. Students enrolling in approved 300- or 400-level elective courses must enroll concurrently in a two-unit graduate-level independent study course;
2. A grade-point average of at least 3.0 in all national security studies program courses taken;
3. Completion of the required course work;
4. Completion of the upper-division writing requirement;
5. Completion of acceptable comprehensive final written and oral examinations;
6. Any additional general requirements not cited above and listed on Page 316.

The instructor in each 600-level course will complete an evaluation of each student's performance and potential to complete the program successfully. These evaluations will be reviewed by the program director and maintained in the student's file for early consultation with the student about his or her future prospects in the program.

The Master of Arts in National Security Studies is a nonthesis course of study requiring both written and oral comprehensive examinations to be taken no earlier than in the last quarter of program course work. (Students must enroll in the Political Science Comprehensive Examination.) Students with less than a 3.0 GPA in the program will not be permitted to take the examinations. The comprehensive examination committee for each candidate will consist of the director of the national security studies program and two faculty teaching in the program, as mutually agreed between the candidate and faculty.

The written and oral examinations will cover four areas:

1. The required courses,
2. A field in which the student has done research or completed course work,
3. A second field in which the student has done research or completed course work,
4. A third field from the national security studies required reading list.

The examinations will be graded credit/no credit. An oral examination by the student's committee follows successful completion of the written examination. The oral examination is open for public attendance, but not participation. Should the candidate fail one or more written or oral examination areas, the entire oral or written examination may be repeated one time after remedial course work or study is completed. The scope and deadline for completion of this remedial work will be determined by the student's examination committee at a post-examination conference.

Prerequisite courses (12 units)

1. Math 110. College Algebra (4)
2. PSci 203. American Government (4)
3. PSci 484. National Security Policy (4)

Degree Requirements (46 units)

1. PSci 600. Arms Control and National Security Policy (4)
2. PSci 601. Strategic Systems and Strategic Thought (4)
3. PSci 602. Alliance Strategy and Regional Systems (4)
4. *Four units chosen from:*
 - Math 611. Operations Analysis (4)
 - MSci 611. Operations Analysis (4)
 - PA 671. Defense Budgeting and Management (4)
5. *Thirty units of electives chosen from the following: (16 units must be 600-level; 12 units must be from courses other than Political Science courses)*
 - A. Comm 611. Briefings and Presentations (4)
 - B. Econ 630. International Economic Issues (4)
 - C. Eng 631. Approaches to Professional Writing (4)
 - D. Geog 609. Seminar in the Geography of the Soviet Union (4)
 - E. Geog 621. Seminar in the Geography of Latin America (4)
 - F. Hist 556. Foreign Relations of the United States (4)
 - G. Hist 603. Seminar in Modern Military History (May be repeated for a maximum of eight units.) (4)
 - H. IS 695B. Directed Graduate Studies (May be repeated for a maximum of ten units.) (2)
 - I. Math 611. Operations Analysis (If not taken as a required course listed above.) (4)
 - J. MSci 611. Operations Analysis (If not taken as a required course listed above.) (4)
 - K. NSci 486. Science, Technology and Warfare (4)

- L. PA 671. Defense Budgeting and Management (If not taken as a required course listed above.) (4)
- M. PSci 304. Communist Political Systems (4)
- N. PSci 325. American Foreign Policy (4)
- O. PSci 590A. Seminar in International Relations: Naval Strategy/Maritime Policy (4)
- P. PSci 604. Seminar in International Law (4)
- Q. PSci 605. Topics in Strategy (May be repeated for a maximum of eight units.) (4)
- R. Soc 369A. Military Sociology: Comparative Military Sociology (2)
- or
- Mils 369A. Military Sociology: Comparative Military Sociology (2)
- S. Soc 369B. Military Sociology: American Military Sociology (2)
- or
- Mils 369B. Military Sociology: American Military Sociology (2)
- T. Soc 606. Sociology of Terrorism (4)
- Note:** Concurrent enrollment in a related 2-unit independent study (IS 695) course is required for each of the following courses chosen as an elective:
- Mils 369A. Military Sociology: Comparative Military Sociology (2)
- Mils 369B. Military Sociology: American Military Sociology (2)
- NSci 486. Science, Technology and Warfare (4)
- PSci 304. Communist Political Systems (4)
- PSci 325. American Foreign Policy (4)
- Soc 369A. Military Sociology: Comparative Military Sociology (2)
- Soc 369B. Military Sociology: American Military Sociology (2)

6. Successful completion of the comprehensive written and oral examinations.

Internship

Internships in Defense Analysis are available to interested students.

Transfer Credit

A maximum of 10 quarter hours of acceptable postbaccalaureate credit taken at an accredited institution of higher learning may be applied toward the requirements for the M.A. in National Security Studies. Selected Department of Defense courses (War College, Command and Staff College and Squadron Officers School) have been approved for transfer credit. Determination of acceptability of transfer credit requests is made upon receipt of of-

ficial transcripts by the Office of Admissions and Records and upon recommendation of the director of national security studies.

PSYCHOLOGY

Master of Arts in Psychology

with concentrations in:

- General-Experimental Psychology
- Industrial-Organizational Psychology
- Life-Span Development Psychology

Master of Science in Psychology

Department of Psychology

*Physical Sciences Building, Room 219
880-5570*

MASTER OF ARTS IN PSYCHOLOGY

Requirements (51 units)

The objective of the Master of Arts in Psychology is to provide a program of study with courses selected from a variety of basic areas in psychology. Students will select one of the following three concentrations as their area of specialization:

1. *General-Experimental Psychology Concentration* provides a broad background suitable for entry into doctoral programs and employment requiring a Master of Arts in Psychology;
2. *Industrial-Organizational Psychology Concentration* is designed primarily for individuals interested in obtaining positions in public and private sectors;
3. *Life-Span Developmental Psychology Concentration* provides a background suitable for careers dealing with children, families, or older adults.

Although each of these concentrations differs in emphasis, all three will prepare students for doctoral programs and career objectives such as teaching in a community college.

Admission to the M.A. Program

In addition to the general requirements of the university, specific requirements for admission to classified graduate status are:

1. A baccalaureate degree with a major in psychology; or with any other undergraduate major;
 - A. Score at least at the 50th percentile on the GRE advanced test in psychology;

OR

 - B. Satisfy the graduate admissions committee of the Department of Psychology that a satisfactory course of study has been pursued in preparation for graduate study in psychology;
2. A cumulative undergraduate grade-point average of at least 2.5 overall and at least 3.0 in the major;

3. A brief statement describing preparation for graduate study, the goals of graduate study and professional aspirations, to be submitted to the department;
4. Three letters of recommendation, with at least two from former professors. Letters should come directly from the writers or be included in a placement file. (It is the applicant's responsibility to determine if letters have been received.)
5. Satisfaction of the prerequisites of one of the following areas of concentration:
 - A. General-Experimental Psychology concentration, the following prerequisites or their equivalent:
 1. Psyc 100. Introduction to Psychology
 2. Psyc 210. Psychological Statistics
 3. Psyc 311. Introduction to Experimental Psychology
 - B. Industrial-Organizational Psychology concentration, the following prerequisites or their equivalent:
 1. Psyc 100. Introduction to Psychology
 2. Psyc 210. Psychological Statistics
or
MSci 210. Applied Business Statistics
 3. Psyc 302. Management and Organizational Behavior
or
Mgmt 302. Management and Organizational Behavior
 4. Psyc 311. Introduction to Experimental Psychology
 5. Psyc 355. Industrial Psychology
or
Mgmt 455. Human Resources Management
 6. Psyc 377. Tests and Measurements
 7. A course in microeconomics is recommended.
 - C. Life-Span Developmental Psychology concentration, the following prerequisites or their equivalent:
 1. Psyc 100. Introduction to Psychology
 2. Psyc 210. Psychological Statistics
 3. Psyc 311. Introduction to Experimental Psychology
and
4. A course in developmental psychology.

Students who meet the general requirements of the University for admission to graduate study, but who do not meet the Psychology Department's specific requirements for admission to classified status or who wish to take course work prior to spring quarter consideration of their application for classified status, may be admitted to the University in the unclassified postbaccalaureate status. Unclassified postbaccalaureate students may enroll, with consent of the Psychology Department, in selected graduate courses.

Advancement to Candidacy

To be formally advanced to candidacy, a student must have:

1. Achieved classified status;
2. Secured a graduate advisor to supervise the course of study;
3. Completed, with the approval of the student's advisor, at least 12 quarter units of graduate course work at this University, and achieved a minimum grade-point average of 3.0 in those courses;
4. Filed an approved graduate program which must have the approval of the student's advisor, the department chair or the graduate program coordinator and the dean of graduate studies;
5. Satisfactorily completed the upper-division writing requirement.

Requirements for Graduation

1. A minimum of 51 quarter units of approved graduate-level work, with 38 completed in residence at this university;
2. A grade-point average of at least 3.0 in all courses taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
3. Successful completion of the course work listed below, including a culminating experience consisting of the completion and defense of an original master's thesis;
4. Any additional general requirements not cited above and listed on Page 316.

Classified graduate students in the Master of Arts program must complete their degree requirements within five years of admission to that program. Students in classified status who fail to register for at least one course in the Psychology M.A. program over a period of two successive quarters will automatically be declassified.

Degree Requirements (51 units)

1. Psyc 569. Advanced Methods in Psychological Research (4)
2. Psyc 570. Advanced Psychological Statistics (5)
3. Psyc 571. Applied Problem Analysis (4)
4. Psyc 611. Advanced Independent Study (2 to 5) for a total of (5)
5. Psyc 699. Thesis (5)
6. *Twenty-eight units from one of the following concentrations, chosen in consultation with an advisor:*
 - A. General-Experimental Psychology Concentration
 - (1) Psyc 650. Advanced Cognitive Psychology (4)
 - (2) Psyc 652. Advanced Learning and Motivation (4)

- (3) Psyc 654. Advanced Life-Span Developmental Psychology (4)
- (4) Psyc 656. Advanced Physiological Psychology (4)
- (5) Psyc 658. Advanced Personality and Social Psychology (4)
- (6) Eight units of Psychology 500- or 600-level courses, excluding Psychology 595, 612 and 689.

B. Industrial-Organizational Psychology Concentration

- (1) Mgmt 601. Organization Theory and Behavior (4)
- (2) Psyc 660. Advanced Industrial Psychology (4)
- (3) Psyc 662. Motivation and Morale (4)
- (4) *Eight units chosen from:*
 - Psyc 650. Advanced Cognitive Psychology (4)
 - Psyc 652. Advanced Learning and Motivation (4)
 - Psyc 654. Advanced Life-Span Developmental Psychology (4)
 - Psyc 656. Advanced Physiological Psychology (4)
 - Psyc 658. Advanced Personality and Social Psychology (4)
- (5) *Eight units of electives chosen from:*
 - Mgmt 640. Methods of Organizational Change (4)
 - Mgmt 641. Personnel Administration (4)
 - Mgmt 642. Communication and Interpersonal Processes (4)
 - Mgmt 643. Organizational Design (4)
 - Mgmt 644. Industrial Relations (4)

C. Life-Span Developmental Psychology Concentration

- (1) Psyc 582. Advanced Seminar in Developmental Psychology (4)
- (2) Psyc 654. Advanced Life-Span Developmental Psychology (4)
- (3) Psyc 664. Applied Life-Span Developmental Psychology (4)
- (4) *Eight units chosen from:*
 - Psyc 650. Advanced Cognitive Psychology (4)
 - Psyc 652. Advanced Learning and Motivation (4)
 - Psyc 656. Advanced Physiological Psychology (4)
 - Psyc 658. Advanced Personality and Social Psychology (4)
- (5) Eight units of electives chosen in consultation with an advisor.

MASTER OF SCIENCE IN PSYCHOLOGY

Requirements (Thesis Option 82 units, Comprehensive Examination Option 78 or 79 units)

The area of concentration for the Master of Science degree program is clinical/counseling psychology.

The principal objective of this program is to provide students with practical skills in counseling, through supervised training and experience, and an understanding of relevant subject matter knowledge and research methodology. The program culminates with a thesis or comprehensive examination and an internship experience. The program is designed to meet the requirements of California Assembly Bill no. 3657 (Section 4980.37) which specifies educational qualifications for licensure as marriage, family and child counselors.

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A minimum cumulative undergraduate grade-point average of 2.5;
2. A minimum cumulative undergraduate grade-point average in the major of 3.0;
3. A baccalaureate degree in psychology;

or

one of the following:

- A. A baccalaureate degree in a major other than psychology and score at or above the 50th percentile on the Graduate Record Examination (advanced test in psychology);
 - B. A baccalaureate degree in a major other than psychology, including a course of study judged, by the Psychology Department graduate admissions committee, to be satisfactory preparation for graduate study in psychology.
4. Submission to the department graduate admissions committee of a brief statement (one or two typewritten pages) of the student's preparation for graduate study, goals in a graduate training program and professional aspirations following receipt of the master's degree;
 5. Submission of three letters of recommendation from people who are in a position to make relevant comments on the student's likely success in a graduate psychology program. At least two of these letters should be from former professors who are familiar with the student's scholarly activities.

Students who meet the general requirements of the university for admission to graduate study, but who do not meet the Psychology Department's specific requirements for admission to classified status

or who wish to take course work prior to winter quarter consideration of their application for classified status, may be admitted to the university in the unclassified postbaccalaureate status. Unclassified postbaccalaureate students may enroll, when space is available, in selected graduate courses.

Advancement to Candidacy

In order to be advanced to candidacy, a student must have:

1. Achieved classified status;
2. Secured a graduate advisor to supervise the course of study;
3. Completed, with the approval of the student's advisor, at least 16 quarter units of graduate course work at this university, and achieved a minimum grade-point average of 3.0 in those courses;
4. Filed an approved graduate program which must have the approval of the student's advisor, the department chair or chair of the graduate program committee and the dean of graduate studies.

Requirements for Graduation

1. Completed at least 78-82 quarter units (depending on the culminating option selected in item 2 below) of course work in an approved graduate program with a grade-point average of at least 3.0 and grades of "C" (2.0) or better in all courses in the program;
 2. One of the following:
 - A. Completed and defended an original thesis. Students selecting the thesis option take five units of Psychology 611 in preparation for the thesis.
- OR**
- B. Successful completion of the comprehensive examination. Students selecting the examination option take five units of Psychology 612 in preparation for the examination.
3. Received the approval of the student's graduate committee;
 4. Any additional general requirements not cited above and listed on Page 316.

The comprehensive examination is designed to be integrative in nature and is offered during the fall and spring quarters. Students who do not receive a passing grade may elect to:

- A. Repeat the examination, one additional time only;

OR

- B. Complete Psychology 699. Thesis;

Complete details regarding the examination option are available from the Psychology Department.

Classified graduate students in the Master of Science program must complete their degree requirements within five years of admission to that program. Students in classified status who fail to register for at least one course in the Psychology

M.S. program over a period of two successive quarters will automatically be declassified.

Degree Requirements

Thesis Option (82 units)

1. Psyc 569. Advanced Methods in Psychological Research (4)
 2. Psyc 570. Advanced Psychological Statistics (5)
 3. Psyc 583. Theories of Counseling and Psychotherapy (4)
 4. Psyc 591. Human Sexuality (2)
 5. Psyc 611. Advanced Independent Study (2 to 5) for a total of (5)
 6. Psyc 633. Professional Ethics and Law (4)
 7. Psyc 636. Cross-Cultural Counseling (2)
 8. Psyc 638. Substance Abuse (2)
 9. Psyc 654. Advanced Life-Span Developmental Psychology (4)
 10. Psyc 665. Psychopathology (4)
 11. Psyc 666. Family Processes (4)
 12. Psyc 671. Counseling Practicum I (5)
 13. Psyc 672. Counseling Practicum II (5)
 14. Psyc 673. Counseling Practicum III (5)
 15. Psyc 682. Adult Assessment (4)
 16. Psyc 687A. Independent Consultation in Counseling Skills (2)
 17. Psyc 687B. Independent Consultation in Counseling Skills (2)
 18. Psyc 687C. Independent Consultation in Counseling Skills (2)
 19. Psyc 697A. Internship in Counseling Psychology (4)
 20. Psyc 697B. Internship in Counseling Psychology (4)
 21. Psyc 697C. Internship in Counseling Psychology (4)
 22. Psyc 699. Thesis (5)
- (**Note:** Up to 8 units of Psychology 697A, 697B and 697C may be waived for appropriate work experience.)

OR

Comprehensive Examination Option (78 or 79 units)

1. Psyc 569. Advanced Methods in Psychological Research (4)
- or**
1. Psyc 570. Advanced Psychological Statistics (5)
 2. Psyc 583. Theories of Counseling and Psychotherapy (4)
 3. Psyc 591. Human Sexuality (2)
 4. Psyc 612. Directed Readings (2 to 5) for a total of (5)
 5. Psyc 633. Professional Ethics and Law (4)
 6. Psyc 636. Cross-Cultural Counseling (2)
 7. Psyc 638. Substance Abuse (2)
 8. Psyc 654. Advanced Life-Span Developmental Psychology (4)
 9. Psyc 665. Psychopathology (4)

10. Psyc 666. Family Processes (4)
11. Psyc 671. Counseling Practicum I (5)
12. Psyc 672. Counseling Practicum II (5)
13. Psyc 673. Counseling Practicum III (5)
14. Psyc 682. Adult Assessment (4)
15. Psyc 687A. Independent Consultation in Counseling Skills (2)
16. Psyc 687B. Independent Consultation in Counseling Skills (2)
17. Psyc 687C. Independent Consultation in Counseling Skills (2)
18. Psyc 697A. Internship in Counseling Psychology (4)
19. Psyc 697B. Internship in Counseling Psychology (4)
20. Psyc 697C. Internship in Counseling Psychology (4)
21. Six units of electives to be chosen from 500- or 600-level courses, excluding Psychology 575, 595, 611 and 612.
(**Note:** Up to 8 units of Psychology 697A, 697B and 697C may be waived for appropriate work experience.)

COURSE OFFERINGS IN PSYCHOLOGY (Psyc)

Upper Division

569. Advanced Methods in Psychological Research

Those aspects of philosophy of science and methods of inquiry as applied to procedures for obtaining and evaluating data as well as issues in experimental design. *Prerequisites:* one of the following: Psychology 210, Social Sciences 215; Psychology 311; and consent of department. (4 units)

570. Advanced Psychological Statistics

Review of concepts of statistical inference. Applications of statistical techniques to the design and interpretation of experimental research. Four hours lecture and three hours of laboratory. *Prerequisites:* Psychology 210 or Social Sciences 215; and consent of department. (5 units)

571. Applied Problem Analysis

Review and use of methodological and statistical strategies in the solution of applied research problems. Statistical computer packages will be used for data analysis. *Prerequisites:* Psychology 569 and Psychology 570 or equivalents; and consent of department. (4 units)

575. Internship in Psychology

Supervised work and study in private or public organizations. May be repeated once for credit. (Only four units of Psychology 575 may be applied to upper-division elective requirements in the psychology major.) Graded credit/no credit. *Prerequisites:* consent of instructor and department. (4 units)

578. Advanced Topics in Psychology

Selected advanced psychology topics with specific focus within relatively narrow content areas. May be repeated for credit as topics change. *Prerequisites: upper-division or graduate standing and consent of department.* (2 units)

580. Advanced Seminar in Psychology

Selected advanced topics which encompass areas of current theoretical and/or research interest in psychology. May be repeated for credit as topics change. *Prerequisites: upper-division or graduate standing and consent of department.* (4 units)

582. Advanced Seminar in Developmental Psychology

Selected current issues and advanced topics of theoretical, research or applied interest in developmental psychology. May be repeated for credit as topics change. *Prerequisites: upper-division or graduate standing and consent of department.* (4 units)

583. Theories of Counseling and Psychotherapy

Comparative analysis of major theories related to current practice of counseling and psychotherapy. *Prerequisites: classified standing and consent of department.* (4 units)

591. Human Sexuality

Study of human sexuality with emphasis on both healthy sexuality and sexual dysfunction. *Prerequisites: classified standing and consent of department.* (2 units)

595. Independent Study

Special topics involving literature and/or experimental effort. A total of eight units of Psychology 595 may be applied toward graduation, of which a maximum of four units can be applied toward the upper-division requirements in the psychology major. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 4 units)

597. Honors Seminar

Provides an opportunity for students to develop an independent project under faculty supervision. Students will meet as a class to discuss their projects, as well as various advanced topics. Enrollment is limited to students whose formal application for departmental honors is approved. *Prerequisites: Psychology 311 and consent of department.* (4 units)

598. Honors Project

Provides an opportunity for students to conduct an independent project under faculty supervision. Enrollment is limited to students whose formal application for departmental honors is approved. May not be used to satisfy the requirements of the psychology major.

A. *Prerequisites: Psychology 597 and consent of department.* (2 units)

B. *Prerequisites: Psychology 598A and consent of department.* (2 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

611. Advanced Independent Study

Advanced research on a specific topic selected by the student with the approval of the student's committee. May be repeated up to two times for a maximum of 15 units credit with approval of the student's committee and the department chair. Only five units are required for the master's degree. *Prerequisites: Psychology 569 or 570; advancement to candidacy and consent of department.* (Credit to be arranged: 2 to 5 units)

612. Directed Readings

Special topics involving supervised readings under the direction of a faculty member. *Prerequisites: graduate standing and consent of department.* (Credit to be arranged: 2 to 5 units)

630. Teaching of Psychology

Instructional methods for teaching of psychology at the college level. *Prerequisites: classified graduate status in psychology and consent of department.* (2 units)

633. Professional Ethics and Law

Ethical and legal considerations involved in counseling practice, including statutory law, legal trends, and ethical behavior in the mental health profession. *Prerequisites: classified standing in Psychology M.S. degree program and consent of department.* (4 units)

636. Cross-Cultural Counseling

Study of how cultural values and ethnic backgrounds influence counseling process and outcome, with focus on counseling with Blacks, Hispanics, Asians, and Native Americans. *Prerequisites: classified standing in M.S. Psychology degree program and consent of department.* (2 units)

638. Substance Abuse

Recognizing major forms of substance abuse, including alcoholism and other chemical dependency with focus on etiological factors and treatment considerations. *Prerequisites: classified standing in Psychology M.S. or M.A. degree programs and consent of department.* (2 units)

650. Advanced Cognitive Psychology

Research and theories in the psychology of thinking, knowing and remembering. *Prerequisites: classified graduate standing in Psychology M.A. or M.S. degree programs and consent of department.* (4 units)

652. Advanced Learning and Motivation

Major theories and research in learning and motivation with emphasis on current issues. *Prerequisites: classified graduate standing in Psychology M.A. or M.S. degree programs and consent of department.* (4 units)

654. Advanced Life-Span Developmental Psychology

Examination of the developmental processes, theories, issues and research in life-span developmental psychology. *Prerequisites: classified graduate standing in Psychology M.A. or M.S. degree programs and consent of department.* (4 units)

656. Advanced Physiological Psychology

Study of biological bases of behavior with emphasis on recent research. *Prerequisites: classified graduate standing in Psychology M.A. or M.S. degree programs and consent of department.* (4 units)

658. Advanced Personality and Social Psychology

Major theories, methods and empirical findings in personality and social psychology. *Prerequisites: classified graduate standing in Psychology M.A. or M.S. degree programs and consent of department.* (4 units)

660. Advanced Industrial Psychology

Critical evaluation of current research, advanced methods and professional problems in industrial psychology. Major topics include selection and placement, training, job analysis, job evaluation and performance appraisal. *Prerequisites: classified graduate standing in Psychology M.A. or M.S. degree programs and consent of department.* (4 units)

662. Motivation and Morale

Examination of motivation theories and research, issues and research in job satisfaction and quality of work life. *Prerequisites: classified graduate standing in Psychology M.A. or M.S. degree programs and consent of department.* (4 units)

664. Applied Life-Span Developmental Psychology

Conceptual, methodological and policy related issues in the application of developmental psychology to applied settings. *Prerequisites: classified standing and consent of department.* (4 units)

665. Psychopathology

Major types of human psychopathology, including descriptive symptomatology, etiological factors and treatment considerations. *Prerequisites: classified standing in Psychology M.S. degree program and consent of department; or Psychology 390, classified standing in Psychology M.A. degree program and consent of department; or Psychology 390 and consent of department.* (4 units)

666. Family Processes

Normal and dysfunctional family processes, including analysis of family systems, family communication and strategies for therapeutic intervention. *Prerequisites: classified standing and consent of department.* (4 units)

671. Counseling Practicum I

Training in development of basic counseling skills. Three hours lecture and six hours laboratory. *Prerequisites: classified standing in the Psychology M.S. degree program; concurrent enrollment in Psychology 687A and consent of department.* (5 units)

672. Counseling Practicum II

Training in counseling use and application of behavior modification skills. Three hours lecture and six hours laboratory. *Prerequisites: grade of no less than "B" in Psychology 671; concurrent enrollment in Psychology 687B and consent of department.* (5 units)

673. Counseling Practicum III

Training in advanced counseling skills. Three hours lecture and six hours laboratory. *Prerequisites: grade of no less than "B" in Psychology 672; concurrent enrollment in Psychology 687C and consent of department.* (5 units)

682. Adult Assessment

Training in methods of intellectual, vocational and personality assessment with adults. *Prerequisites: classified standing and consent of department.* (4 units)

683. Child Assessment

Training in methods of intellectual and personality assessment with children. *Prerequisites: classified standing and consent of department.* (4 units)

684. Topics in Counseling Psychology

Selected topics within counseling psychology. May be repeated for credit as topics change. *Prerequisites: classified standing and consent of department.* (4 units)

687. Independent Consultation in Counseling Skills

Individual consultation with staff concerning skills development. Graded credit/no credit.

- A. *Prerequisite: consent of department. Corequisite: concurrent enrollment in Psychology 671.* (2 units)
- B. *Prerequisite: consent of department. Corequisite: concurrent enrollment in Psychology 672.* (2 units)
- C. *Prerequisite: consent of department. Corequisite: concurrent enrollment in Psychology 673.* (2 units)

689. Externship in Applied Psychology

Supervised field work in a public or private setting for additional training and extension of skills developed in the graduate program. The externship requires approval by a faculty supervisor. Graded credit/no credit. *Prerequisites: Psychology 569 and consent of department.* (Credit to be arranged: 2 to 5 units)

697. Internship in Counseling Psychology

Supervised counseling field work in private or public mental health agencies. Designed to be taken three times (year long) for maximum of 12 units of credit. Graded credit/no credit. *Prerequisites: classified standing in the Psychology M.S. degree program, Psychology 671, 672, 687A, 687B, 687C; a grade of "A" or "B" in Psychology 673; and consent of department.*

- A. (4 units)
- B. (4 units)
- C. (4 units)

698. Extended Enrollment

Independent study leading to completion of requirements (other than course work) for the master's degree. Students enrolled in this course have full use of university facilities. *Prerequisites: advancement to candidacy and consent of department.* (0 units)

699. Thesis

Prerequisites: Psychology 569 and/or 570; Psychology 611; advancement to candidacy and consent of department. (5 units)

PUBLIC ADMINISTRATION

Master of Public Administration

*Accredited by the National Association of Public
Affairs and Administration*

School of Business and Public Administration

*Administration Building, Room 140
880-5700*

MASTER OF PUBLIC ADMINISTRATION

Requirements (48 units)

The Master of Public Administration (M.P.A.) is a broad program designed to prepare students for a career in administration in the public sector. The major objective is to provide the student with a generalist perspective of public administration, including tools of decision-making, an understanding of the total public administrative system, and a capacity for working within the public environment.

This degree is intended for graduate students and career employees seeking to develop and strengthen academic and professional skills for admission and advancement in the professional practice of public administration.

The program is open to all students, regardless of undergraduate major.

Admission to the M.P.A. Program

Although applications for admission to the University as a postbaccalaureate student are accepted at any time, the following schedule of dates has been established for actions by the School of Business and Public Administration in determining eligibility for classified graduate standing.

<i>Entry Quarter</i>	<i>Application and Documents Received by</i>	<i>Notification</i>
Winter, 1992	Oct. 1, 1991	Oct. 31, 1991
Spring, 1992	Jan. 1, 1991	Jan. 31, 1992
Fall, 1992	July 1, 1992	July 31, 1992
Winter, 1993	Nov. 1, 1992	Nov. 30, 1992

Note: The GRE should normally be taken 8-10 weeks prior to the application deadline to insure that the scores will be reported before the application deadline.

Applicants who apply after the deadline for a particular term and have all documents which show they meet all requirements for classified graduate standing may be admitted to conditionally classified standing. They will be converted to clas-

sified graduate standing during the next regular academic term. Students in this category should contact the director of graduate studies of the School of Business and Public Administration for further information.

Students who meet all entrance requirements except course prerequisites may be admitted to the program in a conditionally classified status until those prerequisite deficiencies are removed, at which time they will be advanced to classified graduate standing in the program.

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A bachelor's degree from an accredited college or university;
2. The following combination of grade-point average (GPA) and test score on the GRE (Graduate Record Examination): GRE score plus 400 times GPA on the last 90 sequential quarter units (60 semester units) of course work (including postbaccalaureate course work) equals or exceeds 2100;
3. Submission of GRE score by the deadline for that term; if test result is not submitted on time, admission status will be unclassified postbaccalaureate;
4. Competence in the following prerequisite courses or their equivalents:
 - A. Mgmt 495. Expository Writing for Administration
 - B. MSci 210. Applied Business Statistics
or
Math 305. Statistics: Hypothesis Testing and Estimation
 - C. PA 575. Internship in Public Administration (May be waived dependent upon related work experience.)

Competence in the above prerequisite courses may be demonstrated by:

- A. Formal completion of the course or its equivalent.
 - B. Credit by examination.
 - C. Waiver based on specialized work experience; must have documentation of work directly related to course to be waived; and must be approved by the school's director of graduate studies. (Students requesting waiver of any prerequisite courses must petition the school's director of graduate studies. Inquiries about a challenge examination or substitution for Management 495 should be directed to the dean of graduate studies.)
5. Academic motivation and personal qualifications demonstrated through submission of a 200-250 word statement of reasons for wishing to pursue the M.P.A. at California State University, San Ber-

nardino, and personal qualifications that will contribute to successful completion of the program.

Advancement to Candidacy

To be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed at least 20 quarter units of applicable graduate-level course work at the University, with a minimum grade-point average of 3.0;
3. Completed an approved graduate program plan in consultation with an M.P.A. advisor after achieving classified status;
4. Secured the approval of candidacy from the school's director of graduate studies and the dean of graduate studies.

Requirements for Graduation

1. A minimum of 48 quarter units of acceptable graduate-level work, consistent with the program plan (with a grade-point average of 3.0), with at least 36 units completed at this University;
2. At least 28 quarter units of credit taken after advancement to candidacy for the degree;
3. Successful completion of the required core and elective courses as outlined in the curriculum section;
4. A grade-point average of 3.0 (B) in all course work taken after admission to conditionally classified or classified status, and grades of "C" (2.0) or better in all courses in the program;
5. Successful completion of the graduate research project. The graduate research project is defined as an advanced field study in public administration including both literary and empirical research. This requirement is met by the student's enrollment in Public Administration 695 during the last quarter of work in the program and completion of the project to the satisfaction of the student's advisor.

OR

Successful completion of an integrative comprehensive examination which may be taken any fall, winter or spring term after advancement to candidacy. Students with GPA below 3.0 will not be permitted to take the examination. A "no credit" (NC) designation will be entered on the student's transcript if he/she fails the examination. Students who do not receive a passing grade may elect to:

- A. Repeat the examination, one additional time only, with the written approval of the school's director of graduate studies;

(Note: With the written approval of the school's director of graduate studies, students who do not receive a passing grade after repeating the examination may complete Public Administration 695, Graduate Research Project.)

OR

- B. Complete Public Administration 695, Graduate Research Project.

The examination will be offered fall, winter and spring quarters. *Only students who are currently classified, have been advanced to candidacy and are not on probation may take the examination.*

6. Any additional general requirements not cited above and listed on Page 316.

Degree Requirements (48 units)

Comprehensive Examination Option

1. Mgmt 603. Research Methods in Administration (4)
2. PA 611. Public Administration Theory and Practice (4)
3. PA 615. Public Financial Management (4)
4. PA 662. Human Resource Management in the Public Sector (4)
5. PA 663. Public Budgeting and Finance (4)
6. PA 664. Management of Public Organizations (4)
7. PA 672. Administrative Regulation (4)
8. PA 680. Public Policy Analysis (4)
9. *Sixteen units of electives to be chosen from any Department of Public Administration 500- or 600-level courses in consultation with an advisor or from related fields with advance approval from the chair of the Department of Public Administration. No more than twelve units may be taken from 500-level courses.*
10. Successful completion of the comprehensive examination.

Graduate Research Project Option

1. Mgmt 603. Research Methods in Administration (4)
2. PA 611. Public Administration Theory and Practice (4)
3. PA 615. Public Financial Management (4)
4. PA 662. Human Resource Management in the Public Sector (4)
5. PA 663. Public Budgeting and Finance (4)
6. PA 664. Management of Public Organizations (4)
7. PA 672. Administrative Regulation (4)
8. PA 680. Public Policy Analysis (4)
9. PA 695. Graduate Research Project (4)
10. *Twelve units of electives to be chosen from any Department of Public Administration 500- or 600-level courses in consultation with an advisor.*

Students may take up to two courses at the 500- or 600-level from related fields with the permission of the School of Business and Public Administration

graduate committee. Students who wish to take up to two 300- or 400-level courses must petition the school's director of graduate studies for approval in advance; for each course approved, they will be required to enroll simultaneously in a two-unit independent study course directly related to the course selected. These independent study units cannot be applied to any graduate degree unit requirements.

Only conditionally classified and classified students (or those who have the consent of the school director of graduate studies) may enroll in 600-level courses.

Students may not include more than 12 quarter units in extension and transfer credit from other colleges. California State University, San Bernardino will not consider for transfer credit course work from any institution which will not accept that work in its own advanced degree program.

COURSE OFFERINGS IN PUBLIC ADMINISTRATION (PA)

Upper Division

514. Management of Private Nonprofit Organizations

Analyzes the specific problems of management in private nonprofit organizations, including planning, personnel, financial and policy issues. (4 units)

516. Public and Non-Profit Project Management

Aspects of project management, including needs and feasibility assessment, project design, proposal writing, contract negotiation, funding, developing project teams, managing team conflict, monitoring, and evaluation. (4 units)

521. Principles of Planning

Introduction to local and regional community planning; includes methods of adoption and interorganizational relationships. (4 units)

557. Public Sector Labor Relations

Analyzes issues created by collective bargaining and unionism in public sectors. Examples: selection of bargaining agents, bargaining scope and obligation, impasse resolution and grievance procedure. (4 units)

564. Local Public Administration

Administrative characteristics and problems of public management in the urban area, including city, county, school and special district organization and functions. (4 units)

568. Accounting for Government and Not-for-Profit Organizations

Covers principles and practices of government fund accounting. Topics include governmental accounting concepts, types and structure of funds and accounts, application of generally accepted accounting principles to government and not-for-profit entities, presentation and uses of financial statements. Also offered as Accounting 568. Students may not receive credit for both. *Prerequisite: Accounting 211 or 311.* (4 units)

575. Internship in Public Administration

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (4 units)

590. Seminar in Public Administration

An intensive study of some phase of public administration to be developed by the instructor. May be repeated for credit as topics change. (4 units)

595. Independent Study

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 4 units)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

603. Research Methods in Administration

Principles of research design, development of research instruments, data accumulation and analysis of significant data. Critique of sample research studies from the literature and a research study conducted by the student. (Also offered as Management 603. Students may not receive credit for both.) *Prerequisite: Management Science 210.* (4 units)

611. Public Administration Theory and Practice

A critical analysis of major theories of public administration and their application, including development of the discipline, evolution of institutional forms both in the United States and in international settings, concepts of decision-making and role of public administration in society. (4 units)

612. Productivity Measurement in the Public Sector

Analysis of effective and efficient mobilization of agency resources. Includes examination of the environment, techniques, variables and perspectives in applying productivity measurements, particularly at the local level. (4 units)

615. Public Financial Management

Management of financial resources in public organizations with emphasis on local government. Topics include evaluation and monitoring of financial condition and trends, fiscal policy analysis, revenue and expenditure forecasting, capital planning and financing, cash flow management, debt administration, cost allocation and integrated financial management systems. (4 units)

616. Comparative Public Administration

Cross-national comparison of administrative systems, structures, processes and practices of developed and third world countries. (4 units)

617. Management of Local Economic Development

An introduction to the forms, processes and effects of economic development. Topics include: the dynamics of urban change and revitalization; the planning and financing of community economic development programs and projects; the role of public, neighborhood, advocacy and not-for-profit organizations, and social and environmental impacts of economic change. (4 units)

618. Local Government Development Finance

Explains and analyzes the major financing mechanisms for local government economic and public works development, their working and effectiveness. Topics include the background of the budget process and pertinent documents, an overview of economic development and public works finance, assessment districts, fiscal impact analysis, capital budgeting and financing, revenue forecasting, financing of redevelopment agencies, financial indicators, and case studies of development financing. (4 units)

628. Intergovernmental Administration

Administration of governmental programs in an intergovernmental context. Development of the federal system, relationships among federal, state and local governments, intergovernmental fiscal arrangements, practical problems in setting and implementing policies in an intergovernmental context. (4 units)

630. Program Evaluation

Purposes and methods of program evaluation in public and nonprofit organizations. Topics include selection of programs for evaluation, delineation of frame of reference, gathering of information, techniques of reporting, data analysis, comparative approaches of evaluation and ethical issues. *Prerequisite: Management Science 210 or Mathematics 305.* (4 units)

662. Human Resource Management in the Public Sector

Analysis of the personnel function as it applies to public sector organizations. Topics include development of modern public service, functions of personnel management, politics of the civil service, employment discrimination, labor management relations, professionalism and ethics, comparative public personnel administration, and computerization of human resources management. (Equivalent to Social Work 626. Students may not receive credit for both.) (4 units)

663. Public Budgeting and Finance

Budget concepts and their application in varied settings including federal, state, and local governments in the United States and overseas. Includes economic, management and political approaches to budgetary decision-making processes, and institutions, as well as major issues in contemporary budgeting. (4 units)

664. Management of Public Organizations

Issues in public management, including the role of the public executive, theories of public organizations, human behavior in public organizations, management of innovation and policy change, and information management. (4 units)

670. Emergency Management

Covers basic theory and practice in emergency management. Topics include approaches to emergency management, the political and administrative environment, administration of complex systems, behavioral aspects, and establishing and implementing community wide policies. (4 units)

671. Defense Budgeting and Management

Resource allocation and management in defense agencies. Topics include the defense planning and budgeting process; analytical tools for costing defense programs; administration of procurement; contingency and force planning; modernization, readiness and sustainability; and options in the allocation of defense resources. (4 units)

672. Administrative Regulation

Discretionary authority of regulatory agencies, the manner in which power is exercised by such agencies, and the administrative structure of the regulatory process. (4 units)

680. Public Policy Analysis

An integrative course examining the analytical, behavioral and systems sciences approaches to public administrative systems with emphasis upon the development of evaluative skills in applied decision-making.

Prerequisites: Public Administration 611, 662, and 663. (4 units)

690. Advanced Topics in Public Administration

Intensive study of an advanced topic in public administration. May be repeated for credit as topics change. (4 units)

695. Graduate Research Project

Required field study in public administration, including both literary and empirical research. *Prerequisites: completion of, or concurrent enrollment in, all other courses for the Master of Public Administration; and consent of instructor and school.* (4 units)

REHABILITATION COUNSELING

Master of Arts in Rehabilitation Counseling

Department of Advanced Studies in Education

*Faculty Office Building, Room 126
800-5606*

The Master of Arts in Rehabilitation Counseling offered by the School of Education is designed to prepare students to work with disabled people in public and private rehabilitation agencies, hospitals, industry and related fields. The graduate program, a two-year course of study, will train students in rehabilitation counseling, vocational evaluation and job placement of disabled persons. Graduates of the program will be prepared to take the certified rehabilitation counselor examination.

Rehabilitation counseling is a growing field in the mental health and allied health professions. A rehabilitation counselor helps disabled persons achieve their optimal social, psychological and vocational potential. Whenever possible, the final goal of rehabilitation is job placement. The rehabilitation counselor works with people who have different disabilities. The handicaps may be physical, intellectual, emotional or sociocultural.

Students will be encouraged to develop areas of specialization by completing research of individual interest and field work experiences in specialization areas. The rehabilitation counseling program also will offer a bilingual rehabilitation counseling experience. The purpose for having a bilingual experience is that there is a demand in the rehabilitation profession for counselors to have the skills to speak and work with Hispanic clients. The mission of the bilingual rehabilitation counseling experience will be to educate students to be rehabilitation counselors who will be able to speak conversational Spanish with Hispanic clients, have an understanding of Hispanic culture and be aware of the special needs of disabled Hispanic persons.

Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A baccalaureate degree with a major preferably in education psychology, sociology, or a related social service field;
2. A cumulative undergraduate grade-point average of 3.0 overall;
3. A cumulative grade-point average of 3.0 in all previous graduate work;

4. Completion of an interview with two faculty members to assess competence in interpersonal skills and aptitudes for the rehabilitation counseling profession;
5. Participation in a continual evaluation process which will assess personality and character, professional ethics and aptitude, counseling skills, oral and written language usage and many-sided interests.

Advancement to Candidacy

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified graduate standing;
2. Satisfactorily completed Rehabilitation Counseling 615 with a grade of "B" or better;
3. Completed with a GPA of 3.0 no more than 24 quarter units of course work;
4. Secured approval of candidacy from the School of Education;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the School and the dean of graduate studies;
6. Successful completion of a graduate writing requirement.

Requirements for Graduation

1. A minimum of 72 quarter units of acceptable work, with 59 completed in residence at this University;
2. A minimum of 48 quarter units of credit taken after a student has been advanced to candidacy for the degree;
3. A grade point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of one of the following:
 - A. Education 600. Master's Degree Project;
 - B. Written comprehensive examination.
5. Any additional general requirements not cited above and listed on Page 316.

Students who elect to complete a project will register for Education 600; these units will be part of the required 72 units.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project. Students who elect to complete a project are not required to take a comprehensive examination.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in

research, experimentation and creative endeavors; therefore, students should not feel bound to the traditional forms. All projects will be planned in consultation with the student's advisor.

The comprehensive examination is of an integrative nature and is designed to test the student's knowledge of the field of rehabilitation counseling rather than the subject matter of courses taken. The examination is offered once each quarter during the academic year. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions and Records before permission to take the examination can be granted. Students who do not receive a passing score the second time must petition the dean of graduate studies to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

Degree Requirements (72 units)

1. *Counselor education courses (24 units):*
 - EClg 652. Dynamics of Human Behavior (4)
 - EClg 655. Multicultural Counseling (4)
 - EClg 656. Counseling Theories and Techniques (4)
 - EClg 657A. Counseling Practicum (4)
 - EClg 677. Group Counseling and Guidance (4)
 - Educ 610. Research Methodology in Education (4)
2. *Rehabilitation counseling courses (44 units):*
 - EReh 605. Seminar Topics in Rehabilitation Counseling (Topic examples: Casework Management, Research in Rehabilitation, Current Issues in Rehabilitation and Bilingual Issues) (2) for a total of (4)
 - EReh 615. Introduction to Rehabilitation Counseling (4)
 - EReh 616A. Multiple Aspects of Disability: Medical (4)
 - EReh 616B. Multiple Aspects of Disability: Vocational (4)
 - EReh 617. Vocational Assessment and Development (4)
 - EReh 618. Applied Job Placement (4)
 - EReh 649. Organizational Development of Rehabilitation Services (4)
 - EReh 667. Practicum in Rehabilitation Counseling (4)
 - EReh 679. Fieldwork in Rehabilitation Counseling (4) for a total of (12)

3. One of the following options (4 units):

- A. Master's Degree Project Option
 1. Educ 600. Master's Degree Project (4)
- OR**
- B. Written Comprehensive Examination Option
 1. Successful completion of the written comprehensive examination.
 2. *Four units chosen from:*
 - EClg 531. Introduction to Counseling (4)
 - EClg 650. Applied Career Counseling (4)
 - EClg 693. Special Topics in School Psychology (4)
 - Educ 546. Computer Based Technology in Education (4)
 - ESpe 530. Psychology and Education of Exceptional Individuals (4)
 - EVoc 504. Principles of Adult Education (4)
 - EVoc 637. Foundations of Vocational Education (4)

CERTIFICATE PROGRAM

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field. Certain certificate programs contain 600-level courses as requirements and/or electives. These 600-level courses may not be taken by undergraduate students. Refer to Page 67 for additional certificate information.

Certificate in Rehabilitation Counseling

Certificate Requirements (28 units)

- EClg 531. Introduction to Counseling (4)
- EReh 615. Introduction to Rehabilitation Counseling (4)
- EReh 616A. Multiple Aspects of Disability: Medical (4)
- EReh 616B. Multiple Aspects of Disability: Vocational (4)
- EReh 617. Vocational Assessment and Development (4)
- EReh 618. Applied Job Placement (4)
- EReh 649. Organizational Development of Rehabilitation Services (4)

Note: Rehabilitation Counseling 615 must be completed with a grade of "B" or better to continue work in the certificate program.

COURSE OFFERINGS IN REHABILITATION COUNSELING (EReh)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

605. Seminar Topics in Rehabilitation Counseling

Current issues in rehabilitation counseling. Seminar topics include research in rehabilitation, casework management, bilingual issues in rehabilitation and current issues in rehabilitation counseling. May be repeated for credit as topics change. (2 units)

615. Introduction to Rehabilitation Counseling

Fundamental processes and practices of rehabilitation counseling including examination and analysis of the historical, philosophical, organizational, economic and legal basis of rehabilitation. Orientation and field visits to community rehabilitation counseling agencies required.

Prerequisite: Counselor Education 531 or consent of instructor. (4 units)

616. Multiple Aspects of Disability

Orientation to community resources providing services to disabled persons. Multiple aspects of disabilities. Implications of disabilities for vocational adjustments and rehabilitation processes.

A. Medical *Prerequisite: Rehabilitation Counseling 615.* (4 units)

B. Vocational *Prerequisite: Rehabilitation Counseling 616A or consent of instructor.* (4 units)

617. Vocational Assessment and Development

Survey of methods of vocational assessment of disabled persons. Vocational development theories, occupational and career information systems and psychology of work.

Prerequisites: Rehabilitation Counseling 615, 616A and 616B or consent of instructor. (4 units)

618. Applied Job Placement

Survey of methods and techniques of job placement with different client populations in rehabilitation settings. Job analysis, job seeking training skills, placement and follow-up for rehabilitation clients.

Prerequisites: Rehabilitation Counseling 615, 616A, 616B and 617 or consent of instructor. (4 units)

649. Organizational Development of Rehabilitation Services

Various types of training, administration, developmental and job placement programs used in industry, public and private rehabilitation agencies and insurance companies.

Prerequisites: Rehabilitation Counseling 615, 616A, 616B, 617 and 618 or consent of instructor. (4 units)

667. Practicum in Rehabilitation Counseling

Supervised practice in individual rehabilitation counseling in a laboratory setting. *Prerequisites: Counselor Education 657A and 677 or consent of instructor.* (4 units)

679. Fieldwork in Rehabilitation Counseling

Field experience in Rehabilitation Counseling. Students will take fieldwork in segments of 4 units for a total of 12 units. Students will be allowed to take up to two segments in one quarter. *Prerequisite: consent of program coordinator.* (4 units)

SOCIAL SCIENCES

Master of Arts in Social Sciences

School of Social Sciences

Faculty Office Building, Room 176
880-5500

MASTER OF ARTS IN SOCIAL SCIENCES

Requirements (45 units)

The objective of the M.A. in Social Sciences is to provide a student with training in the method and theory of social science, as well as the basic perspectives of the disciplines within it. While the program provides coursework in the breadth of the social sciences, its emphasis is on history, political science, economics, and geography, making the program attractive to those pursuing a career in or seeking advancement in secondary school teaching in the social sciences.

Admission to the M.A. Program

In addition to the general requirements of the University, specific requirements for admission to classified status are:

1. A baccalaureate degree in a social science discipline or in social science itself, or another baccalaureate degree with coursework that satisfies the School of Social and Behavioral Sciences that the student has received adequate preparation to undertake the program;
2. A cumulative undergraduate grade point average of at least 2.5 overall and at least 3.0 in the major;
3. A brief statement describing the applicant's preparation for graduate study and academic and professional goals, to be submitted to the School of Social and Behavioral Sciences; and
4. Three letters of recommendation, with at least two from former professors. Letters should come directly from the recommenders or be included in a placement file. It is the applicant's responsibility to determine if letters have been received.

Applicants who meet the general requirements of the University for admission to graduate study but do not meet the additional requirements listed above may be admitted to the University in the unclassified postbaccalaureate status. Unclassified postbaccalaureate students may enroll, when space permits, in graduate courses in the program. An unclassified postbaccalaureate student should consult with the School of Social and Behavioral Sci-

ences to determine what steps would be necessary to advance to classified status.

Advancement to Candidacy

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified status;
2. Secured a graduate advisor to supervise the course of study;
3. Completed, with the approval of the advisor, at least 12 quarter units of graduate course work at this University and achieved a minimum grade-point average of 3.0 in those courses;
4. Filed an approved program which must have the approval of the student's advisor, the dean of social and behavioral sciences, and the dean of graduate programs; and
5. Successfully completed the upper-division writing requirement.

Requirements for Graduation

1. Completed a minimum of 45 quarter units of acceptable graduate-level work, with at least 32 quarter units completed in residence at this University;
2. A grade-point average of at least 3.0 in all courses taken as part of the program;
3. Successful completion of the comprehensive examination or a thesis; and
4. At least 23 units of 600-level courses;
5. Any additional requirements not cited above and listed on Page 316.

Comprehensive examination: Students who choose the comprehensive examination option must take that examination no earlier than in the last quarter of program course work. These students must enroll in Social Sciences 999, Comprehensive Examination. Students with less than a 3.0 grade-point average in the program will not be permitted to take the examination. The comprehensive examination committee for each candidate will consist of the student's advisor and two other faculty teaching in the program, as mutually agreed between the candidate and the faculty. The comprehensive examination will cover the areas of social science treated in the course requirements. The examination will be graded pass/fail, and candidates failing the examination may take it a second time within one year. If a second examination is needed, the student and advisor should discuss what actions may be necessary to remedy the student's shortcomings. No student will be permitted to take the comprehensive examination more than twice.

Thesis: A student selecting the thesis option must complete a thesis that is approved by his or her thesis committee. The thesis must reflect original work and show a level of competence appropriate for a master's degree. The thesis committee shall consist of three faculty members, including the student's advisor, mutually agreed upon by the stu-

dent and faculty. By mutual agreement between the student and advisor, an additional member may be added to the committee. The student should enroll in Social Sciences 699, Thesis, in the quarter when completion of the thesis is anticipated.

Degree Requirements (45 units)

Core Courses (21 units)

1. SSci 600. Social and Cultural Perspectives in the Social Sciences (5)
2. Hist 600. Proseminar in History (4)
3. PSci 610. Proseminar in Political Science (4)
4. Econ 600. Proseminar in Economics (4)
5. Geog 600. Proseminar in Geography (4)

Electives (24 units)

Each student must select 3 concentration areas from within the 4 "major fields:" Economics, Geography, History and Political Science. For each concentration area, the student must take two courses as electives.

The following courses will be acceptable as electives:

- A. All courses numbered 500–699 in Economics, Geography, History and Political Science. At least one course must be at the 600 level.
- B. Other upper division courses in those departments as approved by the program coordinator.

COURSE OFFERINGS IN SOCIAL SCIENCES (SSci)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Social and Cultural Perspectives in the Social Sciences

The relationship of values, behavior, social setting, and environment in the analysis of human interaction. Both intracultural and cross-cultural perspectives will be addressed in light of sociological and anthropological theories. Substantive and methodological contributions will be presented. Laboratory will provide students with hands-on research skills component. Four hours lecture and two hours laboratory. *Prerequisite: consent of instructor.* (5 units)

699. Thesis

Independent graduate research resulting in thesis and successful defense. *Prerequisites: advancement to candidacy and consent of program director.* (4 units)

SOCIAL WORK

Master of Social Work

Department of Social Work

Temporary Offices, Room 143
880-5501

MASTER OF SOCIAL WORK

Requirements (90 units)

The Department of Social Work offers courses leading to the MSW degree and is designed to provide for the education of advanced social work practitioners. The program is based upon the requirements of the Council on Social Work Education and its six subject areas:

The MSW program is structured into two models: Model (1) offers 6 quarters of course work leading to the MSW degree within two academic years. Model (2) offers course work geared to students who need a longer period of time to complete course requirements. The program is committed to helping part-time students develop an educational plan which will meet employment and personal needs, to the extent possible.

The program offers students the choice of selecting one of two specializations within the concentration of Advanced Clinical Social Work Practice.

The two specializations are:

1. Mental Health—Prepares students to work in settings which serve the chronically mentally ill and those with problems of an emotional nature which interfere with social functioning.
2. Children, Youth and their Families—Prepares students to work in settings which respond to such varied problems as child abuse and neglect, aging and physical disabilities.

Students are required to seek advisement for the selection of their specialization, which must be made by the spring quarter of the first year.

Admission to the Program

1. A baccalaureate degree from an accredited college or university;
2. A 2.75 or better grade-point average in the last sixty semester units or 90 quarter units taken. Good standing in the last college attended;
3. An academic background in the liberal arts;
4. A year of full-time paid experience, one year internship in a social agency, or relevant volunteer service (this requirement may be waived);
5. Evidence of personal qualifications, motivation and potential that give promise of a successful social worker; an autobiographical statement; three letters of reference from individuals who

are familiar with the student's academic work potential and level of maturity;

6. The following courses or their equivalents:
 - A. Soc 308. Introduction to Sociological Research
 - B. Soc 339. Socialization
 - C. A course in Biology or Health Science which would give the student an understanding of basic human physiology.

Course Waivers

Students are permitted to test out of required courses in the foundation year curriculum in HBSE, POLICY and RESEARCH by passing a comprehensive examination in each required course at the level of a grade of "A." Courses which are successfully challenged must be substituted with an approved elective so that a total of 90 units is completed for the master's degree.

Advanced Standing

Students with BSW degrees from universities or colleges with accredited BSW programs may have the following courses waived if they have achieved grades of "A" in their POLICY, HBSE and/or RESEARCH SEQUENCES:

- SW 604A. Human Behavior and Social Environment
- SW 606A. Social Welfare Policy
- SW 612. Social Research Applications I

Each course waived for the qualified BSW applicant must be substituted with an approved elective so that a total of 90 units is completed for the master's degree.

Advancement to Candidacy

To be advanced to candidacy, a student must have:

1. Achieved classified status;
2. Satisfied the general University requirements for advancement to candidacy;
3. Passed a comprehensive examination upon completion of the designated number of units:
 - A. Full-time students—48 units
 - B. Part-time students—48 units
4. Selected a thesis committee and gained approval of the thesis topic by the thesis committee;
5. Completed with a grade-point average of 3.0, at least 48 quarter units of course work approved by a social work advisor.

Requirements for Graduation

1. A minimum of 90 quarter units of designated graduate courses as approved on the petition for advancement to candidacy. Seventy-seven of the quarter units must be completed at this university (with the exception of MSW course work from an accredited program);
2. A grade-point average of at least 3.0 in all course work;

3. Completion of a culminating research project or a thesis;
4. Up to one half of the course work (45 quarter units) may be transferred from an accredited MSW program. Only grades of "B" or better will be accepted and students must first be accepted for admission following the usual admission procedures. Courses not in keeping with program requirements may not be acceptable;
5. Any additional requirements not cited above and listed on page 316.

Electives

In lieu of taking all eight units of electives in the social work curriculum, students may elect to take four units of relevant 600-level electives from other disciplines with the permission of the director of social work. The remaining four units would be taken from the social work curriculum.

Accreditation

The program was granted candidacy status (a pre-accreditation status) by the Commission on Accreditation of the Council on Social Work Education in July 1989. The granting of candidacy status indicates that the commission believes that a program has potential to be awarded full accreditation in two or possibly three years. The granting of candidacy, while a very positive indication, does not assure that a program will achieve full accreditation, though the program has every indication that this will happen. Questions regarding accreditation should be directed to the director of the department of social work.

Residency

The student must carry an academic workload of eight (8) units of 600-level course work for three (3) consecutive quarters to achieve the residency requirement of full-time graduate status as defined by the University.

Degree Requirements

The program is structured into two Models: Model 1, for full-time students, will offer six quarters of course work leading to the MSW degree in two years. All courses must be taken in the following sequence:

Model 1 (Full-time students) *Foundation Year (48 units)*

1. *Fall:*
 - A. SW 602A. Social Work Practice with Individuals, Families and Small Groups: Introduction (4)
 - B. SW 604A. Human Behavior and the Social Environment: Introduction (4)
 - C. SW 606A. Social Welfare Policy: Introduction (4)
 - D. SW 608A. Field Work (4)

2. *Winter:*
 - A. SW 600. Social Work with Task Groups, Organizations and Communities (4)
 - B. SW 604B. Human Behavior and the Social Environment: Advanced (4)
 - C. SW 606B. Social Welfare Policy: Advanced (4)
 - D. SW 608B. Field Work (4)
3. *Spring:*
 - A. SW 602B. Social Work Practice with Individuals, Families and Small Groups: Intermediate (4)
 - B. SW 608C. Field Work (4)
 - C. SW 612. Social Research Applications I (4)
 - D. A four unit 600-level elective in Social Work or another department on campus with advisor consent.
 - E. Review of field, classroom, and writing competency performance and other relevant information by the faculty before the student may be advance to candidacy.

Specialization Year (42 units)

1. *Fall:*
 - A. SW 640. Advanced Clinical Social Work Practice (4)
 - B. SW 608D. Field Work (4)
 - C. SW 613. Social Research Applications II (4)
 - D. SW 622. Crisis Intervention and Emergency Treatment (4) or an approved elective.
2. *Winter:*
Mental Health Concentration
 - A. SW 608E. Field Work (4)
 - B. SW 619. Seminar in Practice in Mental Health (4)
 - C. SW 620. Social Work with Alcohol and Drug Abuse (4)
 - D. SW 625A. Research Project (2)

Children, Youth and their Families Specialization:

 - A. SW 608E. Field Work (4)
 - B. SW 614. Child Abuse and Neglect (4)
 - C. SW 618. Seminar in Practice with Children, Youth and their Families (4)
 - D. SW 625A. Research Project (2)
3. *Spring:*
Mental Health Concentration:
 - A. SW 608F. Field Work (4)
 - B. SW 616. Human Sexuality in Social Work Practice (4) or an approved elective
 - C. SW 624. Integrative Seminar in Mental Health (2)
 - D. SW 625B. Research Project (2)

Children, Youth and their Families Specialization:

- A. SW 608F. Field Work (4)
- B. SW 616. Human Sexuality in Social Work Practice (4)
or an approved elective
- C. SW 623. Integrative Seminar in Children, Youth and Families (2)
- D. SW 625B. Research Project (2)

Note: The research project represents the culminating graduate experience. A thesis may still be done as an expansion of the research project but is optional and the four elective units Spring Quarter of the advanced year might be used for this purpose. The research project is developed in SW 613 (Social Research Applications I) and is carried out in the field setting. It must be on a specialization-specific topic, must use objective analysis and will be presented to faculty and field personnel orally and in writing, but on a reduced scale than would be expected in a thesis.

Model 2, for part-time students, offers course work leading to the MSW degree in three or four years.

Option 1 (3 years)

(Option 1 utilizes summer course work. Summer course tuition rates are higher than those for the regular year. This option is entirely voluntary.) The requirements must be taken in the following sequential order:

Foundation Year (24 units)

- 1. *Fall:*
 - A. SW 604A. Human Behavior and the Social Environment: Introduction (4)
 - B. SW 606A. Social Welfare Policy: Introduction (4)
- 2. *Winter:*
 - A. SW 604B. Human Behavior and the Social Environment: Advanced (4)
 - B. SW 606B. Social Welfare Policy: Advanced (4)
- 3. *Spring:*
 - A. SW 600. Social Work with Task Groups, Organizations and Communities (4)
 - B. SW 602A. Social Work Practice with Individuals, Families and Small Groups: Introduction (4)
- 4. *Summer Session 1:*
SW 622. Crisis Intervention and Emergency Treatment (4) or an approved elective

5. *Summer Session 3:*

- SW 616. Human Sexuality in Social Work Practice (4) or an approved elective

Second Year (24 units)

- 1. *Fall:*
 - A. SW 602B. Social Work Practice with Individuals, Families and Small Groups: Intermediate (4)
 - B. SW 608A. Field Work (4)
- 2. *Winter:*
 - A. SW 608B. Field Work (4)
 - B. SW 612. Social Research Applications I (4)
- 3. *Spring:*
 - A. SW 608C. Field Work (4)
 - B. A four unit 600-level elective in Social Work or another department on campus with advisor consent.
 - C. Review of field, classroom, and writing competency performance and other relevant information by the faculty before the student may be advanced to candidacy.

4. *Summer Session 1:**Mental Health Specialization:*

- SW 620. Social Work with Alcohol and Drug Abuse (4)

Children, Youth and their Families Specialization:

- SW 614. Child Abuse and Neglect (4)

5. *Summer Session 3:*

- SW 613. Social Research Applications II (4)

Third Year (42 units)

- 1. *Fall:*
 - A. SW 608D. Field Work (4)
 - B. SW 640. Advanced Clinical Social Work Practice (4)
- 2. *Winter:*
 - Mental Health Specialization:*
 - A. SW 608E. Field Work (4)
 - B. SW 619. Seminar in Practice in Mental Health (4)
 - C. SW 625A. Research Project (2)
 - Children, Youth and their Families Specialization:*
 - A. SW 608E. Field Work (4)
 - B. SW 618. Seminar in Practice with Children, Youth and their Families (4)
 - C. SW 625A. Research Project (2)
- 3. *Spring:*
 - Mental Health Specialization:*
 - A. SW 608F. Field Work (4)
 - B. SW 624. Integrative Seminar in Mental Health (2)
 - C. SW 625B. Research Project (2)

Children, Youth and their Families Specialization:

- A. SW 608F. Field Work (4)
- B. SW 623. Integrative Seminar in Children, Youth and Families (2)
- C. SW 625B. Research Project (2)

Option 2 (4 years)

The requirements must be taken in the following sequential order:

Foundation Year (24 units)

1. *Fall:*
 - A. SW 604A. Human Behavior and the Social Environment: Introduction (4)
 - B. SW 606A. Social Welfare Policy: Introduction (4)
2. *Winter:*
 - A. SW 604B. Human Behavior and the Social Environment: Advanced (4)
 - B. SW 606B. Social Welfare Policy: Advanced (4)
3. *Spring:*
 - A. SW 600. Social Work with Task Groups, Organizations and Communities (4)
 - B. SW 602A. Social Work Practice with Individuals, Families and Small Groups: Introduction (4)

Second Year (24 units)

1. *Fall:*
 - A. SW 602B. Social Work Practice with Individuals, Families and Small Groups: Intermediate (4)
 - B. SW 608A. Field Work (4)
2. *Winter:*
 - A. SW 608B. Field Work (4)
 - B. SW 612. Social Research Applications I (4)
3. *Spring:*
 - A. SW 610. Integrative Seminar I (4)
 - B. SW 608C. Field Work (4)

Third Year (16 units)

1. *Fall:*
 - SW 622. Crisis Intervention and Emergency Treatment (4)
or an approved elective
2. *Winter:*
 - SW 616. Human Sexuality in Social Work Practice (4)
or an approved elective
3. *Spring:*
 - Mental Health Specialization:*
 - A. SW 613. Social Research Applications II (4)

- B. SW 620. Social Work with Alcohol and Drug Abuse (4)

Children, Youth and their Families Specialization:

- A. SW 613. Social Research Applications II (4)
- B. SW 614. Child Abuse and Neglect (4)

Fourth Year (26 units)

1. *Fall:*
 - A. SW 602C. Social Work Practice with Individuals, Families and Small Groups: Advanced (4)
 - B. SW 608D. Field Work (4)
2. *Winter:*
 - Mental Health Specialization:*
 - A. SW 608E. Field Work (4)
 - B. SW 619. Seminar in Practice in Mental Health (4)
 - C. SW 625A. Research Project (2)
 - Children, Youth and their Families Specialization:*
 - A. SW 608E. Field Work (4)
 - B. SW 618. Seminar in Practice with Children, Youth and their Families (4)
 - C. SW 625A. Research Project (2)
3. *Spring:*
 - Mental Health Specialization:*
 - A. SW 608F. Field Work (4)
 - B. SW 624. Integrative Seminar in Mental Health (2)
 - C. SW 625B. Research Project (2)
 - Children, Youth and their Families Specialization:*
 - A. SW 608F. Field Work (4)
 - B. SW 623. Integrative Seminar in Children, Youth and Families (2)
 - C. SW 625B. Research Project (2)

Note: The research project represents the culminating graduate experience. A thesis may still be done as an expansion of the research project but is optional and the four elective units Spring Quarter of the advanced year might be used for this purpose. The research project is developed in SW 613 (Social Research Applications II) and is carried out in the field setting. It must be on a specialization specific topic, must use objective analysis and will be presented to faculty and field personnel orally and in writing but on a reduced scale than would be expected in a thesis.

Note: Pending changes required by accreditation and University curriculum evaluations may require curricular changes. Students must consult the Department of Social Work for any changes in policies, procedures and program description.

COURSE OFFERINGS IN SOCIAL WORK (SW)

Graduate/Postbaccalaureate

May not be taken by undergraduate students

600. Social Work with Task Groups, Organizations and Communities

An examination of the impact of organizations and task groups on service delivery systems. Emphasis on networking and advocacy strategies. *Prerequisites: classified graduate standing and consent of department.* (4 units)

602. Social Work Practice with Individuals, Families and Small Groups

Analysis of theories, practice, principles and techniques relating to the treatment of individuals, families and small groups. *Prerequisites: classified graduate standing and consent of department.*

- A. Introduction (4 units)
- B. Intermediate (4 units)

604. Human Behavior and Social Environment

Critical appraisal and review of individual development from infancy through old age, from biological, sociological, cultural and psychological perspectives. *Prerequisites: classified graduate standing and consent of department.*

- A. Introduction (4 units)
- B. Advanced (4 units)

606. Social Welfare Policy

An analysis and study of social welfare from a historical perspective, making note of the ideologies that have affected our contemporary social welfare policy. *Prerequisites: classified graduate standing and consent of department.*

- A. Introduction (4 units)
- B. Advanced (4 units)

608. Field Work

Advanced practice experience in public and private agencies with individuals, families, groups, formal organizations and communities. Graded credit/no credit. *Prerequisites: classified graduate standing and consent of department.*

- A. (4 units)
- B. (4 units)
- C. (4 units)
- D. (4 units)
- F. (4 units)

612. Social Research Applications I

Theory, practice and methods of data collection and analysis. An examination of the role of research in the development of social work. *Prerequisites: classified graduate standing and consent of department.* (4 units)

613. Social Research Applications II

Further examination of the role of research in the development of social work theory, practice and methods of data collection and analysis. *Prerequisites: Social Work 612 and consent of department.* (4 units)

614. Child Abuse and Neglect

Critical analysis of child maltreatment and neglect, focusing upon recent research and treatment innovations. *Prerequisites: classified graduate standing and consent of department.* (4 units)

616. Human Sexuality in Social Work Practice

Critical analysis of issues and problems associated with human sexuality with an emphasis on sexually oppressed groups and the sexual life cycle from a psychosocial perspective. *Prerequisites: classified graduate standing and consent of department.* (4 units)

618. Seminar in Practice with Children, Youth and their Families

Specialized practice issues related to the evaluation and treatment of client dysfunctions in settings which serve children, youth and families. *Prerequisites: Social Work 602C and consent of department.* (4 units)

619. Seminar in Practice in Mental Health

Specialized practice issues related to the evaluation and treatment of client dysfunctions in settings that serve the chronically mentally ill as well as those experiencing emotional distress. *Prerequisites: Social Work 602C and consent of department.* (4 units)

620. Social Work with Alcohol and Drug Abuse

An examination of theories, research and treatment regarding alcohol and drug abuse. *Prerequisites: classified graduate standing and consent of department.* (4 units)

622. Crisis Intervention and Emergency Treatment

An examination of crisis theory. Principles and practice of crisis intervention treatment. *Prerequisites: classified graduate standing and consent of department.* (4 units)

623. Integrative Seminar in Child, Youth and Families

Integration of practice theory, research, HBSE and social policy to develop responses to problems of clients serviced by agencies who respond to the needs of children, youth and families including child abuse, physical disability, problems of the elderly and financial difficulties. *Prerequisites: Social Work 618 and consent of department.* (4 units)

624. Integrative Seminar in Mental Health

Integration of practice theory, research, HBSE and social policy in developing responses to problems of clients in agencies who respond to chronic mental illness and emotional dysfunction. *Prerequisites: Social Work 619 and consent of department.* (4 units)

625. Research Project

A culminating graduate experience in which a clinical issue specific to the student's field setting and concentration is objectively evaluated and presented orally and in writing. *Prerequisites: Social Work 619 and consent of department.*

- A. (2 units)
- B. (2 units)

626. Personnel Management

Prepares the student for work related to management and supervision of agency personnel. Focuses on development of job descriptions, training, employee assignment and evaluation, sexual harassment and employee development. Equivalent to Public

Administration 662. Students may not receive credit for both. *Prerequisites: classified graduate standing and consent of department.* (4 units)

627. Psychopathology

An advanced human behavior course giving the student an understanding of dysfunctional behavior and the application of DSM III to the diagnostic function.

Prerequisites: Social Work 604A, 604B and consent of department. (4 units)

628. Community Organization

Prepares the social work student for work in communities to identify community problems, to stimulate development of appropriate organizations and to bring about social change. *Prerequisites: classified graduate standing and consent of department.* (4 units)

629. Advanced Social Welfare Policy Analysis

Examines in an analytical, behavioral and systems sciences approach social welfare policy with an emphasis on the development of evaluative skills in applied decision making. This course is equivalent to Public Administration 680, Public Policy Analysis. The student may not receive credit for both. *Prerequisites: Social Work 606A, 606B and consent of department.* (4 units)

630. Social Work Intervention with Families

Study of social work practice situations in which the family is the primary unit of treatment. Includes the work of Satir, Ritchie and Bowen among others. *Prerequisite: consent of department.* (4 units)

631. Social Work Intervention with Children

Preparation for social work practice with children who have serious social, emotional and physical difficulties. The course prepares students for work in social work settings such as family service and community mental health settings where dysfunctional children are often seen. *Prerequisite: consent of department.* (4 units)

632. Forensic Social Work

Focus on evidential and procedural rules in court testimony which relate to social work practice. Emphasis on court testimony involving child abuse and neglect, sexual violence, and institutionalization of the mentally ill. *Prerequisite: consent of department.* (4 units)

633. Social Work Intervention with the Elderly

Intervention with the elderly. Case management functions of social work practice with the elderly as well as clinical interventions in problems often troubling the elderly. *Prerequisite: consent of department.* (4 units)

635. Supervision in Social Work

Reviews of major supervisory functions in social work agencies with special attention to clinical supervision of practice, supervising compliance with agency policies and supervision of agency workload expectations. *Prerequisite: consent of department.* (4 units)

640. Advanced Clinical Social Work Practice

Advanced practice course for students in the clinical concentration. Considers practice issues, theories and techniques utilized in the Mental Health and Children, Youth and Families specializations. May not be taken for credit by students who have received credit for Social Work 602C. *Prerequisite: consent of department.* (4 units)

690. Special Topics in Social Work

An intensive study of some aspect of social work. May be repeated for credit as topics change. *Prerequisite: consent of department.* (4 units)

698. Extended Enrollment

Independent study leading to completion of requirements (other than course work) for the master's degree. Students enrolled in the course have full use of university facilities. *Prerequisites: advancement to candidacy and consent of department.* (0 units)

699. Thesis Research

Preparation of a thesis for the Master of Social Work degree program under the direction of a student's thesis committee. *Prerequisites: classified graduate standing and consent of department.* (4 units)

Faculty 1991-92



Dr. Loralee MacPike
Professor of English
California State University, San Bernardino
Outstanding Professor, 1990-91

John Abodol, 1990

Assistant Professor of Information and Decision Sciences
 B.A. 1976, University of Tabriz; M.A. 1981, University of Oklahoma; Ph.D. 1989, University of Texas.

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Ronald E. Barnes, Jr., 1965

Professor of Theatre Arts
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 B.M. 1971, Illinois State University; M.M. 1975, Ithaca College; Ph.D. 1986, Arizona State University.

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Ph.B. 1956, M.A. 1962 University of North Dakota; Ph.D. 1969, University of Redlands.

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+ Robert A. Blackey, 1968

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Billie G. Blair, 1988

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B.S. 1966, Texas Technological University; M.S. 1971, M.A. 1980, San Diego State University; Ph.D. 1983, Claremont Graduate School.

+ Marty Bloomberg, 1966

Librarian; Head, Collection Development

B.A. 1960, Texas Christian University; M.A. 1961, University of Denver; M.A.T. 1968, University of Redlands.

Craig G. Blurton, 1985

Associate Professor of Education

B.A. 1974, M.A. 1976, Ph.D. 1985, Arizona State University.

Sheldon E. Bockman, 1973

Professor of Management

B.A. 1958, M.A. 1960, University of Colorado; Ph.D. 1968, Indiana University.

Sarah Boeh, 1989

Assistant Professor of Physical Education

B.S. 1977, Illinois State University; M.A. 1985, Ohio State University.

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B.A. 1966, Inter-American University of Puerto Rico; M.A. 1969, University of Alberta, Canada; Ph.D. 1976, City University of New York Graduate School.

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A.B. 1963, Wheaton College; M.Div. 1966, United Theological Seminary; M.Th. 1967, Princeton Theological Seminary; M.S. in L.S. 1971, University of Southern California.

Stephen A. Bowles, 1974

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B.A. 1960, University of Denver; M.A. 1964, University of Connecticut; Ph.D. 1972, University of California, Santa Barbara.

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Professor of Education

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Dominic M. Bulgarella, 1969

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B.A. 1960, M.A. 1962, Ph.D. 1974, Michigan State University.

A. Vivien Bull, 1976

Professor of French

B.A. 1942, Cambridge University; M.A. 1973, Ph.D. 1977, University of New Mexico.

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B.S. 1975, Chengchi University (Taiwan Int'l.); M.S. 1979, Ph.D. 1983, Cornell University.

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Lecturer in Library

B.A. 1946, Walla Walla College; M.L.S. 1979, University of Southern California.

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Professor of Public Administration

B.A. 1967, M.P.A. 1969, California State College, Hayward; Ph.D. 1974, University of Southern California.

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B.A. 1969, M.A. 1970, University College Dublin; Ph.D. 1975, University of Georgia.

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B.A. 1963, California State College, Hayward; M.A. 1966, California State College, Los Angeles; Ph.D. 1971, University of California, Riverside.

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B.S. 1971, Agricultural, Mechanical and Normal College; M.S.Ed. 1976, Ph.D. 1983, Southern Illinois University.

Philip L. Herold, 1970

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B.A. 1971, University of California, Riverside; M.P.H. 1989, D.Hsc. 1990, Loma Linda University.

Charles D. Hoffman, 1974

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Peter Holliday, 1989

Assistant Professor of Art
B.A. 1975, Columbia College/University; M.A. 1977, Ph.D. 1983, Yale University.

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B.A. 1972, University of Albuquerque; M.A. 1977, St. Mary's University; Ph.D. 1989, University of California, Berkeley.

Dennis L. Ikenberry, 1965

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Assistant Professor of Education

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Professor of Marketing

B.S. 1962, Delhi University; LL.B. 1965, Poona University; M.B.A. 1973, Ph.D. 1984, McGill University, Montreal.

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Professor of German

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Professor of English

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Ward M. McAfee, 1965

Professor of History

A.B. 1961, M.A. 1962, Ph.D. 1965, Stanford University.

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B.S. 1976, M.Ed. 1977, Suffolk University; Ph.D. 1986, University of Southern California.

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Professor of Information and Decision Sciences

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B.S. 1969, B.S. 1972, M.S. 1975, Brigham Young University; Ph.D. 1980, Oregon State University.

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B.S. 1982, Southern Illinois University; M.A. 1983, California State University, Sacramento; Ph.D. 1984, Colorado State University.

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George McGinnis, 1989

Professor of Art

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B.A. 1969, Middle East College, Lebanon; M.B.A. 1973, Andrews University; Ph.D. 1980, Arizona State University.

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Assistant Professor of Education

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Assistant Professor of Management

B.A. 1977, Pitzer College; M.A. 1982, Ph.D. 1987, University of Michigan.

David M. Riefer, 1987

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Cheryl A. Riggs, 1988

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Iris Riggs, 1988

Assistant Professor of Education

B.A. 1981, Bethany College; M.S. 1985, Ph.D. 1988, Kansas State University.

Matt L. Riggs, 1988

Assistant Professor of Psychology

B.A. 1979, Bethany College; M.S. 1986, Ph.D. 1988, Kansas State University.

Dan C. Rinne, 1982

Associate Professor of Mathematics

B.S. 1975, University of Missouri, Columbia; M.A., Ph.D. 1979, University of California, Santa Barbara.

Terry L. Rizzo, 1988

Assistant Professor of Physical Education

B.A. 1973, Northeastern Illinois University; M.Ed. 1974, University of Arizona; Ph.D. 1983, University of Illinois, Urbana-Champaign.

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Assistant Professor of Anthropology

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James G. Rogers, 1974

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B.S. 1973, M.A. 1974, Brigham Young University; Ph.D. 1977, Ohio University.

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Associate Professor of Economics

B.A. 1968, University of California, Berkeley; M.S.W. 1973, University of North Carolina; Ph.D. 1985, University of Massachusetts, Amherst.

Richard H. Rowland, 1975

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B.A. 1965, San Diego State University; Ph.D. 1971, Columbia University.

Amanda Sue Rudisill, 1969

Professor of Theatre Arts

B.S. 1964, Millersville State College; M.A. 1966, Pennsylvania State University; Ph.D. 1972, Northwestern University.

Treadwell Ruml, II, 1990

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Kent M. Schofield, 1966

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Steven R. Wagner, 1974

Associate Professor of Education

B.A. 1964, San Jose State University; M.A. 1968, San Fernando Valley State College; Ph.D. 1973, Claremont Graduate School.

✓ Carl P. Wagoner, 1969

Professor of Criminal Justice

+ B.S. 1960, Ball State University; M.A. 1964, Ph.D. 1971, Indiana University.

Ching-Hua Wang, 1990

Assistant Professor of Biology

M.D. 1978, Beijing Medical College; Ph.D. 1986, Cornell University.

William Warehall, 1973

Professor of Art

B.F.A. 1968, Wayne State University; M.F.A. 1971, University of Wisconsin.

Lynda W. Warren, 1973

Professor of Psychology

B.A. 1964, College of William and Mary; Ph.D. 1970, University of Minnesota.

James Watts, 1989

Associate Professor of Public Administration

B.A. 1970, University of South Carolina; M.U.A. 1976, Virginia Poly. Institute and State University; J.D. 1980, Emory University; Ph.D. 1990, Vanderbilt University.

Kathryn Z. Weed, 1990

Assistant Professor of Education

A.B. 1967, University of Redlands; M.A. 1977, Georgetown University.

✓ George A. Weiny, 1967

+ *Professor of Physical Education*

B.A. 1957, Iowa Wesleyan College; M.A. 1962, State University of Iowa.

Michael G. Weiss, 1982

Associate Professor of Psychology

B.A. 1974, University of California, San Diego; M.S. 1978, University of Southern California; Ph.D. 1983, University of Florida.

L. Curtis Westbrook, Jr., 1989

Associate Professor of Accounting and Finance

B.S. 1960, M.Acc. 1963, Florida State University.

Peter J. Wetterlind, 1987

Professor of Computer Science; Chair, Department of Computer Science

B.S. 1964, University of Minnesota, Duluth; M.S.T. 1968, University of Wisconsin, Superior; M.S. 1974, Ph.D. 1976, University of Arizona; Ph.D. 1986, Texas A and M University.

Daniel S. Whitaker, 1985

Professor of Foreign Languages

B.A. 1971, Wake Forest University; M.A. 1973, Ph.D. 1985, University of Wisconsin.

✓ Edward M. White, 1965

+ *Professor of English*

B.A. 1955, New York University; M.A. 1956, Ph.D. 1960, Harvard University.

Franklin P. Williams III, 1988

Professor of Criminal Justice; Chair, Department of Criminal Justice

B.S. 1968, M.S. 1973, Ph.D. 1976, Florida State University.

Peter D. Williams, 1983

Associate Professor of Mathematics

B.S. 1979, Ph.D. 1983, University of St. Andrews, Scotland.

Robert D. Wilson, 1990

Associate Professor of Information and Decision Sciences

B.A. 1970, California State University, San Bernardino; M.B.A. 1971, Ph.D. 1975, University of California, Riverside.

Ruth C. Wilson, 1971

Professor of Biology

B.A. 1961, M.A. 1964, California State College, Los Angeles; Ph.D. 1971, Claremont Graduate School.

Alvin Wolf, 1975

Professor of Education

B.S. 1957, M.A. 1964, University of San Francisco; Ph.D. 1972, University of California, Berkeley.

Don Woodford, 1972

Professor of Art

B.A. 1963, Cornell College; M.A. 1964, Illinois State University; M.F.A. 1965, University of Wisconsin.

Joanna S. Worthley, 1988

Lecturer in Psychology

B.A. 1967, Marietta College; M.S. 1977, Springfield College; Ph.D. 1987, Claremont Graduate School.

Clifford Young, 1989

Associate Professor of Public Administration

B.A. 1969, California Baptist College; M.P.A. 1988, D.P.A. 1988, University of Southern California.

Robert L. Yowell, 1988

Professor of Theatre Arts; Chair, Department of Theatre Arts

B.A. 1966, Southeast Missouri State University; M.A. 1968, St. Louis University; Ph.D. 1972, Bowling Green State University.

Tong L. Yu, 1986

Assistant Professor of Computer Science

B.S. 1977, Chinese University of Hong Kong; M.S.E. 1982, Ph.D. 1986, Johns Hopkins University.

Kay Zemoudeh, 1990

Assistant Professor of Computer Science

B.S. 1981, M.S. 1984, University of Southwestern Louisiana; Ph.D. 1990, University of South Carolina.

Donna M. Ziebarth, 1977

Associate Professor of Nursing

B.S.N. 1959, P.H.N. 1960, Mount St. Mary's College; M.S. 1977, California State University, Los Angeles.

Jenny Zorn, 1989

Assistant Professor of Geography

B.A. 1980, Flagler College; M.A. 1982, Ph.D. 1990, Ohio State University.

42 - 4 = 38
+ 6 From 1970

Emeritus Faculty

Richard T. Ackley
Professor of Political Science, Emeritus, 1990

Robert G. Fisk
Professor of Education, Emeritus, 1973

Ernest Garcia
Professor of Education, Emeritus, 1990

Margaret K. Gibbs
Professor of Administration, Emeritus, 1980

Carol F. Goss
Professor of Political Science, Emeritus, 1988

John E. Hafstrom
Professor of Mathematics, Emeritus, 1979

Arlo D. Harris
Professor of Chemistry, Emeritus, 1988

Robert R. Harrison
Professor of Art, Emeritus, 1972

Charles V. Hartung
Associate Professor of English, Emeritus, 1977

Harold A. Jambor
Lecturer in Sociology, Emeritus, 1980

Dorothy Johnson
Professor of Nursing, Emeritus, 1983

Charles F. Kellers
Professor of Physics, Emeritus, 1988

Helene W. Koon
Professor of English, Emeritus, 1990

Nathan Kravetz
Professor of Education, Emeritus, 1985

Kenton L. Monroe
Professor of Psychology, Emeritus, 1988

Bernhardt L. Mortensen
Associate Professor of Sociology, Emeritus, 1978

C. Michael O'Gara
Professor of Physical Education, Emeritus, 1977

Mary G. Patterson
Professor of Nursing, Emeritus, 1985

Ralph Petrucci
Professor of Chemistry, Emeritus, 1990

John M. Pfau
Professor of History, President, Emeritus, 1982

Mireille G. Rydell
Professor of French, Emeritus, 1988

Robert A. Smith
Professor of History, Emeritus, 1982

Alexander Sokoloff
Professor of Biology, Emeritus, 1990

Helena V. Stanton
Associate Professor of Education, Emeritus, 1990

Gordon E. Stanton
Professor of Education, Emeritus, 1988

James D. Thomas
Professor of Political Science, Emeritus, 1990

Joseph K. Thomas
Vice President for Administration, Emeritus, 1982

Elton N. Thompson
Professor of Education, Emeritus, 1983

Del LaVerne Watson
Professor of Nursing, Emeritus, 1989

Robert L. West
Professor of Education, Emeritus, 1980

Special Appointments

Phyllis Benson, 1970
Studio Music Instructor
B.M. 1951, Wheaton College.

Elaine Johnson Dettmar, 1989
Studio Music Instructor
B.M. 1957, Westminster Choir College, Princeton.

Dennis Dockstader, 1978
Studio Music Instructor
B.A. 1973, California State College, San Bernardino.

Sandra Fenton, 1983
Studio Music Instructor
B.A. 1976, Pomona College.

John Gates, 1989
Studio Music Instructor
A.R.C.M. 1968, Royal College of Music, London.

Herbert Iverson, 1976
Studio Music Instructor
B.M. 1958, M.M. 1961, University of Redlands.

Paul L. Kardos, 1984
Studio Music Instructor
B.S. 1969, M.Ed. 1972, University of Nevada.

Patrick LaVergne, 1990
Studio Music Instructor
B.M. 1980, M.M. 1982, Louisiana State University.

Gordon Lazarus, 1990

Studio Music Instructor

B.M. 1978, M.A. 1980, California State University,
Northridge; D.M.A. 1985, University of Southern California.

Anthony J. Lupica, 1984

Studio Music Instructor

B.M. 1981, North Carolina School of the Arts; M.M. 1983,
University of Southern California.

Catherine Graff MacLaughlin, 1976

Studio Music Instructor

B.A. 1962, University of California, Berkeley.

Victoria Shapiro, 1967

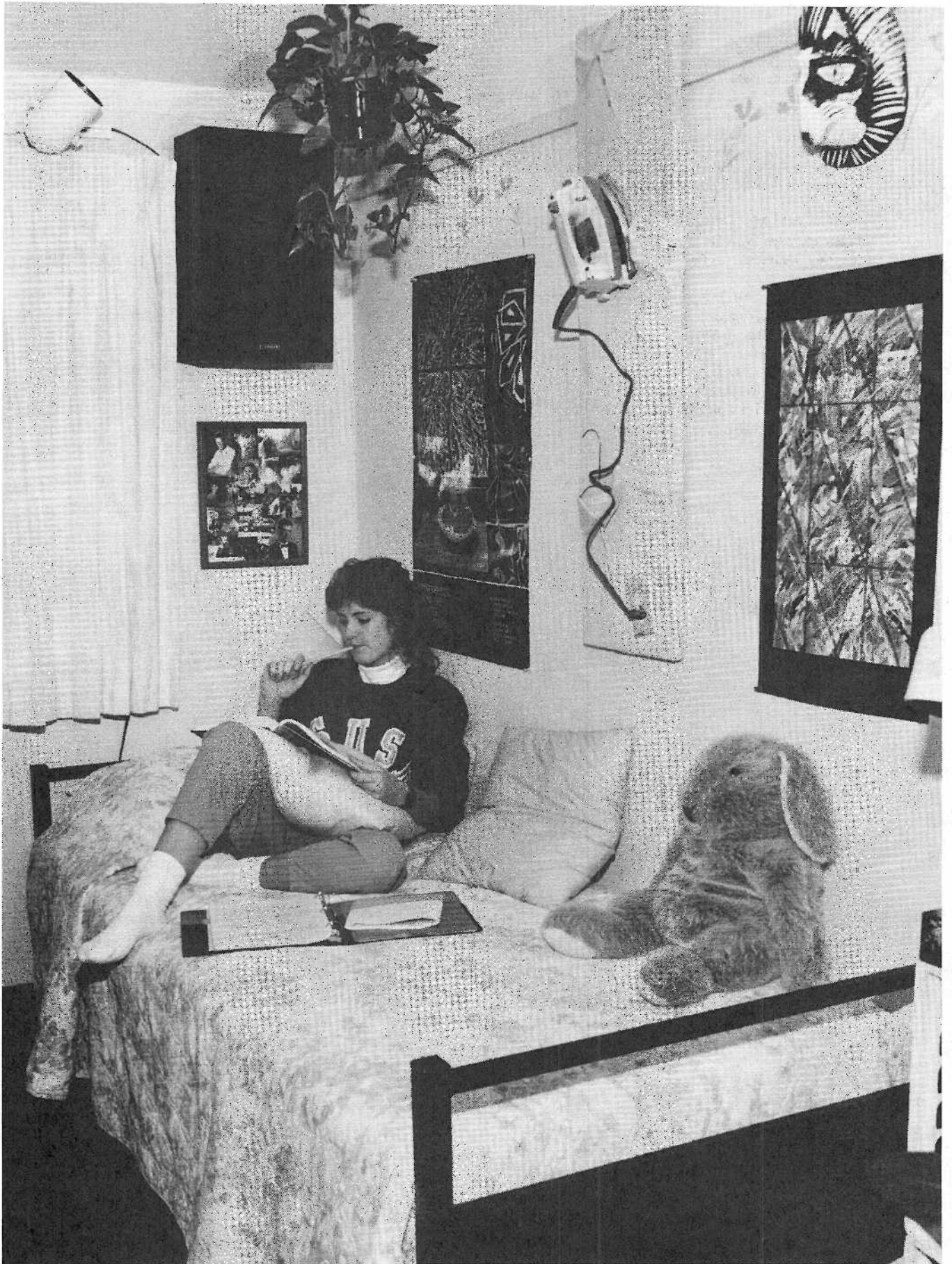
Studio Music Instructor

Diploma 1947, B.S. in Viola 1949, Juilliard School of Music.

Armen Turadian, 1977

Studio Music Instructor

B.M. 1949, Oberlin College; M.M. 1951, University of
Southern California.



Appendix

Institutional and Financial Assistance Information

The following information concerning student financial assistance may be obtained from Ted Krug, director of financial aid, Room 143, Student Services Building, phone 880-5220:

1. Student financial assistance programs available to students who enroll at California State University, San Bernardino;
2. The method by which such assistance is distributed among recipients who enroll at California State University, San Bernardino;
3. The means, including forms, by which application for student financial assistance is made; the requirements for accurately preparing such applications;
4. The rights and responsibilities of students receiving financial assistance; and
5. The standards the student must maintain to be considered to be making satisfactory progress for the purpose of establishing and maintaining eligibility for financial assistance.

The following information concerning the cost of attending California State University, San Bernardino is available from Ted Krug, director of financial aid, Room 143, Student Services Building, phone 880-5220.

1. Fees and tuition (where applicable);
2. Estimated costs of books and supplies;
3. Estimates of typical student room and board costs and typical commuting costs; and
4. Any additional costs of the program in which the student is enrolled or expresses a specific interest.

Information concerning the refund policy of California State University, San Bernardino for the return of unearned tuition and fees or other refundable portions of costs is available from Don Saponetti, accounting officer, Room 115, Administration Building, phone 880-5153.

Information concerning California State University, San Bernardino's policies regarding any refund due to the federal Title IV student assistance programs as required by the regulations is available from Ted Krug, director of financial aid, Room 143, Student Services Building, 880-5220.

Information concerning the academic programs of California State University, San Bernardino may be obtained from Dr. Jerrold E. Pritchard, associate vice president, academic programs, Room 124, Administration Building, phone 880-5056. This information may include:

1. The current degree programs and other educational and training programs;
2. The instructional, laboratory and other physical plant facilities which relate to the academic program;
3. The faculty and other instructional personnel;

4. Data regarding student retention at California State University, San Bernardino and, if available, the number and percentage of students completing the program in which the student is enrolled or expresses interest; and
5. The names of associations, agencies, or governmental bodies which accredit, approve, or license the institution and its programs, and the procedures under which any current or prospective student may obtain or review upon request a copy of the documents describing the institution's accreditation, approval, or licensing.

Information regarding special facilities and services available to handicapped students may be obtained from Dr. Theron Pace, director of Services to Students with Disabilities, Room 101, Pfau Library Building, phone 880-5238.

Career Placement

The Career Development Center may furnish, upon request, information about the employment of students who graduate from programs or courses of study preparing students for a particular career field. This information includes data concerning the average starting salary and the percentage of previously enrolled students who obtained employment. The information may include data collected from either graduates of the campus or graduates of all campuses in The California State University.

Determination of Residence For Nonresident Tuition Purposes

The campus Admissions Office determines the residence status of all new and returning students for nonresident tuition purposes. Responses to the Application for Admission and, if necessary, other evidence furnished by the student are used in making this determination. A student who fails to submit adequate information to establish a right to classification as a California resident will be classified as a nonresident.

The following statement of the rules regarding residency determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residence determination for tuition purposes by The California State University is found in Education Code Sections 68000-68090, 68121, 68123, 68124, 89705-89707.5, and 90408, and in Title 5 of the California Code of Regulations, Sections 41900-41912. A copy of the statutes and regulations is available for inspection at the campus Admissions Office.

Legal residence may be established by an adult who is physically present in the state and who, at the same time, intends to make California his or her permanent home. Steps must be taken at least

one year prior to the residence determination date to show an intent to make California the permanent home with concurrent relinquishment of the prior legal residence. The steps necessary to show California residency intent will vary from case to case. Included among the steps may be registering to vote and voting in elections in California; filing resident California state income tax forms on total income; ownership of residential property or continuous occupancy or renting of an apartment on a lease basis where one's permanent belongings are kept; maintaining active resident memberships in California professional or social organizations; maintaining California vehicle plates and operator's license; maintaining active savings and checking accounts in California banks; maintaining permanent military address and home of record in California if one is in the military service.

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

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

A married person may establish his or her residence, independent of his or her spouse.

An alien may establish his or her residence, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. An unmarried minor alien derives his or her residence from the parent with whom the minor maintains or last maintained his or her place of abode.

Nonresident students seeking reclassification are required by law to complete a supplemental questionnaire concerning financial independence.

The general rule is that a student must have been a California resident for at least one year immediately preceding the residence determination date in order to qualify as a "resident student" for tuition purposes. A residence determination date is set for each academic term and is the date from which residence is determined for that term.

Residence determination dates are:

<i>Quarter</i>	<i>Determination Date</i>
Fall	September 20
Winter	January 5
Spring	April 1
Summer	July 1

Questions regarding residence determination dates should be directed to the campus Admissions Office which can give the residence determination date for the term for which the student is registering.

There are exceptions for nonresident tuition, including:

1. Persons below the age of 19 whose parents were residents of California but who left the state while the student who remained was still a minor. When the minor reaches age 18, the exception continues for one year to enable the student to qualify as a resident student.

2. Minors who have been present in California with the intent of acquiring residence for more than a year before the residence determination date and entirely self-supporting for that period of time.

3. Persons below the age of 19 who have lived with and have been under the continuous direct care and control of an adult, not a parent, for the two years immediately preceding the residence determination date. Such adult must have been a California resident for the most recent year.

4. Dependent children and spouses of persons in active military service stationed in California on the residence determination date. The exception, once attained, is not affected by retirement or transfer of the military person outside the state.

5. Military personnel in active service stationed in California on the residence determination date for purposes other than education at state-supported institutions of higher education.

6. Dependent children of a California resident who has been a California resident for the most recent year. This exception continues until the student has resided in the state the minimum time necessary to become a resident, so long as continuous residence is maintained at an institution.

7. Graduates of any school located in California that is operated by the United States Bureau of Indian Affairs, including, but not limited to, the Sherman Indian High School. The exception continues so long as continuous attendance is maintained by the student at an institution.

8. Certain credentialed, full-time employees of California school districts.

9. Full-time State University employees and their children and spouses. State employees assigned to work outside the state and their children and spouses. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year.

10. Certain exchange students.

11. Children of deceased public law enforcement or fire suppression employees, who were California residents, and who were killed in the course of law enforcement or fire suppression duties.

Any student, following a final campus decision on his or her residence classification only, may make written appeal to: The California State University, Office of General Counsel, 400 Golden Shore, Long Beach, CA 90802-4275, within 120 calendar days of notification of the final decision on

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

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

Privacy Rights of Students in Education Records

The federal Family Education Rights and Privacy Act of 1974 (20 U.S.C. 1232g) and regulations adopted thereunder (34 C.F.R. 99) and California Education Code Section 67100 et seq., set out requirements designed to protect the privacy of students concerning their records maintained by the campus. Specifically, the statute and regulations govern access to students records maintained by the campus, and the release of such records. In brief, the law provides that the campus must provide students access to records directly related to the student and an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading or otherwise inappropriate. The right to a hearing under the law does not include any right to challenge the appropriateness of a grade as determined by the instructor. The law generally requires that written consent of the student be received before releasing personally identifiable data about the student from records to other than a specified list of exceptions. The institution has adopted a set of policies and procedures concerning implementation of the statutes and the regulations on the campus. Copies of these policies and procedures may be obtained at the office of the vice president for student services. Among the types of information included in the campus statement of policies and procedures are: 1) the types of student records and the information contained therein; 2) the official responsible for the maintenance of each type of record; 3) the location of access lists which indicate persons requesting or re-

ceiving information from the record; 4) policies for reviewing and expunging records; 5) the access rights of students records; 6) the procedures for challenging the content of student records; 7) the cost which will be charged for reproducing copies of records, and 8) the right of the student to file a complaint with the Department of Education. An office and review board have been established by the Department to investigate and adjudicate violations and complaints. The office designated for this purpose is: The Family Educational Rights and Privacy Act Office (FERPA), U.S. Department of Education, 330 C St., Room 4511, Washington, D.C. 20202.

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

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

Disclosure may also be made to other persons or organizations under certain conditions (e.g. as part of accreditation or program evaluation; in response to a court order or subpoena; in connection with financial aid; or to other institutions to which the student is transferring).

Changes in Rules and Policies

Although every effort has been made to assure the accuracy of the information in this catalog, students and others who use this catalog should note that laws, rules and policies change from time to time and that these changes may alter the information contained in this publication. Changes may come in the form of statutes enacted by the Legislature, rules and policies adopted by the Board of Trustees of The California State University, by the chancellor or designee of The California State University, or by the president or designee of the institution. Further, it is not possible in a publication of this size to include all of the rules, policies and

other information which pertain to the student, the institution and The California State University. More current or complete information may be obtained from the appropriate department, school or administrative office.

Nothing in this catalog shall be construed, operate as, or have the effect of an abridgement or a limitation of any rights, powers or privileges of the Board of Trustees of The California State University, the chancellor of The California State University or the president of the campus. The trustees, the chancellor and the president are authorized by law to adopt, amend or repeal rules and policies which apply to students. This catalog does not constitute a contract or the terms and conditions of a contract between the student and the institution or The California State University. The relationship of the student to the institution is one governed by statute, rules and policy adopted by the Legislature, the trustees, the chancellor, the president and their duly authorized designees.

Eligibility Index

The eligibility index is the combination of the high school grade-point average and the score on either the American College Test (ACT) or the Scholastic Aptitude Test (SAT). For this purpose, the university computes the grade-point average on the final three years of high school studies, excluding physical education and military science, and uses bonus points for certain honors courses. CSU may offer early, provisional admission based on work completed through the junior year of high school and planned for the senior year.

Students may calculate the index by multiplying their grade-point average by 800 and adding their total score on the SAT. Or, if they took the ACT, multiply their grade-point average by 200 and add ten times the composite score from the ACT. California high school graduates (or legal residents of California for tuition purposes) need a minimum index of 2800 using the SAT or 694 using the ACT; the table below shows the combinations of test scores and averages required. Students who neither graduated from a California high school nor are a resident of California for tuition purposes need a minimum index of 3402 (SAT) or 842 or above (ACT).

Applicants with grade-point averages above 3.00 (3.60 for nonresidents) are exempt from the test requirements.

As of October 1989, ACT is introducing the Enhanced ACT Assessment (ACTE). The new ACT score scales for students testing October 1989 or later is below. For those students who took the ACT prior to October 1989, deduct 2 points from the chart for required composite score. (i.e. a gpa of 2.30 shows 24 as required. Those taking the ACT prior to October 1989 will need a 22.)

Eligibility Index Table for California High School Graduates or Residents of California														
GPA	ACT Score	SAT Score	GPA	ACT Score	SAT Score	GPA	ACT Score	SAT Score	GPA	ACT Score	SAT Score	GPA	ACT Score	SAT Score
3.00 and above qualifies with any score			2.79	14	570	2.58	18	740	2.37	22	910	2.16	27	1080
2.99	10	410	2.78	14	580	2.57	18	750	2.36	23	920	2.15	27	1080
2.98	10	420	2.77	14	590	2.56	19	760	2.35	23	920	2.14	27	1090
2.97	10	430	2.76	15	600	2.55	19	760	2.34	23	930	2.13	27	1100
2.96	11	440	2.75	15	600	2.54	19	770	2.33	23	940	2.12	27	1110
2.95	11	440	2.74	15	610	2.53	19	780	2.32	23	950	2.11	28	1120
2.94	11	450	2.73	15	620	2.52	19	790	2.31	24	960	2.10	28	1120
2.93	11	460	2.72	15	630	2.51	20	800	2.30	24	960	2.09	28	1130
2.92	11	470	2.71	16	640	2.50	20	800	2.29	24	970	2.08	28	1140
2.91	12	480	2.70	16	640	2.49	20	810	2.28	24	980	2.07	28	1150
2.90	12	480	2.69	16	650	2.48	20	820	2.27	24	990	2.06	29	1160
2.89	12	490	2.68	16	660	2.47	20	830	2.26	25	1000	2.05	29	1160
2.88	12	500	2.67	16	670	2.46	21	840	2.25	25	1000	2.04	29	1170
2.87	12	510	2.66	17	680	2.45	21	840	2.24	25	1010	2.03	29	1180
2.86	13	520	2.65	17	680	2.44	21	850	2.23	25	1020	2.02	29	1190
2.85	13	520	2.64	17	690	2.43	21	860	2.22	25	1030	2.01	30	1200
2.84	13	530	2.63	17	700	2.42	21	870	2.21	26	1040	2.00	30	1200
2.83	13	540	2.62	17	710	2.41	22	880	2.20	26	1040			
2.82	13	550	2.61	18	720	2.40	22	880	2.19	26	1050			
2.81	14	560	2.60	18	720	2.39	22	890	2.18	26	1060			
2.80	14	560	2.59	18	730	2.38	22	900	2.17	26	1070			

Below 2.00 does not
qualify for regular
admission

Student Discipline Code

Inappropriate conduct by students or applicants for admission is subject to discipline as provided in Sections 41301 through 41304 of Title 5, California Code of Regulations. These sections are as follows:

41301. Expulsion, Suspension and Probation of students. Following procedures consonant with due process established pursuant to Section 41304, any student of a campus may be expelled, suspended, placed on probation or given a lesser sanction for one or more of the following causes which must be campus related:

- (a) Cheating or plagiarism in connection with an academic program at a campus.
- (b) Forgery, alteration or misuse of campus documents, records, or identification or knowingly furnishing false information to a campus.
- (c) Misrepresentation of oneself or of an organization to be an agent of a campus.
- (d) Obstruction or disruption, on or off campus property, of the campus educational process, administrative process, or other campus function.
- (e) Physical abuse on or off campus property of the person or property of any member of the campus community or of members of his or her family or the threat of such physical abuse.
- (f) Theft of, or non-accidental damage to, campus property, or property in the possession of, or owned by, a member of the campus community.
- (g) Unauthorized entry into, unauthorized use of, or misuse of campus property.
- (h) On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction or analysis.
- (i) Knowing possession or use of explosives, dangerous chemicals or deadly weapons on campus property or at a college campus function without prior authorization of the campus president.
- (j) Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function.
- (k) Abusive behavior directed toward, or hazing of, a member of the campus community.
- (l) Violation of any order of a campus president, notice of which had been given prior to such violation and during the academic term in which the violation occurs, either by publication in the campus newspaper, or by posting on an official bulletin board designated for

this purpose, and which order is not inconsistent with any of the other provisions of this Section.

- (m) Soliciting or assisting another to do any act which would subject a student to expulsion, suspension or probation pursuant to this Section.
- (n) For purposes of this Article, the following terms are defined:
 - (1) The term "member of the campus community" is defined as meaning California State University Trustees, academic, non-academic and administrative personnel, students, and other persons while such other persons are on campus property or at a campus function.
 - (2) The term "campus property" includes:
 - (A) real or personal property in the possession of, or under the control of, the Board of Trustees of the California State University, and
 - (B) all campus feeding, retail, or residence facilities whether operated by a campus or by a campus auxiliary organization.
 - (3) The term "deadly weapons" includes any instrument or weapon of the kind commonly known as a blackjack, sling shot, billy, sandclub, sandbag, metal knuckles, any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm, any knife having a blade longer than five inches, any razor with an unguarded blade, and any metal pipe or bar used or intended to be used as a club.
 - (4) The term "behavior" includes conduct and expression.
 - (5) The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization which causes, or is likely to cause, bodily danger or physical or emotional harm to any member of the campus community; but the term "hazing" does not include customary athletic events or other similar contests or competitions.
- (o) This Section is not adopted pursuant to Education Code Section 89031.
- (p) Notwithstanding any amendment or repeal pursuant to the resolution by which any provision of this article is amended, all acts and omissions occurring prior to that effective date shall be subject to the provisions of this Article as in effect immediately prior to such effective date.

41302. Disposition of fees: Campus Emergency; Interim Suspension. The President of the campus may place on probation, suspend, or expel a student for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for

such students for the semester, quarter or summer session in which he or she is suspended or expelled shall be refunded. If the student is readmitted before the close of the semester, quarter, or summer session in which he or she is suspended, no additional tuition or fees shall be required of the student on account of the suspension.

During periods of campus emergency, as determined by the President of the individual campus, the President may, after consultation with the Chancellor, place into immediate effect any emergency regulations, procedures, and other measures deemed necessary or appropriate to meet the emergency, safeguard persons and property, and maintain educational activities.

The President may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to insure the maintenance of order. A student so placed on interim suspension shall be given prompt notice of charges and the opportunity for a hearing within 10 days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the President or designated representative, enter any campus of the California State University other than to attend the hearing. Violation of any condition of interim suspension shall be grounds for expulsion.

41303. Conduct by Applicants for Admission. Notwithstanding any provision in this Chapter 1 to the contrary, admission or readmission may be qualified or denied to any person who, while not enrolled as a student, commits acts which, were he enrolled as a student, would be the basis for disciplinary proceedings pursuant to Sections 41301 or 41302. Admission or readmission may be qualified or denied to any person who, while a student, commits acts which are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases shall be determined under procedures adopted pursuant to Section 41304.

41304. Student Disciplinary Procedures for the California State University. The Chancellor shall prescribe, and may from time to time revise, a code of student disciplinary procedures for the California State University. Subject to other applicable law, this code shall provide for determinations of fact and sanctions to be applied for conduct which is a ground of discipline under Sections 41301 or 41302, and for qualified admission or denial of admission under Section 41303; the authority of the campus President in such matters; conduct related determinations of financial aid eligibility and termination; alternative kinds of proceedings, including proceedings conducted by a Hearing Officer; time limitations; notice; conduct of hearings, including provisions governing evidence, a record,

and review; and such other related matters as may be appropriate. The Chancellor shall report to the Board actions taken under this section. The Code is administered by the coordinator of student conduct, Student Services, 880-5185.

By action of the California State Legislature, Penal Code 502 has been amended by 502.1 (chapter 1076) to include computer-related crimes as a specific violation of the student conduct code. Therefore, the following is added as a violation of student conduct: Per Section 502 and 502.1 of the Penal Code, Chapter 1076, a student may be subject to disciplinary sanctions, as found in 41301-41304 of Title 5, for violation of student conduct for computer-related crimes delineated in the Code.

Drug-Free Schools and Communities Act Amendment of 1989

As required by the Drug-Free Schools and Communities Act Amendments of 1989, university standards of student conduct prohibit the unlawful possession, use, or distribution of illicit drugs and alcohol by students on university property or as part of any university activity.

Notwithstanding other penalties provided by local, state and federal law which prohibit the above activity, under Title 5, California Code of Regulations, 41301-41304, university disciplinary sanctions which may be imposed are expulsion, suspension, probation or lesser sanctions.

Studies on the effects of controlled substances have demonstrated that the use of such substances can lead to addiction, lung damage, heart damage, brain damage, unpredictable behavior, paranoia and other physical and mental disorders.

The Counseling Center can assist students in locating available drug or alcohol counseling, treatment or rehabilitation or re-entry programs. The Counseling Center is located in the Physical Sciences Building, Room 227, 880-5040.

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

The 20 campuses and the Chancellor's Office of The California State University are financed primarily through funding provided by the taxpayers of California. The total state appropriation to the CSU for 1990-91, including capital outlay and employee compensation increases is \$1,904,029,000. The total cost of education for CSU, however, is \$2,111,513,409 which provides support for a projected 274,500 full-time equivalent (FTE)^a students.

The total cost of education in the CSU is defined as the expenditures for current operations, includ-

ing payments made to the students in the form of financial aid, and all fully reimbursed programs contained in state appropriations, but excluding capital outlay appropriations. The average cost of education is determined by dividing the total cost by the total FTEs. The average cost is further differentiated into three categories: state support (the state appropriation, excluding capital outlay), student fee support, and support from other sources (including federal funds).

Thus, excluding costs which relate to capital outlay (i.e., building amortization), the average cost of education per FTE student is \$7,692. Of this amount, the average student fee support per FTE is \$1,183. The calculation for this latter amount includes the amount paid by nonresident students.

SOURCE OF FUNDS AND AVERAGE COSTS FOR
1990-91 CSU BUDGET
(Projected enrollment: 274,500 FTE)

	Amount	Average Cost Per Student (FTE) ^a	Percentage
Total cost of education	\$2,111,513,409 ^b	\$7,692	100.0%
State Appropriation	1,691,403,000 ^c	6,162	80.1%
Student fee support	324,672,787	1,183 ^d	15.4%
Support from other sources	95,437,622	348	4.5%

^a For budgetary purposes, full-time equivalent (FTE) translates total head count into total academic student load equivalent to 15 units per term. Some students enroll for more than 15 units; some students enroll for fewer than 15 units.

^b The total cost of education does not include the amount related to lottery and the capital investment of the CSU. The estimated replacement cost of all the system's permanent facilities and equipment on the 20 campuses is currently valued at \$6.5 billion, excluding the cost of land.

^c This figure does not include the capital outlay appropriation of \$212,626,000.

^d The average costs paid by a student include the state university fee, application fee, and nonresident tuition. Individual students may pay less than \$1,183 depending on whether they are part-time, full-time, resident or non-resident students.

Refund of Fees

Details concerning fees which may be refunded, the circumstances under which fees may be refunded and the appropriate procedure to be followed in seeking refunds may be obtained by consulting Section 41803 (parking fees), 41913 (nonresident tuition), 42019 (housing charges) and 41802 (all other fees) of Title 5, California Code of Regulations. In all cases it is important to act quickly in applying for a refund. Information concerning any aspect of the refund of fees may be obtained from the Business Office.

Procedure for Establishment or Abolishment of Student Body Fee

The law governing The California State University provides that a student body fee may be established by student referendum with the approval of two-thirds of those students voting. The student body fee was established at California State University, San Bernardino by student referendum on February 15, 1966. The same fee can be abolished by a similar two-thirds approval of students voting on a referendum called for by a petition signed by 10% of the regularly enrolled students (Education Code, Section 89300). The level of the fee is set by the chancellor. An increase in the student body fee may be approved by the chancellor only following a referendum on the fee increase approved by a majority of students voting. Student body fees support a variety of cultural and recreational programs, child care centers and special student support programs.

Nondiscrimination Policy

Sex

The California State University does not discriminate on the basis of sex in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972, as amended, and the administrative regulations adopted thereunder prohibit discrimination on the basis of sex in education programs and activities operated by California State University, San Bernardino. Such programs and activities include admission of students and employment. Inquiries concerning the application of Title IX to programs and activities of California State University, San Bernardino may be referred to Dale T. West, personnel officer, or Dr. J. Cordell Robinson, associate vice president, academic personnel, the campus officers assigned the administrative responsibility of reviewing such matters or to the Regional Director of the Office of Civil Rights, Region 9, 221 Main Street, 10th Floor, San Francisco, CA 94105.

Handicap

The California State University does not discriminate on the basis of handicap in admission or access to, or treatment or employment in, its programs and activities. Section 504 of the Rehabilitation Act of 1973, as amended, and the regulations adopted thereunder prohibit such discrimination. Dr. J. Cordell Robinson, associate vice president, academic personnel, and Dr. Juan Gonzalez, vice president for student services, have been designated to coordinate the efforts of California State University, San Bernardino to comply with the Act in its implementing regulations. In-

quiries concerning compliance may be addressed to these persons at 5500 University Parkway, San Bernardino, CA 92407, (714) 880-5000.

Race, Color or National Origin

The California State University complies with the requirements of Title VI of the Civil Rights Act of 1964 and the regulations adopted thereunder. No person shall, on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program of The California State University.

Sexual Harassment

It is the policy of California State University, San Bernardino to maintain a working and learning environment free from sexual harassment of its students, employees and those who apply for student and employee status. Questions regarding sexual harassment should be addressed to Dale T. West, personnel officer, or Dr. J. Cordell Robinson, associate vice president, academic personnel.

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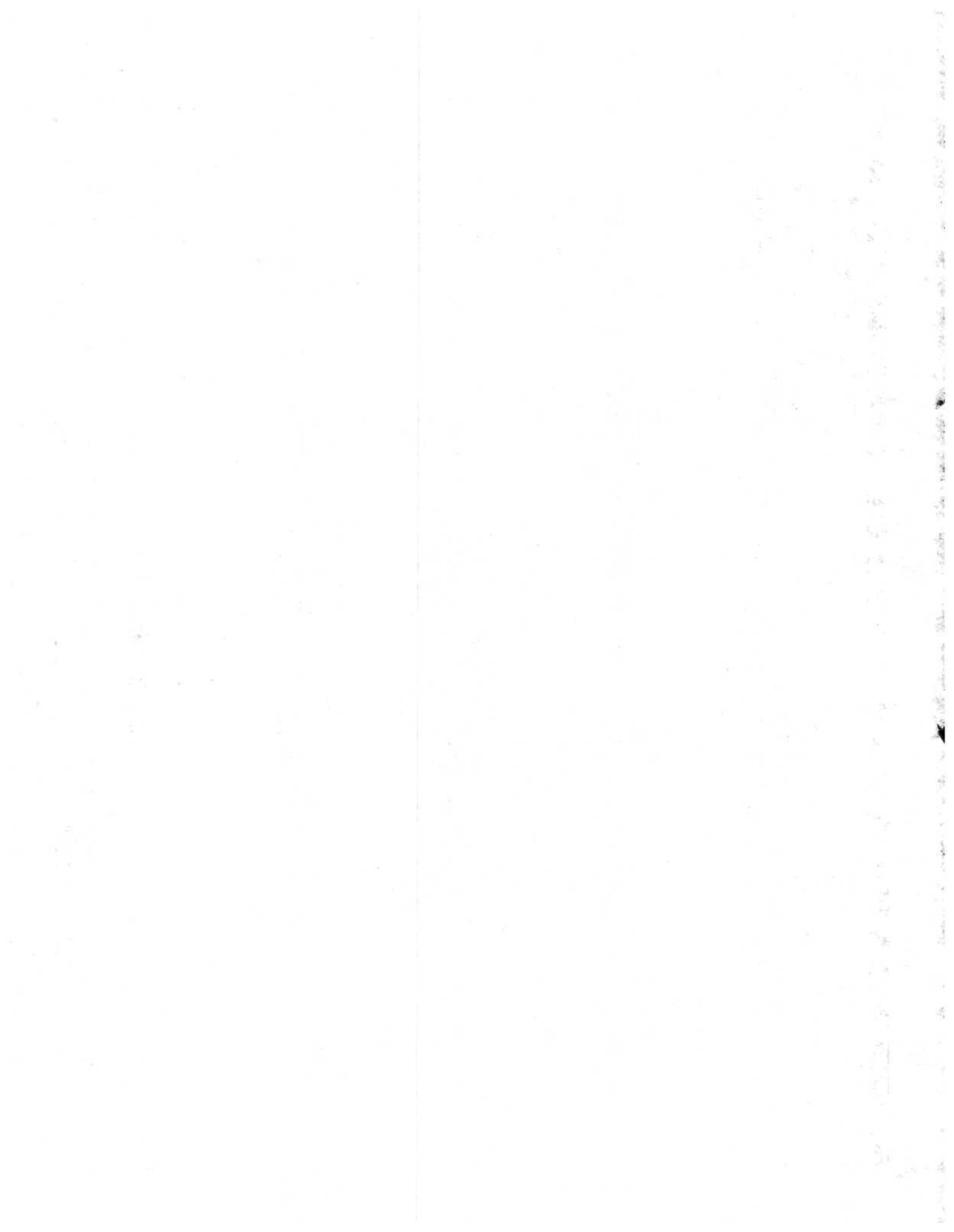
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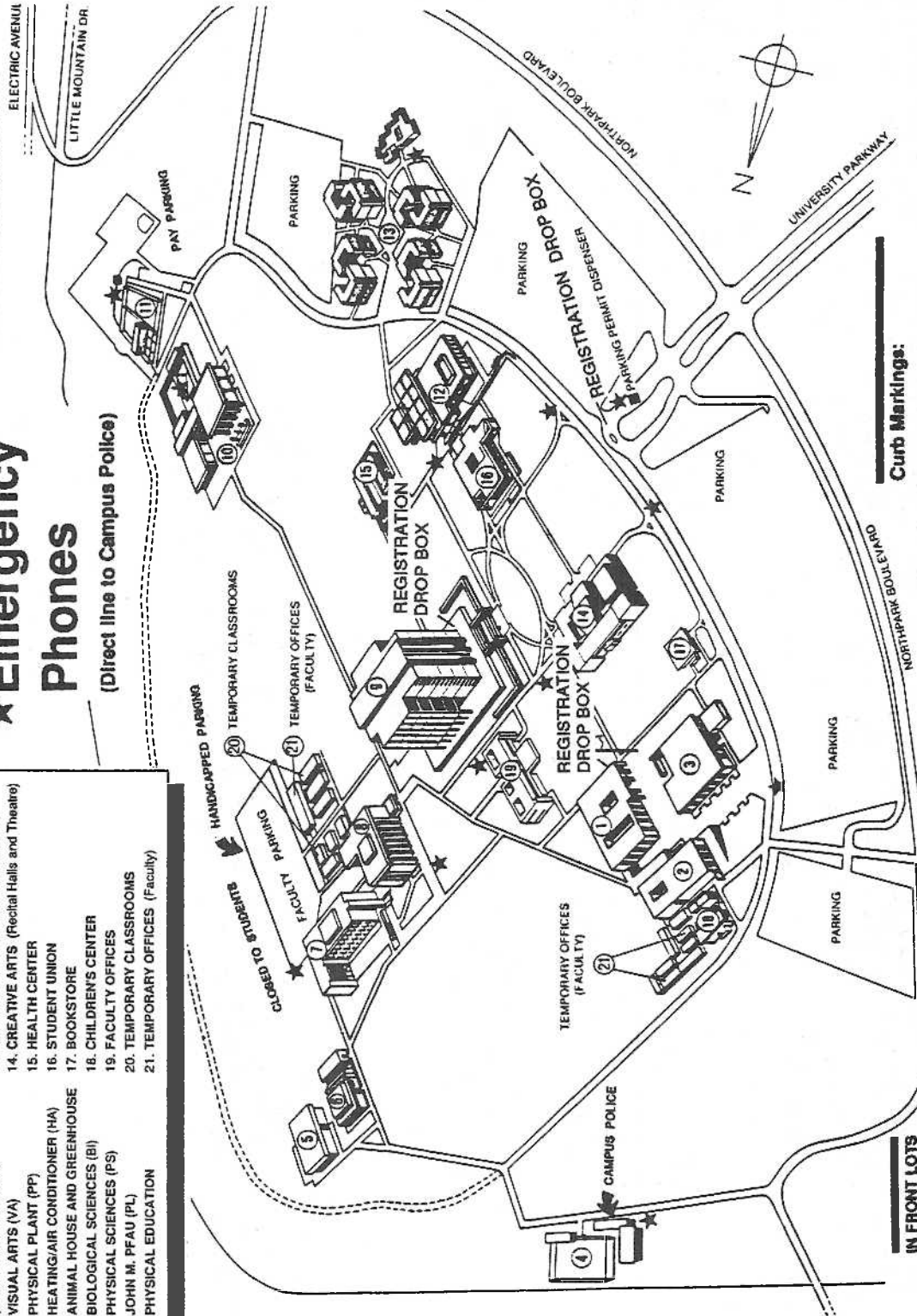
Department of Public Safety Location:

Physical Plant Building
 Mailing: 5500 University Parkway
 San Bernardino, California 92407

★ Emergencies Phones

(Direct line to Campus Police)

- | | |
|--|---|
| 1. ADMINISTRATION (AD) | 11. TENNIS & HANDBALL COURTS |
| 2. STUDENT SERVICES (SS)
(Admissions and Records) | 12. COMMONS |
| 3. VISUAL ARTS (VA) | 13. SERRANO VILLAGE (Residence Halls) |
| 4. PHYSICAL PLANT (PP) | 14. CREATIVE ARTS (Recital Halls and Theatre) |
| 5. HEATING/AIR CONDITIONER (HA) | 15. HEALTH CENTER |
| 6. ANIMAL HOUSE AND GREENHOUSE | 16. STUDENT UNION |
| 7. BIOLOGICAL SCIENCES (BI) | 17. BOOKSTORE |
| 8. PHYSICAL SCIENCES (PS) | 18. CHILDREN'S CENTER |
| 9. JOHN M. PFAU (PL) | 19. FACULTY OFFICES |
| 10. PHYSICAL EDUCATION | 20. TEMPORARY CLASSROOMS |
| | 21. TEMPORARY OFFICES (Faculty) |

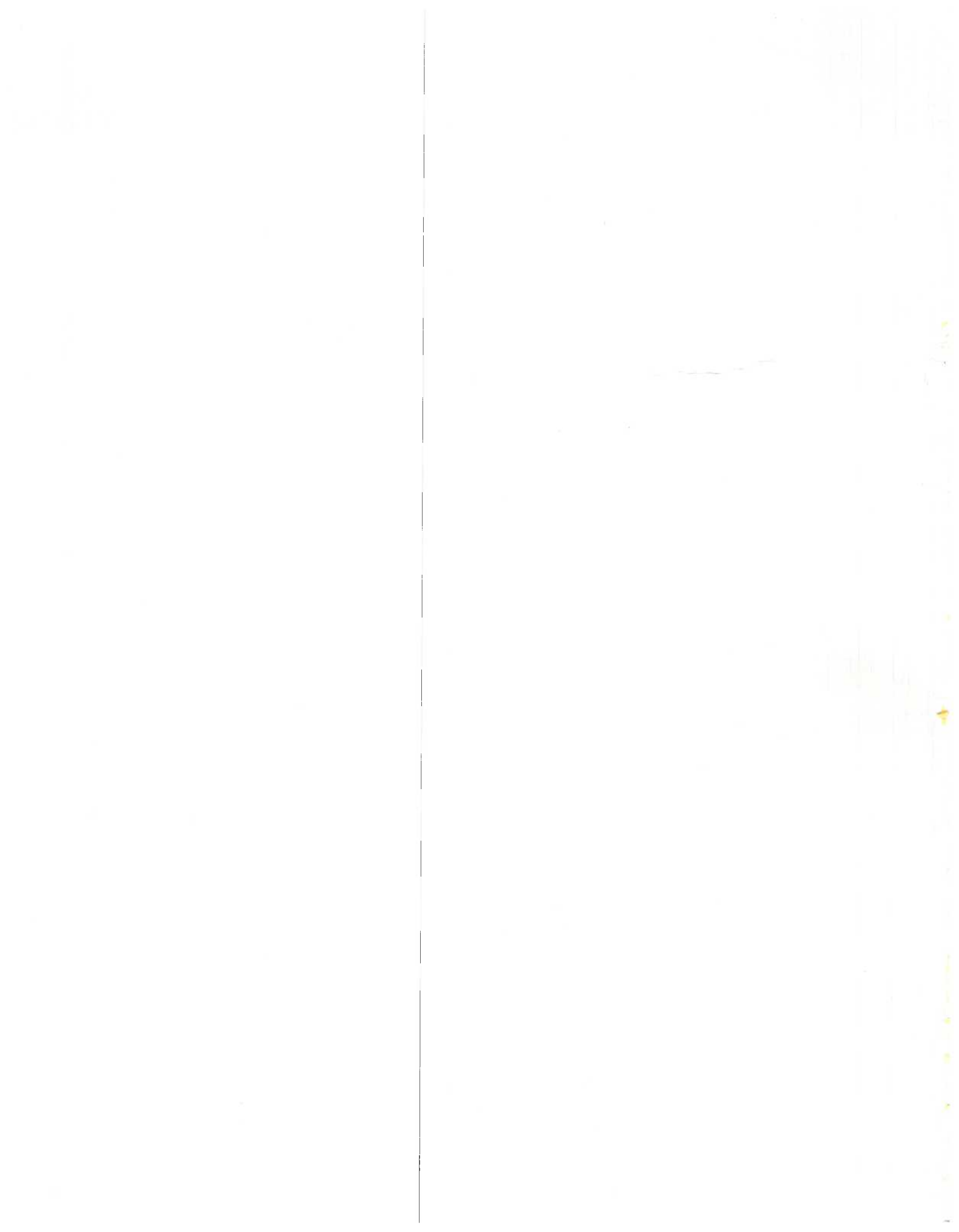


Curb Markings:

- Red — No Parking
- Yellow — 20 Minute Zone/Restricted Parking
- Blue — Handicapped Parking
- Green — 30 Minute Parking

IN FRONT LOTS

- Handicapped parking: Rows 1, 2, 6, 7, 12, 20, 21
- Motorcycle parking: Rows 1, 6, 13
- RESIDENCE HALLS LOT:
- Handicapped parking: Row 1





CALIFORNIA STATE UNIVERSITY

SAN BERNARDINO

5500 UNIVERSITY PARKWAY

SAN BERNARDINO, CA

92407-2397